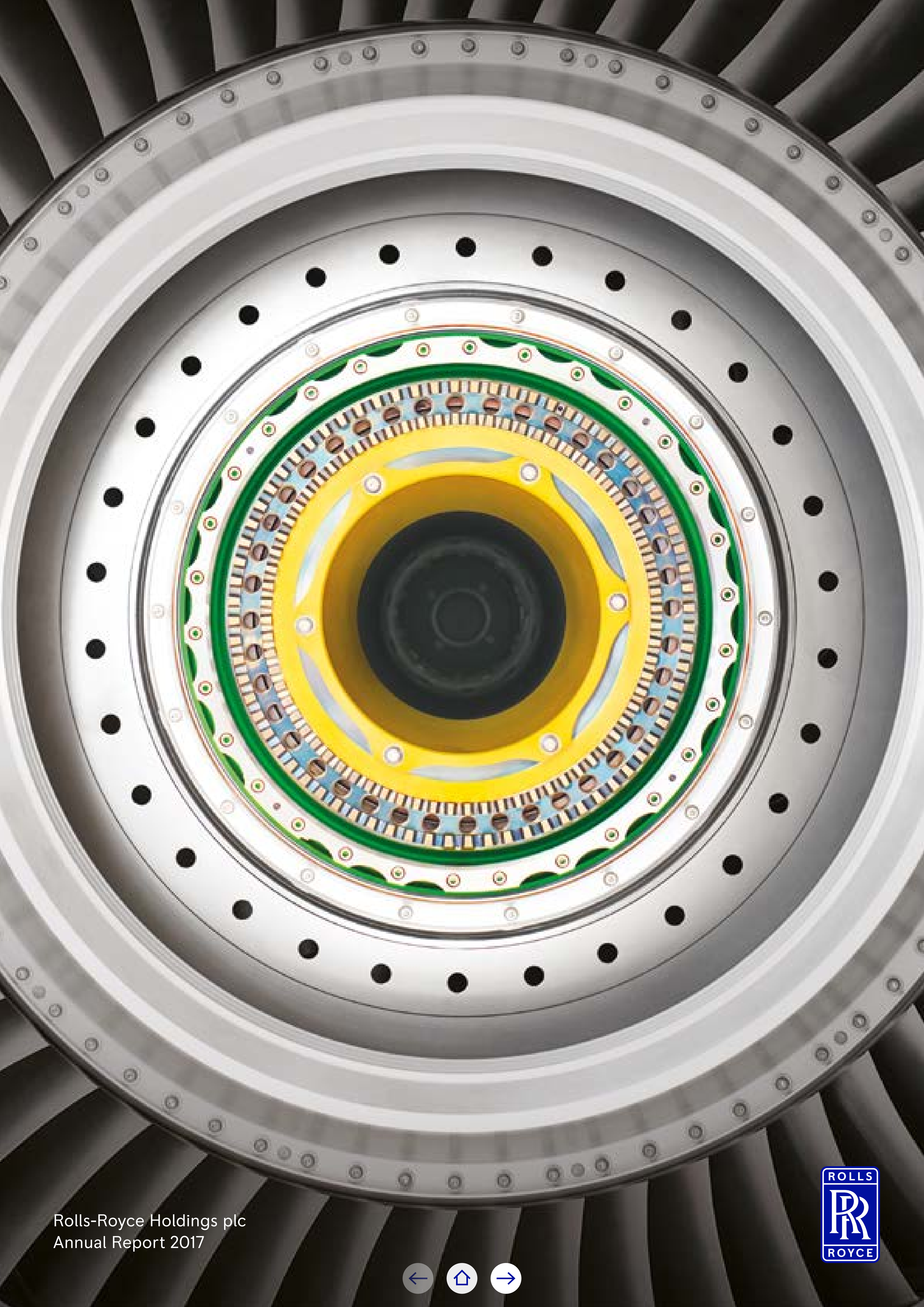


Rolls-Royce Holdings plc
Annual Report 2017

Pioneering the power that matters

Rolls-Royce pioneers cutting-edge technologies that deliver the cleanest, safest and most competitive solutions to meet our planet's vital power needs.

Financial Highlights*†‡

Measure	2017	2016
Free cash flow	£273m	2016: £100m
Order book	£78,476m	2016: £80,910m
Underlying revenue	£15,090m	2016: £13,783m
Reported revenue	£16,307m	2016: £14,955m
Underlying operating profit	£1,175m	2016: £915m
Reported operating profit	£1,287m	2016: £44m
Underlying profit before tax	£1,071m	2016: £813m
Reported profit/(loss) before tax	£4,897m	2016: £(4,636)m
Underlying earnings per share	40.5p	2016: 30.1p
Reported earnings per share	229.4p	2016: (220.1)p
Full year payment to shareholders	11.7p	2016: 11.7p
Net debt	£(520)m	2016: £(225)m

* All figures in the narrative of the Strategic Report are underlying unless otherwise stated. Underlying explanation is in note 2 to the Financial Statements on page 132.
† Unless otherwise stated, all underlying financial data excludes the impact of the acquisition of ITP Aero, completed on 19 December 2017.
‡ All references to organic change are at constant translational currency, excluding M&A.

Forward-looking statements

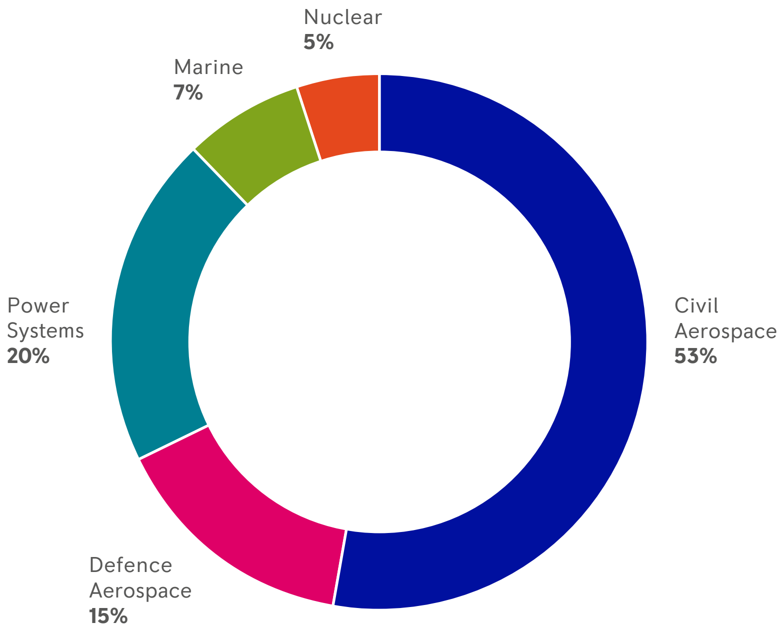
This Annual Report contains forward-looking statements. Any statements that express forecasts, expectations and projections are not guarantees of future performance and guidance may be updated from time to time. This report is intended to provide information to shareholders, and is not designed to be relied upon by any other party or for any other purpose, and the Company and its Directors accept no liability to any other person other than that required under English law. Latest information will be made available on the Group's website. By their nature, these statements involve risk and uncertainty, and a number of factors could cause material differences to the actual results or developments.

Contents

Group at a Glance

We are one of the world's leading industrial technology companies, creating power and propulsion systems for use on land, at sea and in the air.

Underlying revenue mix in 2017



Underlying revenue

£15,090m

Underlying operating profit

£1,175m

Free cash flow

£273m

Gross R&D expenditure

£1.4bn

Patents approved for filing

704

Countries

50

Engineers (year end)

18,245

Employees (year average)

50,000

Read more in our Business Review on pages 20 to 41

Our five businesses in 2017

Civil Aerospace

Civil Aerospace is a major manufacturer of aero engines for the large commercial aircraft, regional jet and business aviation markets. The business uses its engineering expertise, in-depth knowledge and capabilities to provide through-life support solutions for its customers.

See page 20

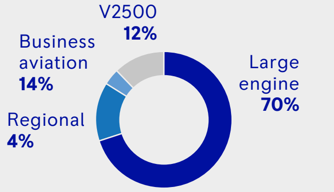
Underlying revenue

£8,023m

Underlying operating profit

£520m

Underlying revenue mix



Defence Aerospace

Defence Aerospace is a market leader in defence aero engines for military transport and patrol aircraft and has strong positions in other sectors, including combat, training aircraft and helicopters.

See page 26

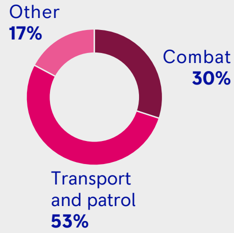
Underlying revenue

£2,275m

Underlying operating profit

£374m

Underlying revenue mix



Power Systems

Power Systems is a leading provider of high-speed and medium-speed reciprocating engines, complete propulsion systems and distributed energy solutions. The business serves the marine, defence, power generation and industrial markets.

See page 30

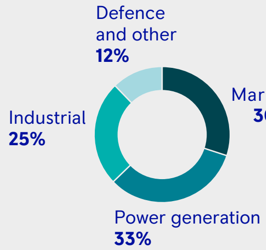
Underlying revenue

£2,923m

Underlying operating profit

£330m

Underlying revenue mix



Marine

Marine manufactures and services propulsion and handling solutions for the maritime offshore, merchant and naval markets, ranging from standalone products to complex integrated systems.

See page 34

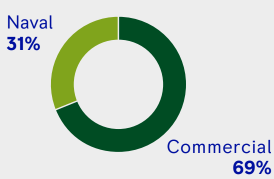
Underlying revenue

£1,077m

Underlying operating loss

£(25)m

Underlying revenue mix



Nuclear

Nuclear is the technical authority for the UK nuclear steam raising plant that powers the Royal Navy's nuclear submarine fleet; managing plant design, safety, manufacture and service support. Our civil nuclear operation supplies safety-critical systems to about half the world's nuclear power plants.

See page 38

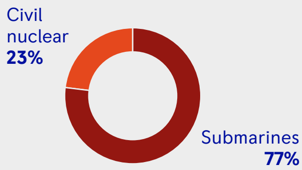
Underlying revenue

£818m

Underlying operating profit

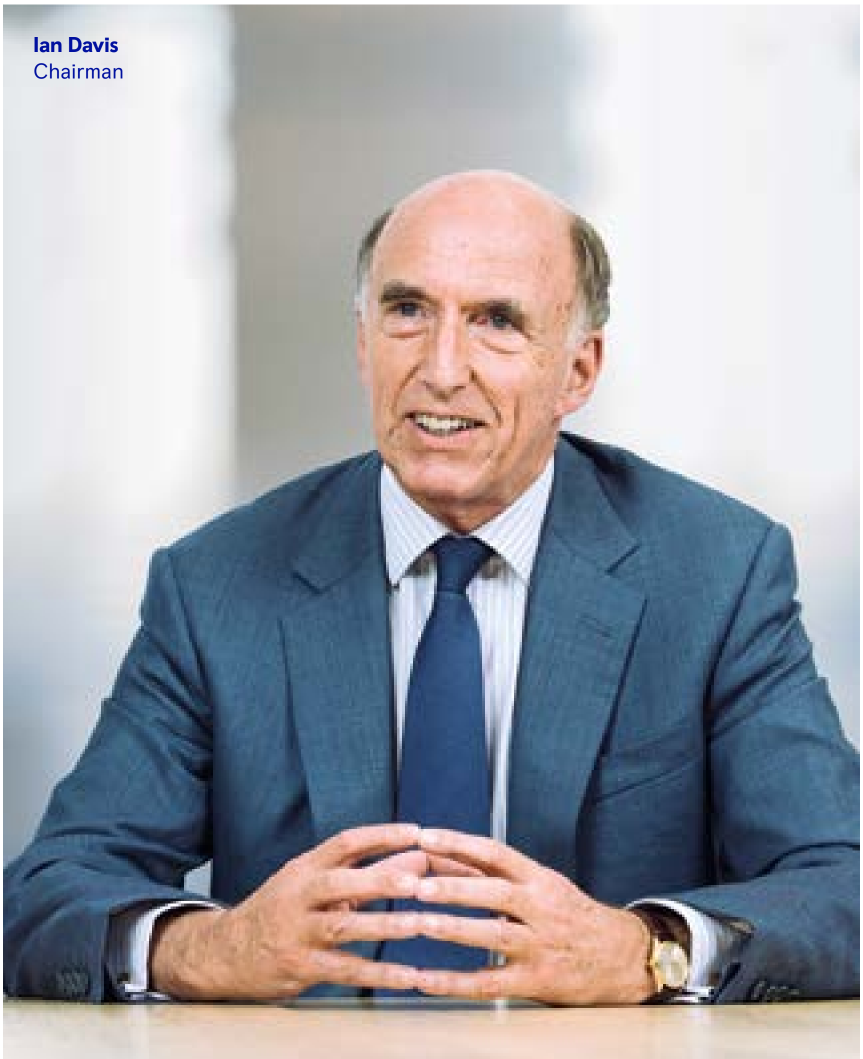
£38m

Underlying revenue mix



* From January 2018, Rolls-Royce will be reporting as three new core business units. See page 8 for more information.

Chairman's Statement



Ian Davis
Chairman

Our focus on improving operational and financial performance has been demonstrated in this year's results. Our new vision and refreshed strategy lays a firm foundation for creating long-term shareholder value.

Chairman's Introduction to Directors' Report page 64

2017 Overview

After a very challenging few years, I believe that Rolls-Royce is building real and sustainable momentum. Progress will not be smooth, given the nature of the industry and the number of new products we are in the process of introducing into the market, and I do not want to underestimate the risks. But, the medium-term prospects look increasingly bright and the long-term opportunities for us remain significant. Our near to medium-term priorities are: to improve operational performance, with the focus on product reliability for our customers and on cost competitiveness; and cash flow generation for our long-term prosperity. Growth opportunities for us in our core industries are excellent. We have to build customer satisfaction and cash flow and, as a consequence, strengthen investor confidence, to enable us to capitalise on these. That is what we are determined to do.

Warren East, our Chief Executive, gives in his report a full explanation of major milestones and achievements in 2017. I would like to highlight a few key developments. There has been great progress in building the executive leadership team. We have refreshed our strategy and long-term vision. We have refined our capital allocation process. We have delivered financial results ahead of budget and expectations and we have ramped up production in our Civil Aerospace business. We have initiated a simplification of the Group into three businesses and are embarking upon a fundamental restructuring. This will make for a simplified and more focused business.

At the same time, we have had to deal with some significant operational challenges, most notably with some in-service fleet issues on two of our Civil Aerospace large engine programmes. We are acutely aware of the challenge this has created for some of our customers. Our absolute priority is to overcome these. Customer trust and confidence – the bedrock of any business – is, and must be, our number one goal.

We are continually looking to inject pace and simplicity into our business operations, even as we expand production to meet the growth in demand for our products. We are well advanced in the complex process of overhauling our management information systems. Our intent is to provide the data we need, not only to manage the business effectively, but to provide greater clarity on outcomes and progress – progress in real economic, not just accounting, terms.

We are a long-term business with long investment cycles. We have continued our commitment to, and investment in, next generation technologies and facilities that will be crucial to competitiveness and value creation. We have met our key technology milestones. I would draw attention to the fact that we have sustained investment in capital expenditure and R&D notwithstanding short-term financial pressures.

We are putting increased emphasis on strategic partnerships and collaborations. These collaborations range across electronics, composite materials, gearbox technology, digital technologies and services. We are determined to be at the forefront of the 'next technology revolution' built around artificial intelligence, data analytics, machine learning and digital. This will be crucial to our future competitiveness as well as to our ability to attract and retain exceptional talent.

I would also like to draw attention to the progress we have made on the management of environmental impacts and the increased emphasis we are giving to safety. These are foundational goals and responsibilities that I, and the Board, monitor carefully.

Governance and culture

In January 2017, the Group entered into deferred prosecution agreements with the UK Serious Fraud Office and other authorities. This has been a sobering experience for all concerned. The Board and executive team remain totally committed to always acting with integrity and to ensuring that the appropriate values and behaviours are embedded throughout the Group. This is an ongoing and relentless task and it is an absolute priority for the Board and management.

Culture, as always, is key. There is much to cherish and to protect in the Rolls-Royce culture. But we also have to develop and adapt. We need to be more transparent and open, and to engage more externally. Performance management, cost competitiveness and operational delivery against commitments are as fundamental to our longer-term aspirations and goals as are product innovation and technology.

As a Board, we are determined to role model these cultural ambitions. We have, for example, introduced a Meet the Board initiative where employees have the opportunity to meet with and question the Board at an 'employee AGM' style event. In addition – as part of our focus on a more open, inclusive culture – I asked Irene Dorner, one of our Non-Executive Directors, to take on an employee champion role on the Board.

An additional cultural priority is to build a more diverse organisation. This is a daunting challenge for us, and indeed for the whole sector. Progress to date has been disappointing. We have to do more and this remains high on my agenda and on my list of frustrations. Rolls-Royce has an extraordinary brand and we are exceptionally well-placed to defy the traditional engineering industry norms. I am hugely encouraged by the great work that so many colleagues from Rolls-Royce across the world do to inspire the next generation in science, technology, engineering and maths (STEM) careers. I continue to be inspired by the work done by our support networks and employee resource groups to stimulate and reinforce diversity. I am also very pleased that the proportion of women we recruit as apprentices and graduates increased again in 2017. But there still remains much to be done to improve diversity and inclusion and to accelerate, in particular, the advancement of talented women and high potential younger executives into senior management roles. This is a huge talent opportunity for us.

As part of this focus on diversity in 2017, I introduced a new Board apprentice programme designed to give prospective leaders within the business insights and experience into the working of the Board.

Investor trust and confidence

I am acutely aware that in recent years our credibility with investors has been damaged. We are determined to restore it and we know that it is results, not words, that will be the catalyst. This is a long-term business that needs shareholders with a long-term perspective. That perspective must be based on a long-term confidence in the growth prospects of the industry, in the value creation potential of the Company and in the strength of the management team.

Risk assessment is an important part of the Board's work. This has been important input into our viability statement, which we see as a lot more than a short-term liquidity assessment. There are significant risks – most notably product reliability failure, a disorderly Brexit or an external global shock that would disrupt travel. We have contingency plans to address these risks. We understand the importance of dividends to many of our shareholders, and also the importance of rebuilding a strong balance sheet and credit rating. I do not believe that, in the long term, these are incompatible with our growth aspirations. We will talk more during 2018 about our capital allocation plans and priorities. For the short term, our focus is on generating cash to meet the investment needs of the business and to strengthen our balance sheet and credit rating.

Delivering on our financial commitments is fundamental to investor confidence and trust. In addition, we are striving to reinforce this with more open engagement with investors. In addition to our regular interactions with investors, we have held a series of governance events, including a seminar in the spring of 2017. We plan to continue this level of engagement.

Improved transparency of financial results plays an important role in investor confidence. We are working hard to make our accounts and, more importantly, our business economics, more intelligible and accessible. The implications of IFRS 15 and IFRS 16 may complicate matters in the short term and we will work to clarify the impact of these new accounting regulations. The accounting regulation changes will, I believe, be beneficial. It is in everyone's interest to better align the recognition of profit and cash. Profitability, and return on capital in particular, are crucial strategic measures but for the short term, cash flow is our dominant financial metric.

Conclusion

I hope the preceding words have been helpful in clarifying where we stand. We are, I believe, building real momentum. Our short-term focus over the next two to three years is on meeting customer commitments and requirements whilst generating substantial increases in cash flow. Longer term, our goal is to build and grow our business so that, in time, we are a world-leading industrial technology company focused on pioneering the power that matters. This is not an industry sector short of growth options. Our long-term aim is to capitalise on them, effectively and responsibly.

I would like to conclude this statement with a big thanks to all my colleagues in Rolls-Royce. It has been another demanding year, but one marked by real progress. The drive, dedication and ingenuity of our people (and, indeed, of our former employees) across the globe is extraordinary and, I believe, the Company's single biggest asset. I continue to be inspired by the dedication and sheer decency of our people and their passion for Rolls-Royce.

Ian Davis
Chairman

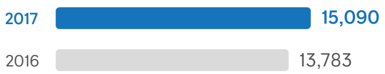
Chief Executive's Review

Warren East
Chief Executive

Rolls-Royce made good progress in 2017, achieving a number of important operational and technological milestones, while focusing on managing significant in-service engine issues in Civil Aerospace. Looking forward, sustaining this improvement and delivering increasing cash flow generation will strengthen our position as one of the world's leading industrial technology companies.

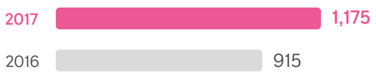
Underlying revenue (£m)

£15,090m



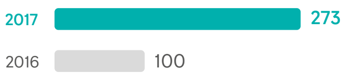
Underlying operating profit (£m)

£1,175m



Free cash flow (£m)

£273m



Review of 2017

Overview

Rolls-Royce made good progress in 2017, achieving a number of important operational and technological milestones. Results were ahead of our expectations as we delivered growth in underlying revenue, underlying operating profit and free cash flow. This was achieved while focusing on managing the well-publicised in-service fleet issues on the Trent 1000 and Trent 900 engines that led to increased costs as efforts were made to minimise the disruptive impact on our customers and to develop longer-term solutions. There was better understanding across the business of the need for cultural change and tangible progress in our efforts to increase openness and transparency with investors. We strengthened the executive leadership team (ELT) as we continued to drive cultural change across the Group. We completed our strategic update and are ready to move forward in our drive for pace and simplicity, restructuring from five to three businesses, with a review of strategic options for our commercial marine operation.

Civil Aerospace had some notable successes in 2017 with record levels of large engine deliveries, further expanding the installed fleet and generating service revenue growth. We made good progress with our new large engine programmes, achieving the first flight of three new engine designs within a 12-month period. Power Systems delivered a strong performance in its first year with new leadership, streamlining the product portfolio and making new inroads into the Chinese market. Defence Aerospace had another solid year as we renewed a number of core US contracts and further developed our service delivery capability. We delivered operational improvements in Nuclear, while in Marine we established leadership in ship intelligence and autonomous shipping. We also received regulatory approval for the acquisition of ITP Aero which was completed on 19 December 2017 – see page 9.

The Group faced several challenges in the year. These are not unusual given the nature of the industries in which we operate. In Civil Aerospace, production milestones were achieved against a backdrop of capacity constraints, primarily blade manufacturing and test bed availability, driven by the in-service fleet issues on the Trent 1000 and Trent 900. As these emerged during the year, we increased our estimates of additional maintenance activity required to mitigate problems, to develop longer-term solutions and to support customers through a proactive engine management programme to minimise any disruption. In Marine, with the average Brent crude oil price remaining below US$55 per barrel for the third consecutive year, our commercial marine operation continued to see substantially reduced activity levels in its historically important offshore market.

Efficiencies from the 2015 transformation programme have achieved run-rate cost savings at the top end of our initial expectations of £200m by the end of 2017. However, costs and complexity within the Group remain too high. The further simplification announced in January 2018 to move from five to three operating businesses will enable us to act with greater pace, to innovate in core technologies and to better take advantage of future opportunities in areas such as electrification and digitalisation. It will help us to undertake a more fundamental restructuring to remove duplicated support and management functions.

Within the Group, we appreciate our talk of simplification must translate into greater enablement for our people if we are to succeed in bringing about lasting change. These efforts must begin with our leaders and during the year I brought in additional talent and experience to the ELT with the appointment of Stephen Daintith as Chief Financial Officer, Paul Stein as Chief Technology Officer and Simon Kirby as Chief Operating Officer. In early 2018, we announced Chris Cholerton would be taking up the post of President – Civil Aerospace, Tom Bell would be returning to Rolls-Royce as President – Defence and Harry Holt took up the post of Group HR Director.

2017 priorities

Strengthen	Sustain	Rebuild	Develop
our focus on engineering, operational and aftermarket excellence	the strong start to our transformation programme	trust and confidence in our long-term growth prospects	our long-term vision and strategy

2017 priorities

At the beginning of the year we set out four key priorities:

Priority 1: Strengthen our focus on engineering, operational and aftermarket excellence

Engineering excellence – our central engineering function was restructured to integrate engineering into the businesses closer to our customers. At the same time, we have created a new technology team led by the Chief Technology Officer to heighten the importance of technology in driving future growth – see pages 42 and 43. We invested over £1bn in self-funded R&D in 2017, part of which supported the installation of digital engineering tools, producing our first all-digital engine design.

> 'The Trent XWB-84 achieved over 1.2 million flying hours with unprecedented levels of reliability.'

In Civil Aerospace, while we worked to minimise the impact of in-service issues, key milestones were achieved towards entry into service for the new Trent 1000 TEN, Trent XWB-97 and Trent 7000. Testing of our new power gearbox design, a vital component in our new UltraFan demonstrator programme, has proceeded well and the Advance3 demonstrator achieved its first successful ground test. Electrification will play an increasingly important role in all areas of the Group over the coming years and during the year we established a new electrical unit. In November 2017, we announced that we will develop the E-Fan X hybrid electric aircraft demonstrator in collaboration with Airbus and Siemens; reflecting the growing importance of electrification to the long-term future of the aerospace industry.

Operational excellence – a new operating strategy was developed and we invested a further £764m in capital expenditure in 2017. Capitalising on the rapidly advancing digital techniques, our aim is to create an agile, highly productive and cost-competitive manufacturing footprint. Our new plants have already undergone a digital transformation generating an unprecedented insight into our value chain capability. We are also developing industry-leading capabilities in digital manufacturing, through innovative collaboration and partnerships, which will lead to double-digit benefits in productivity and efficiency. All our businesses had significant execution targets and product delivery milestones to achieve. Civil Aerospace delivered a 35% increase in large engine deliveries. In Defence Aerospace, the modernisation programme at the Indianapolis facility progressed well and is on track with its cost saving targets. In Power Systems, the new leadership focused the business on simplifying the product portfolio, achieving around a 20% year-on-year reduction in product variants.

Aftermarket excellence – service focus is driven by customer demand for reliability and availability. This has seen aftermarket support transition from the sale of spare products to a partnership with customers based on predictive maintenance and proactive management of in-service issues. In 2017, the Civil Aerospace team worked hard to minimise customer disruption from in-service fleet issues with our Trent 1000 and Trent 900 engines and to develop longer-term solutions. Concurrently, the Trent XWB-84 achieved over 1.2 million flying hours with unprecedented levels of reliability. In Defence Aerospace, we opened a further two dedicated service delivery centres (SDCs) to support the RAF and the Indian Air Force, accelerating decision-making on engine issues to maximise availability. Power Systems also opened customer care centres in key time zones, replicating the TotalCare service developed in Civil and Defence Aerospace. Power Systems' first availability contract commenced in 2017 with Hitachi Rail to run for over 20 years, covering support for the UK's intercity programme. Looking forward, a focus on lifecycle costs coupled with the delivery of more digitally enabled engines and systems should support further growth in proactive service management offerings at Power Systems.

Priority 2: Sustain the strong start to our transformation programme

On-target delivery of transformation benefits – since November 2015, we have been pursuing a transformation programme focused on simplifying the organisation, streamlining management, reducing fixed costs and adding greater pace and accountability to decision-making. The benefits are on-target, having achieved run-rate cost savings at the top end of our initial expectations of £200m by the end of 2017.

Priority 3: Rebuild trust and confidence in our long-term growth prospects

Greater financial transparency through further clarity on cash drivers and revenue – as outlined at our half-year 2017 results, our focus is on sustaining stronger cash generation. A stronger finance team, led by Stephen Daintith, is bringing greater financial transparency and clarity both internally and for our investors. In 2018, we plan to introduce new KPIs to align with our refined long-term performance objectives and reflect our focus on free cash flow as a fundamental indicator of performance. See page 17 for more details.

On adopting the new revenue reporting standard IFRS 15, introduced from 1 January 2018, we have selected accounting policies that provide clarity and transparency of our revenue and profit – see page 55. On page 170 we have taken the opportunity to proactively present our 2017 financial results as they would look under the new reporting standard.

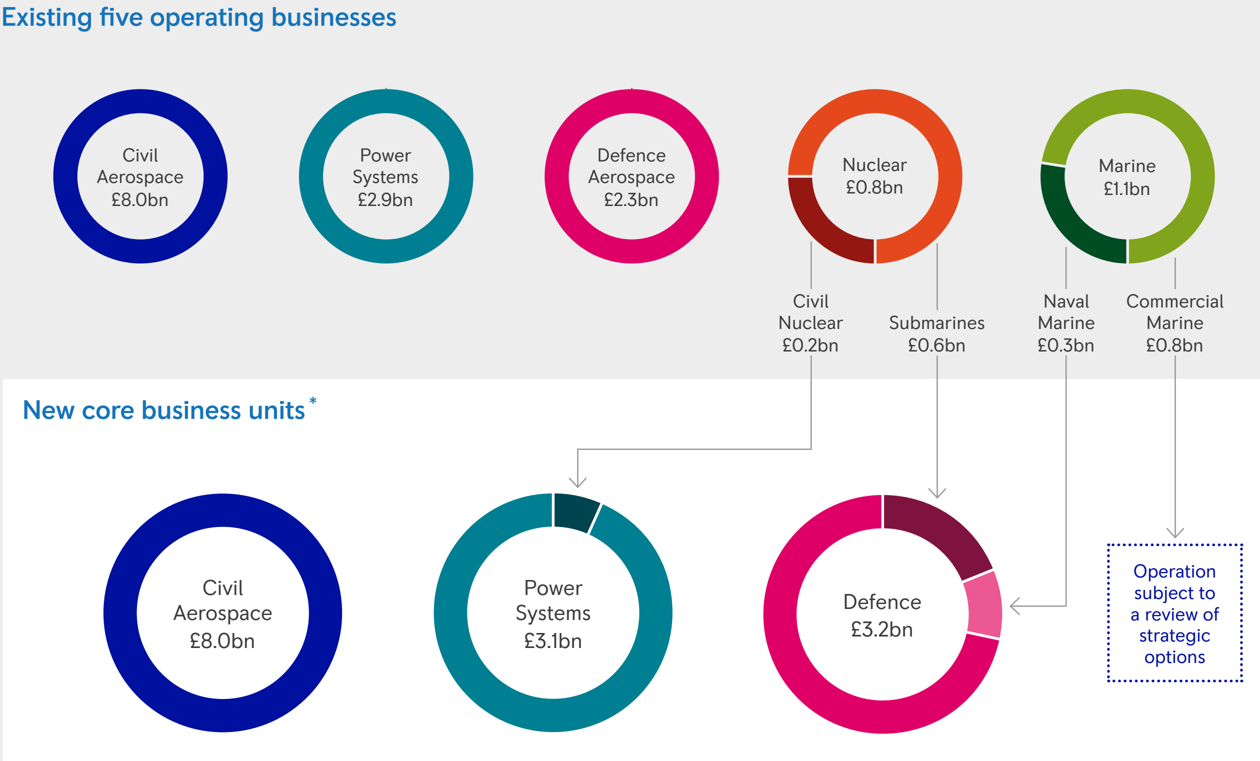
Priority 4: Develop our long-term vision and strategy

Refreshed vision and strategy for Rolls-Royce – we completed our strategic update in the year and in early January 2018 we announced a simplification from five to three businesses and a review of strategic options for our commercial marine operation. This simplification aligns our business more closely with our customers and with our strategic vision to pioneer cutting-edge technologies that deliver the cleanest, safest and most competitive solutions to meet our planet's vital power needs.

Our ambition is to be the world's leading industrial technology company. We will continue to innovate in our core areas while looking to champion electrification to support the move to a low carbon global economy. Our digital tools and technologies will allow us to create new insights and opportunities across our businesses. The simplification of the Group enables us to focus our capital allocation on projects that support our strategy.

Further details on our vision and strategy can be found on page 11.

Simplification of the business (based on 2017 revenue)



* Following the acquisition of ITP Aero in December 2017, it will operate and report as a separate business unit.

2018 priorities and outlook

Our people worked hard in 2017 but more remains to be done. Our goal is to make 2018 a breakthrough year in terms of strategic, operational and financial goals.

The simplification of our operating businesses into three focused units will enable the Group to operate at greater pace. We must also address the cost and complexity of the Group in order to improve the service we offer customers and our financial returns. I am confident that with the right management team now in place, a simplified business structure and steps being taken to improve our processes, we will make further meaningful progress in meeting our strategic, operational and financial goals in 2018. Our largest business, Civil Aerospace, will continue to focus on increasing engine deliveries and working with customers to minimise the impact of in-service engine issues. Across the Group there will be new product introductions and continued R&D investment and capital expenditure to revitalise current products and innovate new technologies. We will also look to report progress on the strategic review of our commercial marine operation. This fundamental restructuring, combined with improving cash flow, will strengthen our balance sheet and we will communicate the KPIs that underpin a more disciplined approach to capital allocation. While Group underlying revenue and profit before financing will be impacted by the adoption of IFRS 15, free cash flow is unaffected by accounting changes and is expected to increase significantly from 2017 levels.

2018 priorities

Customers	Technology	Resilience	Financial progress
mitigate impact to rectify in-service issues, ramp up large engine production, grow service capabilities	focus through product digitalisation, electrification and revitalisation	through adaptability with a spotlight on safety, diversity & inclusion, and the highest ethical standards	delivering improving free cash flow, strengthening balance sheet, more disciplined capital allocation

Longer-term outlook

Our longer-term outlook remains strong and we believe in the transformative potential of our technology. The progressive roll-out of our original equipment into markets with long-term underlying growth will increase our installed base over the next ten years. This, in turn, will drive significant free cash flow as we increase penetration of our service products. The fundamental restructuring announced in January 2018 shows our willingness to take decisive action now in order to secure and enhance the long-term benefit of the cash flows that will be generated over the years to come. We must become a more agile and adaptable organisation.

Our aim is for our people to have a shared vision while being empowered to act responsively. This will support us as we look to develop innovative power expertise, new digital solutions and advances in electrification that will enable Rolls-Royce technology to lead the world into a low carbon future.

ITP AERO BECOMES A ROLLS-ROYCE COMPANY

In late 2017, Rolls-Royce received approval from the Spanish Government for the acquisition of the 53.1% stake in ITP Aero owned by our partner in the business, SENER. Having taken full ownership of the company, ITP Aero is now a separate business unit within Rolls-Royce. ITP Aero will retain organisational autonomy allowing it to continue serving other original equipment manufacturers (OEM) as customers, while meeting our governance and compliance standards.

Based in Bilbao, Spain, ITP Aero is an aero-engine component designer and manufacturer that offers products and services across the widebody, single-aisle, regional, corporate and defence aviation markets. It has worked with Rolls-Royce as a risk and revenue sharing partner on all members of the Trent engine family, manufacturing low pressure turbines, and is an important partner on the UltraFan engine development programme. ITP Aero also provides essential aerospace products and services to a number of important customers outside of Rolls-Royce. ITP Aero is a partner in the main European Defence aviation consortia and is the Spanish Defence aeronautical engine reference company, supporting existing and future programmes as well as providing in-service support to the Spanish fleet.

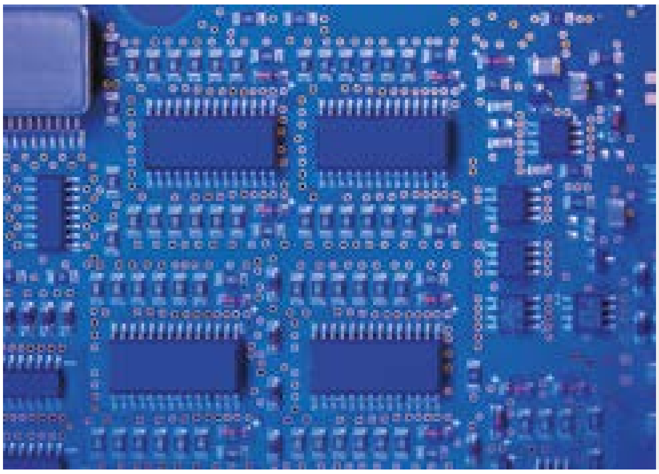
The Trends Shaping our Markets

As pioneers, we must continuously innovate to provide the best solutions in the markets we serve. This requires us to anticipate the opportunities and challenges that our customers will face. In the coming years, we believe that three key trends will define the world's future power needs.

Growing demand for cleaner, safer and more competitive power

Global economic power and rising prosperity will lead to increased demand for travel, trade and energy. The growing understanding of the science of climate change is also shaping demand for power.

To provide superior power for our customers, we will continuously develop and apply cutting-edge technologies.



Electrification

As we move to a low carbon global economy, our engines will become part of broader, hybrid systems with lower emissions and lower environmental impact.

To provide solutions for our customers, we will act as a systems integrator, combining our traditional mechanical technology with electrical technology.

Digitalisation

Advances in sensors, communication, data storage, processing power, machine learning, artificial intelligence, robotics and additive layer manufacturing are all combining to create new insights, processes and opportunities.

To provide lifelong performance for our customers, we will use the huge power of digitalisation to transform our activities.

STRATEGIC REPORT

Our Vision and Strategy

To respond to these key trends, we have refreshed our Group vision and strategy.

Our vision

Pioneering the power that matters

Rolls-Royce pioneers cutting-edge technologies that deliver the cleanest, safest and most competitive solutions to meet our planet's vital power needs.

Our strategy

- Champion electrification
- Vitalise existing capabilities
- Reinvent with digital
- Transform our business
- Build a balanced portfolio

Champion electrification

We will invest in new power solutions for our long-term success.

We are building on our strong heritage in thermo-mechanical engineering to produce state-of-the-art electro-mechanical and hybrid power systems. Today, we already combine our engines in hybrid systems for trains, ships and micro-grids.

Reinvent with digital

We will be Digital First in everything we do to generate new insights, new solutions and new opportunities.

We are renowned as a pioneer in the use of digital solutions for our customer care. We are continuously enhancing the digital twin of our physical activities and seeking new data innovations.

Vitalise existing capabilities

We will develop next generation technologies to sustain and grow our current competitiveness.

We are investing in our existing thermo-mechanical products to ensure that they provide the cleanest, safest and most competitive solutions for our customers. For example, the UltraFan represents a fundamental upgrade of our gas turbines, incorporating 11 breakthrough technologies.

Transform our business

We will fundamentally change the way we do business to generate substantial value for our stakeholders.

We are implementing and improving the Rolls-Royce operating system. Digitalisation allows us to create entirely new ways of engineering, manufacturing and serving our customers across the Group.

Build a balanced portfolio

We will seek new markets and products that bring new technologies and capabilities, and generate scale and synergies.

We are investing to manage the transition towards electrification and digitalisation. We mitigate the risk of long-term investment by increasing our preparedness. For example, by developing activities where electrification is relevant today, such as micro-grids, we will be better placed to benefit in activities where electrification is still some years away, such as aero engines.

We are committed to creating an environment where all our people are able to be at their best.
For more information see page 46

Business Model

Our resources

Brand
Our brand enables us to sustain relationships, secure business and attract talent.

People and culture
Our success is a result of the commitment, skills and ingenuity of our employees and their determination to be 'Trusted to Deliver Excellence'.

Technology
Our technology enables us to meet emerging customer needs.

Engineering capability
Our engineering expertise enables us to embed cutting-edge technologies into outstanding products.

Advanced manufacturing capability
Our manufacturing processes enable us to embed advanced technologies in our products quickly and efficiently.

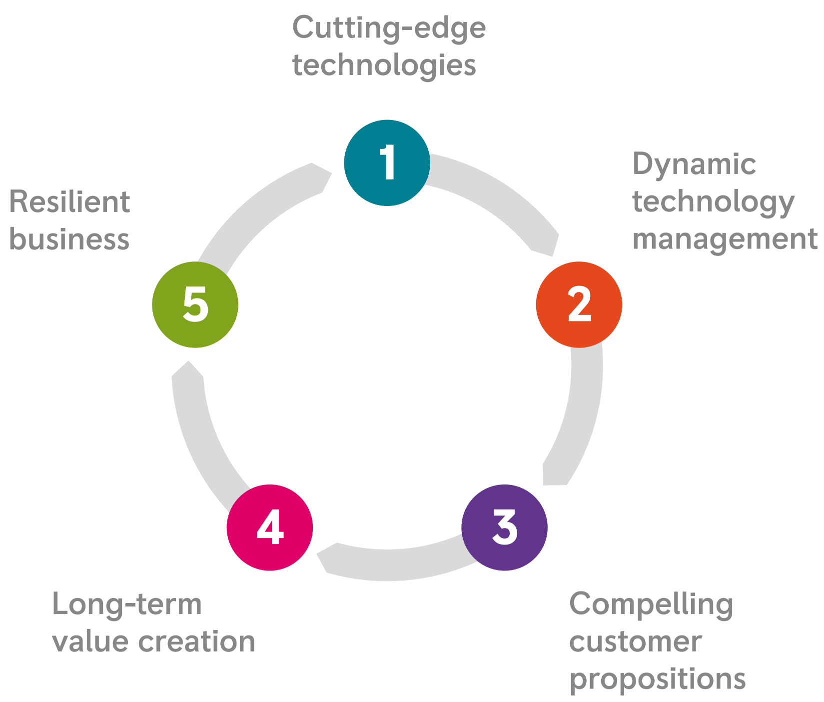
Service capability
Our service orientation enables our customers to focus on their core activities.

Rolls-Royce operating system
Our operating system enables us to drive best practice and value across the Group.

Partners
Our partners enable us to collaborate in technology, manufacturing and services.

Financial strength
Our financial strength enables us to pursue long-term cutting-edge technologies and to support our customers throughout the entire product lifecycle.

Rolls-Royce is one of the world's leading industrial technology companies. We provide power solutions for our customers which combine three elements: advanced technologies; system solutions; and system life. These are delivered as part of a virtuous cycle which begins with the development of cutting-edge technologies. We optimise the value of our power solutions throughout their lives.



Our competitive advantage comes from:

Advanced technologies

We apply cutting-edge technologies to provide cleaner, safer and more competitive power. Our technologies ensure that our customers have power that meets their emerging needs.

System solutions

We package technologies into systems that provide complete solutions for our customers. Our solutions mean that our customers have power from a single, trusted partner.

System life

We care about the performance of our solutions throughout their lives. Our whole-life capabilities maximise availability and enable us to meet changing customer needs.

1 Cutting-edge technologies

Cutting-edge technology allows us to meet emerging customer needs. We instinctively pursue new technologies that will help us deliver cleaner, safer and more competitive solutions.

We identify the key horizon technologies that will generate a competitive advantage for Rolls-Royce in the long term.

Link to risks A B

2 Dynamic technology management

Our future technological world is complex with many exciting new challenges across everything we do. We respond to this with broader and deeper collaboration with others, and with a more dynamic approach to ensure that our technology brings the most value to our customers and our business.

We are inclusive in the pursuit, co-operative in the application and aggressive in the commoditisation of technology.

Link to risks A B

3 Compelling customer propositions

Our customer relationships are our greatest strength. We offer our customers a combination of advanced technology, in a complete systems solution, optimised throughout its life.

We create combinations of technology, systems and aftermarket performance that make our customers more competitive.

See below for details of how we do this.

Link to risks B C D E

4 Long-term value creation

Our activities are complex and global. We share best practice across the Group and assess where and how activities can offer the best value.

We use the Rolls-Royce operating system to generate greater value.

Link to risks E

5 Resilient business

Our activities have a major impact on our planet, the global economy and on communities. To ensure that we are free to operate and invest for the long term, we are thoughtful and careful about the business we undertake, our financial resources and our wider impact.

We build balance in our activities, strength in our balance sheet and behave sustainably.

Link to risks F G H I J

Value creation for our stakeholders in 2017

Customers
We develop product solutions that improve our customers' competitiveness.

Gross R&D expenditure
£1.4bn

Investors
We generate attractive returns for investors over the long term.

Total shareholder return
25.4%

Employees
We create an environment where each employee is able to be at their best.

Invested in training and development
£31.2m

Partners
We create partnerships based on collaboration where each partner benefits from the relationship.

Spent with external suppliers
£8.7bn

Communities
We improve the communities that we impact locally, nationally and globally.

Hours of employee time volunteered
93,900

Governing bodies and regulators
We aim to create trusted relationships with governing bodies and regulators, meeting all legal and regulatory commitments and requirements.

Our power solutions create revenue from:

- **original equipment sales**
- **maintenance, repair and overhaul sales**
- **secondary or repurposing sales**
- **additional products and services**

Our intimate knowledge of our customers and our products enables us to optimise the value of our power solutions throughout their lives. We share this value with our customers by offering power as a service.

Revenue recognition page 125

Link to principal risks

- A Disruptive technologies and business models
- B Competitive position
- C Major product programme delivery
- D Product safety
- E Talent and capability
- F Business continuity
- G IT vulnerability
- H Market and financial shock
- I Political risk
- J Compliance

Principal Risks page 59

Key Performance Indicators

Financial key performance indicators

Description	Why we measure it	How we have performed	
Order book **£78.5bn**	We measure our order book as an indicator of future business volume; however, its value may not be reflective of future revenue. [1]	The 3% decline principally reflects the current period where Civil Aerospace engine deliveries have outpaced new orders as Civil Aerospace customers focused on delivering against their backlog. Power Systems and Nuclear order books improved, reflecting greater activity.	£bn 2017 78.5 2016 80.9 2015 76.4 2014 73.7 2013 71.6
Order intake **£17.2bn**	Order intake is a measure of new business secured during the year and represents new firm orders, adjusted for the movement in the announced order book between the start and end of the period. [2]	Order intake was £1.9bn lower than achieved in 2016 due to Civil Aerospace customers focusing more on delivery of airframes than new sales campaigns. All other business units saw an improvement in their order books, including in Marine from what was a low base.	£bn 2017 17.2 2016 19.1 2015 18.2 2014* 19.0 2014** 19.4 2013 26.9
Underlying revenue **£15,090m**	Monitoring of revenue provides a measure of business growth. [3]	Underlying revenue rose 6% organically,[8] reflecting increased delivery volumes in both Civil Aerospace and Defence Aerospace plus improved end markets at Power Systems. Service revenue was 7% higher led particularly by growth in Civil Aerospace.	£m 2017 15,090 2016 13,783 2015 13,354 2014* 13,864 2014** 14,588 2013 15,505
Self funded R&D as a proportion of underlying revenue **6.9%**	This measure reflects the need to generate current returns as well as to invest for the future. [4]	Disciplined control of spend kept R&D stable as percentage of sales, with self-funded R&D increasing to £1.04bn. This was primarily due to expenditure within Civil Aerospace, focused on new engines coming into service, progress on next generation UltraFan and business jet development programmes.	% 2017 6.9 2016 6.8 2015 6.2 2014* 5.9 2014** 5.8 2013 4.8
Capital expenditure as a proportion of underlying revenue **5.1%**	To deliver on its commitments to customers, the Group invests significant amounts in its infrastructure. [5]	Capital expenditure rose as proportion of revenue, and was £764m in absolute terms, reflecting investment in modernising manufacturing processes and facility expansion within Civil Aerospace, upgrading of Defence Aerospace's Indianapolis site and expansion of our spare engine fleet to support the growing installed base of widebody engines.	% 2017 5.1 2016 4.5 2015 3.7 2014* 4.7 2014** 4.6 2013 4.4
Underlying operating profit **£1,175m**	This measure reflects the Group's underlying economic performance taking account of its hedging strategies. [6]	Organic [8] growth of 22% driven by revenue improvement, our focus on reducing fixed costs, higher capitalised R&D and product mix. This was despite higher costs incurred from in-service issues with Trent 1000 and Trent 900 fleets. Transformation programme benefits reached the top end of the targeted £200m run-rate reduction.	£m 2017 1,175 2016 915 2015 1,492 2014* 1,681 2014** 1,678 2013 1,831
Free cash flow **£273m**	In a business requiring significant investment, we monitor cash flow to ensure that profitability is converted into cash generation, both for future investment and as a return to shareholders. [7]	Cash generation was better than expected, notably in Power Systems, driven by improved profitability and strong working capital management which saw a £546m working capital inflow in the year. These more than offset higher capex and R&D and increased costs to resolve Civil Aerospace in-service engine issues.	£m 2017 273 2016 100 2015 179 2014* 447 2014** 254 2013 781

* Excluding Energy
** Including Energy

Non-financial key performance indicators †

Description	Why we measure it	How we have performed	
Customer delivery **91%**	To deliver on our commitments to our customers we measure the percentage of on-time deliveries to our customers including new equipment, spare parts, equipment repair and overhaul. This is tracked Group-wide in our scheduling and order fulfilment system.	We continued to improve our on-time delivery in a period where we are significantly increasing the output of our Trent engines.	% 2017 91% 2016 88%
Employee engagement **75**	This is measured through our employee opinion survey which produces a composite sustainable engagement score. The targets are based on absolute scores for six key questions within the overall survey.	We maintained our employee engagement score of 75 in 2017, which was the same as in 2016. However we fell short of our target of 77.	2017 75 2016 75

† These non-financial performance indicators are linked to our remuneration structure.

Notes

[1] We measure our order book at our long-term planning exchange rate (LTPR) and list prices and include both firm and announced orders. In Civil Aerospace, it is common for a customer to take options for future orders in addition to firm orders placed. Such options are excluded from the order book. In Defence Aerospace, long-term programmes are often ordered for only one year at a time. In such circumstances, even though there may be no alternative engine choice available to the customer, only the contracted business is included in the order book. We only include the first seven years' revenue from long-term aftermarket contracts.

[2] Any orders which were recorded in previous periods and which are subsequently cancelled, reducing the order book, are included as a reduction to intake. We measure order intake at constant exchange rates and list prices and, consistent with the order book policy of recording the first seven years' revenue from long-term aftermarket contracts, include the addition of the following year of revenue on long-term aftermarket contracts.

[3] Underlying revenue is used as it reflects the impact of our foreign exchange (FX) hedging policy by valuing foreign currency revenue at the actual exchange rates achieved as a result of settling FX contracts in the year. This provides a clearer measure of the year-on-year performance.

[4] We measure R&D as the self-funded expenditure before both amounts capitalised in the year and amortisation of previously capitalised balances. We expect to spend approximately 5% of underlying revenue on R&D although this proportion will fluctuate depending on the stage of development of current programmes. We expect this proportion will reduce modestly over the medium-term.

[5] All proposed investments are subject to rigorous review to ensure that they are consistent with forecast activity and will provide value for money. We measure annual capital expenditure as the cost of property, plant and equipment acquired during the period and, over the medium-term, expect a proportion of around 4%. (Capital expenditure excludes additions arising from TotalCare Flex arrangements).

[6] In particular: (a) revenue and costs denominated in US dollars and euros are presented on the basis of the exchange rates achieved during the year based on our FX hedge book; (b) similar adjustments are made in respect of commodity derivatives; and (c) consequential adjustments are made to reflect the impact of exchange rates on trading assets and liabilities, and long-term contracts, on a consistent basis.

[7] We measure free cash flow as the movement in net debt/funds during the year, before movements arising from payments to shareholders, acquisitions and disposals, and FX.

[8] Organic change is at constant translational currency, excluding M&A.

Financial Review

Stephen Daintith
Chief Financial Officer

Overview 2017

I believe I have joined Rolls-Royce as Chief Financial Officer at a significant point in its history. Over the past five years, we have made substantial investments of almost £8bn in new products and operations, with cumulative tangible capital expenditure of £3.2bn and self-funded R&D investment of £4.4bn. This has allowed Rolls-Royce to develop and bring to market a number of the world's most powerful aero engines. Over a period of 12 months, three new widebody engines achieved first flights. Our active Civil Aerospace in-service engine base stands at 12,966, including 4,409 large engines, an increase of 16% since 2012 and an increase in our large engine installed base of 7% in 2017 alone.

The growth of the installed base highlighted above helped drive a 12% increase in widebody engine flying hours in 2017, delivering 12% growth in Civil Aerospace service revenue. Another solid year in our Defence Aerospace business, together with a strong performance at Power Systems and ongoing cost benefits from our transformation programme, helped us deliver an improved financial performance in the year. Underlying operating profit and free cash flow were both above our expectations.

Overall Group underlying revenue grew organically 6% to £15.1bn. Original equipment (OE) revenue of £7.7bn grew 6%, reflecting increased delivery volumes in Civil Aerospace and Defence Aerospace plus improved end markets for Power Systems. Marine OE revenue fell 15% due to challenging end markets. Nuclear revenue rose by 4%. Service revenue, which accounts for 49% of Group revenue, rose 7% to £7.4bn in 2017, led by growth in Civil Aerospace.

Underlying operating profit grew 22% organically to £1,175m (reported operating profit of £1,287m) in 2017 which was driven by revenue improvement, our focus on fixed costs and higher capitalised R&D. It was delivered despite higher costs incurred from Civil Aerospace's in-service engine issues with the Trent 1000 and Trent 900 which had a negative £227m impact on profit in the year (2016: £98m). Transformation programme benefits have now reached the top end of our targeted £200m run-rate reduction in fixed costs.

Cash generation was better than expected in 2017, notably in Power Systems, with £273m of Group free cash flow (2016: £100m), driven by improved profitability and strong working capital performance which saw a £546m working capital inflow in the year. These were more than offset by higher capex, R&D and the £170m cash costs incurred on Trent 1000 and Trent 900 in-service issues (2016: £90m). Looking ahead, I believe we are now poised to significantly improve our free cash flow as the business starts to reap the benefits of its previous investment cycle and growing installed engine base.

Our primary objective is to generate strong and growing free cash flow. Several key levers are central to delivering this: improving OE economics within Civil Aerospace; continuing to drive growth in Power Systems; delivering ongoing growth in service revenue; and continuing to reduce our costs. We have considerable visibility of the service revenue streams which form a vital part of the resilience and longevity of our business model. We will also drive working capital efficiencies throughout the business, seek to reduce overhead costs further through our recently announced restructuring programme, increase utilisation of our facilities and become more disciplined in our spending and investment decisions.

With more financial flexibility and a more disciplined capital allocation approach, our aim is for Rolls-Royce to regain A-grade investment status, putting us in a position to restore shareholder payments to an appropriate level balanced against a disciplined investment programme to capture carefully selected growth opportunities. We have progressed our portfolio strategy, with the decision to review our commercial marine operation. We will continue to review our portfolio and, where appropriate, pursue tactical disposals of non-core assets to further improve our balance sheet.

I am also determined to provide greater financial transparency, both internally and externally. There has been good progress here in 2017, with further significant steps to be made going forward. In 2018, we aim to introduce some new KPIs to align with our focus on cash flow and improved discipline on capital allocation. We are setting ambitious but achievable targets, reflecting our confidence that the business can deliver significantly improved financial performance over the next few years.

2018 outlook

We are confident 2018 will be a year of good progress. Organic revenue should grow mid-single digit, with underlying operating profit of around £400m excluding ITP Aero (around £450m including ITP Aero). Free cash flow should improve to around £450m excluding ITP Aero, (around £400m including ITP Aero). We are making solid progress with longer-term solutions for Trent 1000 and Trent 900 in-service issues, largely through re-designing affected parts, and we expect these to be fully embodied on the Trent 1000 fleet by 2022. On the Trent 900, an extended life turbine blade is already being rolled-out with further re-designs available from 2020. Based on our current estimates, in 2018 the anticipated annual cash impact is expected to broadly double and reach a peak. It is then expected to fall by around £100m in 2019. The majority of this work will be undertaken in 2018 and 2019 and is not expected to complete until 2022. All of these costs are included in our cash flow guidance for 2018 and beyond.

Financial priorities

To build a business that can generate long-term, sustainable value for stakeholders, I have established five financial priorities, focused on better understanding and improving free cash flow. Action has already started and will continue in 2018 and beyond.

1 Improve cash flow generation

Cash is a fundamental indicator of economic performance. Our primary financial objective is to grow free cash flow.

Key drivers of this will be:

- improved OE economics, principally by reducing the deficit per engine sold, with the Trent XWB engine a key indicator of progress; we aim to move the Trent XWB engine to break-even by 2020;
- growth in service cash inflows through growth in the installed engine base and flying hours;
- a focus on improved working capital management;
- reducing our cost base; and
- improved operational performance in Defence Aerospace and Power Systems.

2017 achievements

- Trent XWB OE deficit per engine down 37% year-on-year
- TotalCare engine flying hours up 12%
- Inventory turns improved 4% to 2.9x

2 Continue cost reduction

Our transformation programme which began in 2015 continued to deliver significant benefits in 2017. For 2018 we have launched a new restructuring plan to further improve efficiency around overhead costs.

Key drivers going forward will be:

- reducing product lifecycle costs through targeted re-engineering;
- removal of duplicated support and management functions as we move from five to three businesses;
- reduction in manufacturing footprint and increasing plant productivity;
- improving efficiency and reducing cost and headcount in commercial and administrative (C&A) functions; and
- disciplined R&D investment.

2017 achievements

- Global production footprint reduced by 3.5%
- C&A costs down 80bps as % of sales
- R&D stable as % of sales at 6.9% despite new programme investment

3 Disciplined capital allocation

A disciplined approach to capital allocation and sustaining a healthy balance sheet will play a major part in driving our long-term growth. Through improved free cash flow generation, we aim to maintain a strong investment grade rating and ultimately return to A-grade status. Restoring our shareholder payments to an appropriate level will be a key element of our capital allocation framework. Growing free cash flow will also help sustain our investment in R&D programmes across existing core areas as well as develop new opportunities, notably in pursuing our electrification strategy.

4 Provide greater financial transparency

There will be a continuing focus to improve the understanding and explanation of the financial drivers of our business, both from an internal and external perspective. The introduction of IFRS 15 (see page 55 for more detail) will help provide greater transparency on the performance and financial dynamics of our business, especially around OE. Looking at and presenting our Civil Aerospace business on a cash flow driver basis should also help increase understanding. Finally, moving more of our internal and external performance metrics to be based around free cash flow will help clarity and focus.

5 Strengthen the finance function

We are taking steps to strengthen the finance function, focusing our resources on improving insight and analysis to help drive results and change across Rolls-Royce. With several new appointments already made, we are bringing on board different experiences to support the continued transformation of Rolls-Royce into the world's leading industrial technology company.

Four key initiatives have been launched as part of a change programme within the Rolls-Royce finance function to deliver on our financial priorities. These include the re-engineering of our finance operating model (our finance systems and reporting), establishing value-based modelling (the use of rolling forecasts) and embedding a strong cash-focused culture to improve working capital management. Finally, a Finance Academy is being established to develop and grow our finance professionals across the organisation.

Group trading summary

Underlying revenue up 6%

Group revenue rose 6% to £15,090m, reflecting 6% growth in OE and 7% in services. Civil Aerospace led the progress, with revenue up 12% reflecting strong growth in OE engine delivery volumes (up 5% in total and up 35% for widebody). Service revenue in Civil Aerospace rose 12%, benefiting from the growing installed base of in-service large engines, which rose 7% to 4,409. Power Systems revenue grew 3% driven by growth in commodity-related markets, construction & agriculture and power generation business. Marine revenue was weak, down 9%, reflecting ongoing weakness in the offshore oil & gas markets. Nuclear revenue rose 4%.

Gross profit up 1%

Gross profit rose 1% to £2,973m, with gross margins of 19.7%, down 100bps in the year. This decline was driven by both Civil and Defence Aerospace. Civil Aerospace margins reflected the impact of higher volumes of unlinked OE engines, which carry an OE deficit, allied to lower long-term service agreement (LTSA) margins and other related costs driven by additional maintenance costs on Trent 1000 and Trent 900 engines. Defence Aerospace gross margins were impacted by lower spares volumes and lower LTSA contract margin improvements. Power Systems saw a strong gross margin improvement of 240bps, principally reflecting improved product mix and pricing discipline.

R&D costs down 18%

Gross R&D expenditure grew 1% to £1,392m. After funding from customers and other third parties, self-funded R&D rose 7% to £1,035m. This was primarily driven by increased investment in Civil Aerospace with the development of a number of new engines plus ongoing investment in existing product improvement, including fuel burn efficiency enhancements. Capitalisation of R&D rose from £99m to £342m due to the stage of development programmes and included £83m from a policy application change. Contributions from risk & revenue sharing partners declined £24m. Overall the underlying expensed R&D charge fell 18% to £737m.

C&A costs down 3%

C&A costs were £1,168m, 3% down on the prior year, reflecting the beneficial effects of transformation actions to reduce overhead costs. Looking ahead to 2018 and beyond, we expect to realise additional benefits from further restructuring of our support and management functions.

Group trading summary

£m	2017	2016	Change	Organic change
Order book *	**78,476**	**80,910**	**-3%**	**-3%**
Underlying revenue	**15,090**	**13,783**	**+9%**	**+6%**
Underlying OE revenue	7,687	7,027	+9%	+6%
Underlying services revenue	7,403	6,756	+10%	+7%
Underlying gross profit	**2,973**	**2,818**	**+6%**	**+1%**
Gross margin %	*19.7%*	*20.4%*	*-70bps*	*-100bps*
Commercial and administrative costs	(1,168)	(1,158)	+1%	-3%
Research and development costs	(737)	(862)	-15%	-18%
Joint ventures and associates	107	117	-9%	-13%
Underlying operating profit	**1,175**	**915**	**+28%**	**+22%**
Underlying operating margin	***7.8%***	***6.6%***	***+120bps***	***+100bps***
Financing costs	(104)	(102)	+2%	
Underlying profit before tax	**1,071**	**813**	**+32%**	
Tax	(328)	(261)	+26%	
Underlying profit for the year	**743**	**552**	**+35%**	
Underlying earnings per share (pence)	**40.46**	**30.13**	**+34%**	
Free cash flow	**273**	**100**	**n/a**	

* The 2016 opening order book has been restated by £1.5bn reflecting a methodology change in the exchange rates used to translate order books – moving from long-term planning rates to period spot rates – for overseas subsidiaries, and a restatement of Defence Aerospace's order book opening balance by £(441)m.

Exceptional restructuring charges

£104m of exceptional restructuring charges were taken in 2017 (2016: £129m) primarily due to restructuring in Power Systems and Defence Aerospace, reflecting actions to remove cost and improve operational efficiency.

Underlying operating profit up £260m

Underlying operating profit of £1,175m (2016: £915m) was up 22% reflecting a number of factors:

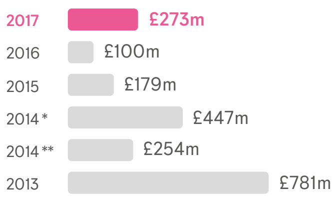
- Civil Aerospace profit increased to £520m, up 34% with positive margin contribution from higher linked Trent 700 OE sales, increased service revenue and higher sales of spare parts. This was offset by higher costs relating to the Trent 1000 and Trent 900 in-service engine issues, with £227m of costs charged for these. Expensed R&D fell £156m to £412m reflecting increased capitalisation.
- Defence Aerospace profit of £374m was down 7% due to lower demand for engine spares, higher restructuring costs and a £14m reduction in LTSA contract margin improvements taken in 2016. These more than offset the non-repeat of the TP400 charge of £31m in 2016.
- Power Systems made excellent progress in 2017, with profit of £330m up 61%, reflecting 3% revenue growth, a 240bps expansion in gross margin, due to better mix and pricing discipline, and benefits of overhead cost reduction actions which saw C&A costs fall 7%.
- Despite the 9% decline in Marine revenue, restructuring drove a material reduction in overhead costs with C&A costs 13% lower, helping to reduce underlying operating losses to £25m (a £2m improvement versus 2016).
- Nuclear operating profit of £38m was 18% lower versus 2016, primarily reflecting a higher R&D charge of £23m compared with the £6m incurred in 2016 which had benefited from a one-off positive of £7m due to the change in treatment of R&D credits.

Payment to shareholders held flat

For 2017, the final payment to shareholders is held at 7.1 pence giving a full year payment of 11.7 pence (2016 full year: 11.7 pence), a cash cost of £216m. Restoring our shareholder payments to an appropriate level over time as free cash flow grows will be a key capital allocation priority.

Free cash flow

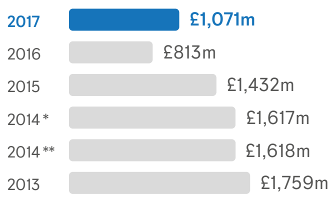
£273m



* Excluding Energy
** Including Energy

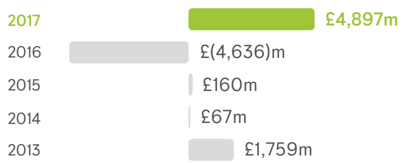
Underlying profit before tax

£1,071m



Reported profit/(loss) before tax

£4,897m



Reported results

Reported profit before tax was £4.9bn, a material increase over the 2016 loss of £4.6bn. This included £798m of gains resulting from the acquisition of ITP Aero, a positive FX mark-to-market adjustment of our hedge book of £2.6bn (£4.4bn negative in 2016), a charge of £671m for financial penalties from agreements with investigating bodies in 2016, a charge (principally relating to the Vickers Group Pension Scheme) of £306m for the restructuring of the UK pension schemes in 2016 and goodwill/other impairments of £24m versus £219m in 2016. This also includes improvements in other operational performances as highlighted above.

Free cash flow improving

Free cash inflow in the year was better than expected at £273m (2016: £100m), excluding the £14m post-acquisition cash outflow of ITP Aero. The strong cash flow performance was driven by higher profitability in Civil Aerospace, Defence Aerospace and Power Systems and good working capital performance, again principally in receivables, across the Group. This was achieved despite £98m of higher R&D cash spend in 2017, a £188m increase in capital expenditure and the reversal of the £180m working capital management benefit generated in the first half. Trading cash flow in Civil Aerospace of £38m was unchanged year-on-year. This reflected increased flying hour receipts and higher spare parts sales, offset by an increased outflow from higher deliveries of OE widebody engines and the higher Trent 1000 accelerated maintenance activity. Total cash costs incurred in the year on Trent 1000 and Trent 900 in-service issues were £170m (2016: £90m).

Looking ahead, improved Civil Aerospace engine OE economics and increased engine flying hours will drive a further improvement in free cash flow in 2018 and beyond. More details on the movement in trading and free cash flow are included in the funds flow section of the Additional Financial Review – see page 51.

IFRS 15

As highlighted in 2016, the introduction of the new revenue reporting standard, IFRS 15 *Revenue from Contracts with Customers*, will change fundamentally how Rolls-Royce measures its revenue and profit, Civil Aerospace having by far the largest impact. There are three broad implications:

- linked accounting will cease to exist so all OE sales will be treated on the same basis;
- OE engine cash deficits will no longer be capitalised and recorded as contractual aftermarket rights, they will instead be recognised on delivery; and
- revenue and profit for aftermarket services will be recognised on an activity basis as costs are incurred.

Further information on the 2017 results under IFRS 15 can be found on page 55.

Net debt

In 2017, the Group's net debt position rose from £225m to £520m (excluding ITP Aero) largely reflecting the £273m free cash generation offset by shareholder payments of £214m and £286m covering payments due in 2017 for the financial penalties from agreements with investigating bodies. A further £378m of regulatory fines remain due to the SFO, with a payment schedule extending to 2021.

Following the acquisition of ITP Aero, its operating cash outflow of £14m and the consolidation of the net funds of £215m result in Group net debt rising somewhat less to £305m.

Credit rating

The Group is committed to maintaining a robust balance sheet with an investment-grade credit rating. We believe that this is important for our customers given that we deliver high-performance products and support for equipment which will be in operation for decades. Standard & Poor's updated its rating in January 2017 to BBB+ from A-/negative outlook, while Moody's lowered its rating in February 2017 from A3/stable to A3/negative.

Foreign exchange

The Group hedges transactional foreign exchange exposures to reduce volatility of revenue and costs. The most significant exposure is net US dollar income which is converted into GBP (currently approximately $5bn per year and forecast to increase significantly by 2021). The Group has a hedge book of $38.5bn (at an average rate of USD:GBP 1.55) covering this exposure. We expect the achieved £/$ hedge rate to remain unchanged at around USD:GBP 1.54 for the coming three years.

Interest

Interest and other financing costs remained broadly flat year-on-year, up £2m to £104m. Net interest payable reduced by £10m to £53m. Other underlying financing costs increased by £12m to £51m.

Taxation

Underlying taxation was £328m (2016: £261m), an underlying rate of 30.6% compared with 32.1% in 2016. The underlying tax rate remains high due to the continued non-recognition of deferred tax assets on losses in Norway and the mix of profits arising in higher tax rate countries, predominantly the US and Germany.

POWERING GLOBAL AVIATION

At the same time as delivering a significant increase in Civil Aerospace engine production, Rolls-Royce marked the entry into service of the Trent 1000 TEN on the Boeing 787 Dreamliner in November 2017. That milestone followed the first test flight of the Airbus A330neo, powered by the new Trent 7000, in October and the first test flight of the Airbus A350-1000, powered by the new Trent XWB-97 in late 2016. That means Rolls-Royce successfully flew three new civil widebody engines in a period of just 12 months – an unprecedented achievement in the aerospace industry. Each programme has brought together more than 20,000 parts to create engines that have undergone rigorous testing at facilities around the world.

Civil Aerospace

Civil Aerospace is a major manufacturer of aero engines for the large commercial aircraft, regional jet and business aviation markets. The business uses its engineering expertise, in-depth knowledge and capabilities to provide through-life support solutions for its customers.

Key facts

35
types of commercial aircraft powered by Rolls-Royce engines

13,000
engines in service around the world

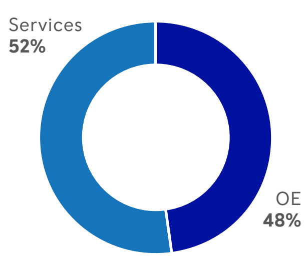
24,600
average number of employees during 2017

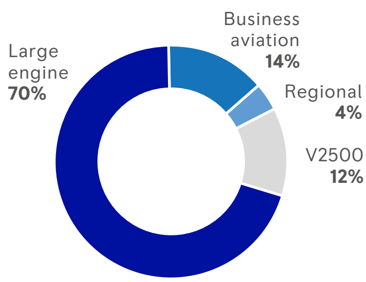
Civil Aerospace | Key financial data *

	2017	Year-on-year change	Organic change†
Underlying revenue	£8,023m	+14%	+12%
Underlying gross profit	£1,192m	+1%	-2%
Underlying operating profit	£520m	+42%	+34%
Trading cash flow	£38m	-12%	-12%
Order book	£70.2bn	-3%	-3%

* See note 2 on page 132 for further segmental detail.
† Organic change is at constant translational currency, excluding M&A.

Underlying revenue mix





Key highlights

- Underlying revenue and underlying operating profit growth of 12% and 34% respectively, driven by 35% increase in large engine delivery volumes and a 12% increase in invoiced flying hours
- Underlying service revenue grew by 12%
- Unit cost reductions and pricing improvements; 37% reduction in Trent XWB-84 cash deficit; and overall OE cash deficit stable at £1.6m, as expected given the change in production mix
- Good progress on new engine programmes during 2017: Trent 1000 TEN entering into service, Trent XWB-97 achieving certification, and Trent 7000 powering Airbus A330neo first flight
- Significant in-service engine issues on Trent 1000 and Trent 900; principally due to lower than expected durability of certain turbine and compressor rotor blade parts (see page 24); and focus to mitigate disruption to customers, current year £227m income statement charge and £170m impact to cash flow
- Change in R&D policy application: £83m of the £243m increase in R&D capitalisation in year

Overview 2017

2017 marked some notable successes for Civil Aerospace, with record levels of widebody engine deliveries, expanding the installed fleet and generating positive service revenue growth. The Trent XWB-97 and the Trent 7000 achieved full flight certification during the year and the Trent 1000 TEN entered into service. The Trent XWB-84 saw much improved OE economics and has achieved over 1.2 million flying hours in service with unprecedented levels of reliability. These milestones have been achieved against a backdrop of capacity constraints, primarily for blade manufacture and test beds, which have been exacerbated by a number of in-service engine issues relating to the serviceable life of a small number of parts on the Trent 1000, which have led to significant customer disruption, and on the Trent 900. Investments have been made in facilities and people to minimise the disruption caused to our customers and to develop longer-term solutions.

Financial overview

Total underlying revenue

Total underlying revenue rose 12% to £8,023m, with both OE revenue of £3,818m (2016: £3,357m) and service revenue of £4,205m (2016: £3,710m) up 12%. The rise in OE revenue reflected record levels of widebody engine deliveries, with growth in Trent XWB-84 engine sales, to support the Airbus A350 programme ramp-up, a significant contributor.

Higher service revenue was driven by both increased engine flying hours and higher time and material activity. Overall large engine flying hours increased by 12% to 12.6 million. This reflects a 22% increase in flying hours from the in-production Trent engine fleet partially offset by a decrease of 12% from the legacy fleet of engines, the Trent 500 and Trent 800 and RB211s, which are no longer in production.

For business aviation, while OE sales were 26% lower, reflecting a 32% reduction in engine sales as airframe production transitioned to competitor-powered programmes, there was a 10% increase in service revenue from continued fleet growth and consistently high CorporateCare coverage. Overall, V2500 revenue increased 6% driven by higher maintenance, repair and overhaul activity. Service revenue from V2500 increased 13% led by higher maintenance activity. V2500 OE module sales continued to reduce but revenue from flying hours remained stable.

Underlying operating profit

Underlying operating profit increased to £520m, up 34% (2016: £367m). Increased gross margin contributions were generated by higher deliveries of link-accounted Trent 700 engines, increased flying hours in growing widebody and business aviation fleets and increased sales of spare parts. This was partially offset by the decline in business jet engine OE sales.

Given the performance of our in-service fleets continued to evolve, as we do every year, we have updated our forward estimates of revenue and costs across our long-term contracts. While this included some favourable effects, such as increased utilisation and reduced servicing costs across our business aviation fleet, it also required the inclusion of higher costs for additional maintenance activity for the Trent 1000 and Trent 900 fleets and increased customer support to alleviate the impact of limited engine availability. In total, the contract accounting adjustments created an £18m headwind (2016: £90m benefit) which included a £148m charge (2016: £98m charge) for technical cost (including certain costs relating to the Trent 1000 and Trent 900 in-service issues), a £113m (2016: £217m) benefit from lifecycle cost improvements and a £77m benefit from a customer credit rating change, offset by other charges of £60m (2016: £64m charge)

ON TIME, EVERY TIME

In June, Rolls-Royce opened its Airline Aircraft Availability Centre (the Centre), in Derby, UK, combining the latest in digital data management and technology innovation. Using industry-leading data analytics, the Centre plans engine operations and maintenance, driving efficiency in an industry where one per cent fuel savings can be worth $250,000 per aircraft per year. With a Rolls-Royce powered aircraft taking off or landing every 16 seconds, the business can use data from thousands of aircraft across the world to ensure they are available for service 24/7. The Centre will also be a hub for the introduction of new technologies including real-time collaboration systems which allow engineers working around the world to share live pictures from inside an engine with the team at the Centre and receive advice on what action to take. In addition, 'remote surgery' techniques will enable experts at the Centre to carry out complex engineering tasks by remote control.

THE TRENT XWB – ONE IN A MILLION

In late 2017, the Trent XWB-84 passed an important milestone: one million flying hours. The engine, which powers the Airbus A350 XWB and is the most efficient large aero engine flying in the world today, achieved the milestone while delivering the best ever widebody entry into service performance, with despatch reliability reaching 99.94% in October and zero in-flight disruption. The engine continues to set new standards of performance and popularity in our industry. Not only is it the most efficient large aero engine flying in the world today, it is also the fastest-selling widebody engine ever, with more than 1,600 already sold or on order.

The engine, assembled in Derby, UK, and Dahlewitz, Germany, has a front fan that is just under ten feet across, which draws in up to 1.3 tonnes of air every second at take-off. The high-pressure turbine blades inside the engine rotate at 12,500rpm, with their tips reaching 1,200rpm – twice the speed of sound. At take off, each of the engine's 68 high-pressure turbine blades generates around 900 horsepower per blade – similar to a Formula One racing car – and at full power, air leaves the nozzle at the back of the engine travelling at almost 1,000mph.

largely relating to operational changes. Profit was also impacted by the non-repeat of the £53m release in 2016, following accounting and legal review, of an accrual relating to the termination in prior years of intermediary services. Gross margin from spare engine sales to joint ventures contributed £67m (2016: £97m).

Investment in self-funded R&D rose by £50m largely reflecting increased investment in the development of a number of new engine types which we successfully progressed, plus ongoing investment in product improvements to our existing portfolio. In 2017, this focused on further enhancing in-service durability, with a notable focus on the longer-term solutions to the Trent 900 in-service engine issues, and fuel burn efficiency as we look to deliver on our customer commitments. This was more than offset by an increase in R&D capitalisation which rose to £328m (2016: £85m), largely reflecting the stage of capitalisation of a number of development programmes. It also reflects a change we have made to better align with European peers and best practice, to the point at which we start capitalising development costs to reflect current engine programmes reaching technical maturity earlier in the development cycle than has been the case historically. This resulted in additional development costs of £83m being capitalised. Contributions from risk and revenue partners decreased to £39m (2016: £63m). Overall the expensed R&D charge fell to £412m in 2017 from £568m in 2016. Higher restructuring provisions contributed to the 5% increase in C&A costs.

Trading cash flow

Trading cash flow in Civil Aerospace of £38m was unchanged year-on-year. This reflected increased flying hour receipts from the growing widebody fleet and higher spare parts sales, offset by an increased outflow from higher deliveries of OE widebody engines and the higher Trent 1000 accelerated maintenance activity. The average cash deficit on widebody engines remained flat at £1.6m per engine, reflecting greater volumes of discounted Trent 700 and some temporary pricing headwind on Trent 900, offsetting strong improvement on Trent XWB-84, where the cash deficit per engine reduced by 37%, underpinning our confidence of further cost reduction and economic improvement. Total cash costs incurred in the year for in-service engine issues on the Trent 1000 were £119m (2016: £45m) and £51m (2016: £45m) on the Trent 900.

The increase in self-funded R&D investment mentioned above, together with higher capital expenditure for additional production capacity and for engines to support the growing fleet, were offset by good working capital performance on cash collections from a number of key customers at the end of the year. This benefit helped offset the growth in inventory to support the continuing widebody engine ramp-up in 2018.

Additional financial information and IFRS 15 adoption impact

Further details on revenue, profit and balance sheet for Civil Aerospace results can be found on pages 53 and 54.

A comparison of the 2017 financial results under IFRS 15 to those under the current basis, together with a commentary on the key differences between the two approaches can be found on pages 56 and 57.

Order book

Order intake in 2017 was £10.5bn (2016: £14.1bn including a £2.1bn uplift from a change in the long-term USD planning rate) with orders placed for 185 widebody engines. The closing order book was £70.2bn (2016: £72.0bn) and includes orders for over 2,500 widebody engines. Orders placed during the year included 119 engines for Airbus platforms including the A350 XWB and A330neo as well as 66 engines for Boeing 787 Dreamliners.

Operational and strategic review

The business has made significant progress in the year, despite capacity constraints on parts and test beds, achieving a record level of large engine production and deliveries while also focusing on minimising the impact on customers from in-service issues on the Trent 1000 and Trent 900 fleets.

Engineering and R&D

Significant milestones have been achieved in each of the three new large engine programmes on their progression towards entry into service. Two new engines achieved certification: the Trent 1000 TEN and the Trent XWB-97. The Trent 1000 TEN entered service on the Boeing 787-9 in

November and the Trent XWB-97 powering the Airbus A350-1000 entered into service in early 2018. In October, Trent 7000 engines powered the first test flight of the Airbus A330neo and the programme remains on schedule for entry into service in mid-2018.

The business continues to invest in developing future technologies which will be key to winning positions on next generation platforms for both large engines and for future business jet programmes. Good progress has been made on new engine architecture demonstrator programmes in 2017. The Advance3 demonstrator successfully completed initial ground test runs and the UltraFan power gearbox successfully completed a high power test run to a record 70,000hp.

In November, the business announced that it will be developing the E-Fan X hybrid electric demonstrator in collaboration with Airbus and Siemens. This development reflects the growing importance of electrification to the long-term future of the industry.

Operational progress

Civil Aerospace has invested in both its facilities and in building the skilled workforce necessary to support the continuing ramp-up in widebody engine production. These actions enabled the business to deliver a record 483 widebody engines in 2017 (2016: 357), up 35%, despite challenges caused by in-service issues.

In June, a £150m investment in facilities was announced with the majority going to new testing facilities for large engines in Derby. We also opened a new Trent XWB assembly line in Dahlewitz to complement the existing one in Derby. Together these two facilities will enable us to deliver seven Trent XWB engines a week by mid-2018.

The new fleet support facility in Tyne and Wear, UK, became operational, allowing the early closure of an older facility to take place in 2018. In addition, legacy supply chain facilities in Ansty and Sunderland, UK, were exited during 2017.

In-service fleet performance

Our large engine fleet has continued to grow, with over 4,400 engines in active service at the end of 2017, up 7% on 2016. Invoiced flying hours from in-production Trent engines rose 22% and total invoiced flying hours from service agreements across all our widebody, business aviation and regional jet engines were 16.7 million, an 8% increase on 2016. The Trent 700, which constitutes 36% of our installed widebody engine fleet, continued to perform well in service, achieving a dispatch reliability of 99.9%.

We celebrated a number of milestones in the year, including the Trent XWB-84 achieving over 1.2 million flying hours with unprecedented levels of reliability (99.9% dispatch reliability).

We have, however, experienced an increased level of activity managing in-service issues on two engine programmes in 2017, the Trent 1000 and Trent 900, caused by the lower than expected durability of a small number of parts. In the first half of the year, we took £59m of charges related to technical issues with the in-service fleet, the largest component of which related to the Trent 1000. Since then we have continued to progress our understanding of the technical issues impacting compressor rotor blades, intermediate and high-pressure turbine blades for the Trent 1000 and also high-pressure turbine blades for the Trent 900, together with the consequential operational impact on our customers. This has been a dynamic situation and we are managing these issues through a proactive engine maintenance programme. This has required increased short-term support including both on-wing and shop visit intervention, which has resulted in disruption for some of our customers.

We have grown our Trent 1000 maintenance, repair and overhaul capacity since an issue with the intermediate pressure turbine blade was first identified, including doubling the number of lines available in the UK, developing a dedicated shop in our SAESL facility in Singapore and using lean methods to reduce turn-around times. We continue to make solid progress with longer-term solutions, largely through the re-design of affected parts, and we expect these to be fully embodied in the Trent 1000 fleet by 2022. Reducing disruption to our customers remains our top priority. The Trent 1000 TEN engine, the latest variant of the Trent 1000, includes a variety of improvements that help deliver greater capability, durability and efficiency. It is, however, possible that a population of early Trent 1000 TEN engines may benefit from proactive maintenance to embody re-designed parts that weren't available at the point of production. On the Trent 900, an extended life turbine blade is being rolled out into the current fleet. Further re-designs are underway and will be available in 2020.

Total charges of £227m (2016: £98m) were recognised in the income statement in relation to accelerated maintenance activity for the Trent 1000 and Trent 900 in 2017 and £170m (2016: £90m) in our cash flow. Based on our current estimates, in 2018 the anticipated annual cash impact in respect of both the Trent 1000 and the Trent 900 is expected to broadly double from the total cash cost in 2017 of £170m and reach a peak in 2018, as maintenance activity intensifies. It is then expected to fall by around £100m in 2019. The majority of the work will be undertaken in 2018 and 2019 although it is expected to be fully complete by 2022. All of these costs are included in our cash flow guidance for 2018 and beyond.

Developing the service offerings

As the engine base matures and flying hours continue to grow, the business has broadened its range of long-term service packages to meet the needs of an increasingly diverse customer base.

In June, the Airline Aircraft Availability Centre was opened in Derby. The Centre uses industry-leading data analytics to proactively plan engine operations and maintenance, and complements the existing global network of customer service centres working to provide in-depth expertise in their local markets.

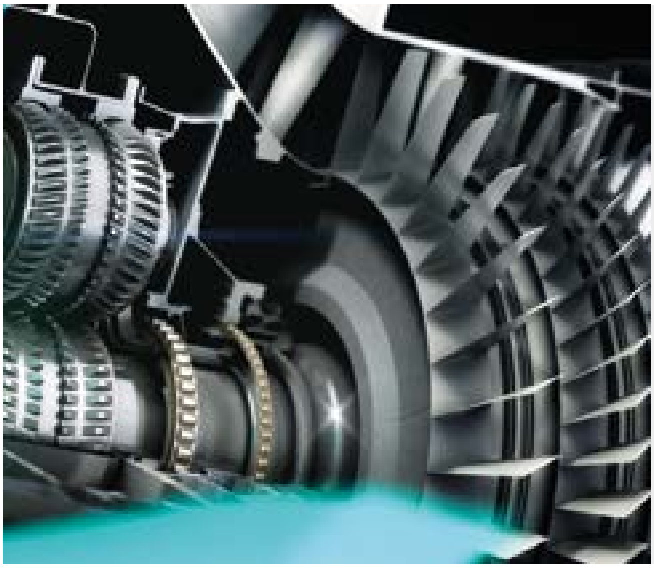
The service network has continued to evolve with Air France/KLM joining the CareNetwork for Trent XWB engines. The global network of Authorised Service Centres for business aviation aircraft now totals 74.

We have sought to develop both physical and digital infrastructure for aftermarket services through a number of initiatives. We introduced the CareStore as a customer gateway to the full range of digitally-enabled services, supporting more informed decisions. Online apps were launched for both commercial and business aviation customers to provide better insight into their engines to help optimise performance and provide real-time service information.

We continued to develop our services for our lessor customers and in January 2018 we launched LessorCare, a pioneering new service tailored to their needs, and successfully signed three customers up in the first wave. Total service revenue of £4.2bn in 2017 now represents 52% of Civil Aerospace revenue and 28% of Group revenue. Over the next few years we expect continued aftermarket revenue growth as we build towards a 50% plus share of the installed widebody passenger market and service revenue from Civil Aerospace become a greater proportion of our Civil Aerospace and Group revenue.

Civil Aerospace outlook

Outlook for the new business structure under IFRS 15 is discussed in the 2018 Outlook on page 58.



CENTRE OF EXCELLENCE FOR POWER GEARBOX TECHNOLOGY

In November, Rolls-Royce officially opened its state-of-the-art power gearbox (PGB) test facility in Dahlewitz, Germany. The facility is part of the new centre of excellence for power gearbox technology, one of the key enabling technologies for the UltraFan engine. Development and testing is already well underway. The facility has already set a new world record for the running of the world's most powerful aerospace gearbox – with the PGB successfully reaching 70,000hp. But it won't stop there: our PGB is designed to run at up to 100,000hp. When running at maximum power, each pair of teeth on the gearbox transmit more power than the whole starting grid of a Formula 1 race.

Operating environment

Rolls-Royce key differentiators

Our continued development of advanced world-leading technology, culture of partnership with customers and innovation in services are attributes that Civil Aerospace customers really value and are difficult to imitate. These differentiators will maintain the business' position at the forefront of the civil aerospace industry.

Market dynamics

- The slow-down in new aircraft orders highlighted in 2016 has continued through 2017 across all regions. These market conditions were to be expected after the high levels of order placement over the past few years, as airlines absorb the increased capacity. It does not imply a slow-down in the growth of air travel, which remains robust.
- Demand growth for air travel in all regions has remained resilient to recent geopolitical uncertainties, and historically growth has recovered quickly following major economic shocks. A broad consensus forecasts that air traffic (revenue passenger kilometres) will grow by approximately 5% compound annual growth rate over the next 20 years.
- The business jet market is recovering slowly in the US (the largest market) and there are tentative signs of growing demand elsewhere.

Opportunities

- The business has a strong and growing market position on widebody aircraft produced by the world's two major aircraft manufacturers: Airbus and Boeing. The current share of the widebody engine market is at 35% of the installed passenger fleet and is expected to exceed 50% early in the next decade.
- The increasing size of the installed base delivers significant service growth opportunities. 90% of the current Rolls-Royce widebody fleet is covered by TotalCare service agreements.
- The business continues to invest in technologies to enhance the existing and near-future product portfolio. In parallel, a number of engine demonstrators with embedded electrical generators have been successfully run; and work on innovative hybrid aircraft demonstrator projects is ongoing.
- Boeing sees an opportunity for a new aircraft sized between the 737 and 787 families, dubbed the 'New Mid-market Airplane'. Rolls-Royce is engaged in discussions with Boeing to explore this potential prospect.
- China's COMAC and Russia's UAC announced a joint venture in May; the China Russia Commercial Aircraft International Corporation (CRAIC). CRAIC recently unveiled plans to develop the CR929, a long-haul widebody aircraft. Rolls-Royce is actively exploring this opportunity.

Business risks

- If a major product failure in service is experienced, then this could result in loss of life and significant financial and reputational damage.
- If the technical performance of a product falls significantly below customer expectation (e.g. Trent 1000 and Trent 900 time on-wing is less than planned) or fails to deliver the planned business benefits, then this would cause significant financial and reputational damage.
- If an external event or severe economic downturn significantly reduces air travel and thereby reduces engine flying hours and demand for aircraft, then financial performance may be impacted.
- If aircraft manufacturer customers significantly delay their production rates or if the business suffers a major disruption in its supply chain then delivery schedules would be delayed, damaging financial performance and reputation.
- If the business experiences significant pricing pressure from increased competitor challenge in key markets, then financial performance may be impacted.
- If there are significant changes to the regulatory environment for the airline industry, then the market position of the Civil Aerospace business may be impacted.

SERVICE DELIVERY CENTRES BRING ROLLS-ROYCE CLOSER TO DEFENCE CUSTOMERS

The new Defence service delivery centre (SDC) located at RAF Lossiemouth in Scotland, opened in 2017, supports EJ200 engines powering the resident fleet of Typhoon combat aircraft. Established in partnership with the MoD's Defence Infrastructure Organisation, it houses a team of specialist Rolls-Royce engineers, together with their RAF and Serco counterparts, working to deliver tailored support services. SDCs form part of a suite of innovative support solutions that Rolls-Royce is implementing across a global network of over 150 military customers. During 2017 a further site opened in Bangalore, India, supporting over 750 engines in service with the Indian Armed Forces.

Defence Aerospace

Defence Aerospace is a market leader in defence aero engines for military transport and patrol aircraft and has strong positions in other sectors, including combat, training aircraft and helicopters.

Key facts

16,000
engines in service around the world

Over 150
customers in over 100 countries

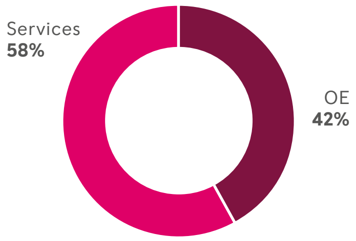
6,100
average number of employees during 2017

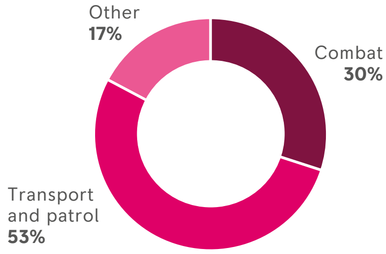
Defence | Key financial data *

	2017	Year-on-year change	Organic change†
Underlying revenue	£2,275m	+3%	-1%
Underlying gross profit	£575m	+2%	-2%
Underlying operating profit	£374m	-3%	-7%
Underlying operating margin	16.4%	-100bps	-100bps
Order book	£3.4bn	-18%	-14%

* See note 2 on page 132 for further segmental detail.
† Organic change is at constant translational currency, excluding M&A.

Underlying revenue mix





Key highlights

- Underlying revenue broadly flat with modest decline in both spare parts and LTSA revenue, the latter due to the retirement of the UK Ministry of Defence Gnome-powered Sea King fleet in 2016
- Underlying operating profit down 7% through product mix and higher R&D spend reflecting ongoing future programme development
- Order intake of over $1.4bn secured in the US, including further funding for long-term service contracts with US Department of Defense
- Expansion of service offerings through the opening of new service delivery centres in Lossiemouth and Bangalore and extended supply agreement signed with Aviall, a Boeing company
- Joint venture signed with Turkish industrial conglomerate Kale Group to develop an indigenous engine solution for the TF-X combat programme

Overview 2017

The Defence Aerospace business had another solid year. Original equipment (OE) production focused on executing under long-term contracts in transport & patrol as well as delivering technology to improve fuel efficiency for legacy fleets. In combat, as well as increasing production for the LiftSystem, the joint venture announced with Kale in Turkey positioned us well to offer an indigenous engine solution for the TF-X fighter jet.

A number of core US service contracts were renewed, covering over 3,000 engines, and an agreement with Aviall, a Boeing company, significantly improved the spares distribution channel for AE defence engines. There were also additions in the UK and India to further enhance our SDC network. The facility modernisation programme in Indianapolis, US, met all of its 2017 milestones with targeted cost reductions also on track. Finally, we continued to make progress on the development of next generation technologies across our portfolio to ensure we can continue to offer our customers increased performance and capability for their operations.

Financial overview

Underlying revenue

Underlying revenue of £2,275m was broadly flat on the prior year on a constant currency basis. OE revenues increased 4% through higher transport and patrol volumes, partially offset by lower combat sales following the completion of Middle Eastern delivery contracts in early 2017. Service revenue was down 4%, reflecting slightly lower LTSA revenue related to the 2016 retirement of the UK MoD Gnome-powered Sea King fleet and reduced demand for spare parts in India in particular. We did, however, see increased overhaul activity in the US for the F-35B fleet and for the Typhoon fleet in Saudi Arabia.

Underlying operating profit

Gross profit of £575m was 2% lower than prior year reflecting lower LTSA margin improvements of £68m (2016: £82m), largely due to lower cost savings compared with 2016 on the Eurofighter Typhoon contract, and lower spare parts volumes. These were mostly offset by the non-repeat of £31m of one-off costs for the TP400 programme.

Overall the R&D charge of £78m (2016: £71m) was slightly higher and included ongoing future programme development across our portfolio focused on the combat and transport markets. Restructuring costs included within C&A were £14m higher due to the non-repeat of the one-off benefit in 2016 following the closure of the Defence Aerospace facility at Ansty. As a result of these changes, underlying operating profit of £374m was 7% lower than the prior year.

During the year, the Defence Aerospace order book was restated by £(441)m to reflect a number of assumption changes relating to certain historical orders and long-term contracts including revised scope and lower expectations of price escalation and delivery volumes. After order intake of £1.8bn, the order book closed at £3.4bn.

Operational and strategic review

Activity with key customers included major contract renewals with the US Department of Defense supporting engine fleets on aircraft such as the C-130 Hercules, V-22 Osprey and T-45 Goshawk. Together these cover around 3,000 engines and the orders taken in 2017 for over $1.4bn provide good visibility on a substantial portion of aftermarket revenues for the next five years. Internationally the business signed its first OE export order with the Japanese Self-Defense Force to power its new V-22 Osprey fleet and also secured additional Multi Role Tanker Transport engine contracts.

Operationally, the Defence Aerospace business focused on delivering on its long-term contracts for core transport programmes. In combat, LiftSystem production for the F-35B Lightning II increased, with the current in-service fleet performing well. The aircraft made its first international operational deployment with the US Marine Corps to Japan, and its first UK-based deployment for the MoD is planned for 2018. EJ200 production was lower following completion of the Saudi Typhoon contract in 2016, although there is the expectation of incremental orders from the State of Qatar following the signing of a contract to purchase 24 aircraft in December.

Technology inserts for the C-130 Hercules legacy fleet met operational performance expectations and demonstrated excellent reliability and fuel efficiency in extended hurricane operations during major US storms in 2017. This helped generate good international interest with a potential first export order currently being evaluated. Defence Aerospace continued with its strategy of moving into adjacent products to deepen relationships with existing customers, identifying an additional platform opportunity for infrared suppressors installed on the MH-47 helicopter to be fitted onto C-130 gunships.

The business continued with the modernisation programme of its manufacturing and technology research plant in Indianapolis with all key 2017 milestones achieved on time. The plant's first turbine production cell came on stream in March and a second is nearing completion. The modernisation will help drive meaningful productivity benefits and reduce operational overheads by 2020. We also announced further rationalisation of our operational footprint with the closure of our repair and overhaul facility in Oakland, California by 2020.

A joint venture agreement with Turkish industrial firm Kale Group positions us well to develop an indigenous combat engine for Turkey targeting the TF-X fighter jet. Development work has also continued on the Anglo-French Future Combat Air System (FCAS) feasibility programme, together with investment in future technologies to position us for new programme opportunities over the next decade.

Strategic aftermarket initiatives looked to deepen customer relationships and distribution capability, including an enhanced spares supply contract with Aviall, a Boeing company, covering all defence variants of the AE engine fleet. This multi-year contract is expected to significantly improve availability and logistics, while broadening international opportunities. In addition, two further SDCs were opened in Lossiemouth and Bangalore as we continue to find ways to enhance our offering with core customers, helping with preventative maintenance and maximising on-wing availability.

Defence Aerospace outlook

Outlook for the new business structure under IFRS 15 is discussed in the 2018 Outlook on page 58.

ROLLS-ROYCE INNOVATES IN THE ENGINE EQUIPMENT MARKET WITH INFRARED SUPPRESSORS

Rolls-Royce continues to demonstrate its engineering excellence and innovation with expansion into adjacent engine equipment markets in Defence Aerospace. Building on the success of the introduction of infrared (IR) suppressor technology on the MH-47 aircraft – protecting the platform from heat-seeking missiles – and a successful flight test of an advanced IR suppressor on the V-22, we were awarded a contract with US Air Force Special Operations Command to outfit its AC-130W Stinger II gunships with advanced IR suppressors to reduce the risk of detection during dangerous operations.

Operating environment

Rolls-Royce key differentiators

Advanced technology and Defence Aerospace's collaboration and innovation, in conjunction with partners and customers, are its unique hallmarks. These differentiators ensure successful delivery of products and services tailored to customers' evolving needs.

Market dynamics

- As threat levels around the globe increase and economies grow, many customers are considering increasing their defence budgets, therefore the business expects to see modest growth across the globe in the coming years.
- Revenue has historically been broadly balanced between OE sales and aftermarket services.
- In Europe, the political environment has resulted in a tendency for large defence programmes to be addressed by consortia of two or more companies. For example, Defence Aerospace has partnered with ITP Aero, MTU and Safran on the TP400 engine programme for the Airbus A400M.
- Barriers to entry are high, the competitive landscape is not envisaged to change significantly in the near future.

Opportunities

- Combat propulsion remains the largest market segment, with opportunities for current products (LiftSystem and EJ200) as well as new international and next generation programmes (Turkey TF-X and Anglo French FCAS).
- In transport, Defence Aerospace is vitalising existing capability with new products (T56 Series 3.5 kit and infrared suppressors) and is well positioned for next generation opportunities.
- There is strong service growth potential via technology insertion and emerging service opportunities using digital technology and data analytics to generate new solutions.
- There is strong interest in electrification and the business is exploring more electric and hybrid electric propulsion technologies and power generation for high energy systems.

Business risks

- If a major product failure in service is experienced, then this may result in loss of life and significant financial and reputational damage.
- If global defence spending experiences a further downturn, then financial performance would be impacted.
- If we do not continue to invest to improve the performance and cost of Rolls-Royce products, then market share may be lost.
- If the business suffers a major disruption in it supply chain, then delivery schedules would be delayed, damaging financial performance and reputation.
- If new applications are not secured, then the business may have to increase investment or accept erosion in capabilities.

HITACHI RAIL EUROPE HONOURS POWER SYSTEMS AS BEST SUPPLIER

In recognition of its outstanding support over the past three years, Hitachi Rail Europe awarded MTU its 2017 Best Supplier accolade for delivery performance. Power Systems has delivered over 200 MTU PowerPacks – a third of the total ordered by the company for rolling stock programmes including GWR's new intercity express trains in the UK – on time and at a consistently high quality. The relationship does not end with the engine deliveries: MTU has secured a ValueCare long-term maintenance contract for the PowerPacks, spanning just over 27 years, that includes preventive maintenance as well as repair and major overhaul.

Power Systems

Power Systems is a leading provider of high-speed and medium-speed reciprocating engines, complete propulsion systems and distributed energy solutions. The business serves the marine, land defence, power generation and industrial markets.

Key facts

>20,000
reciprocating engines sold per year

>1,200
development, production, service and dealership locations

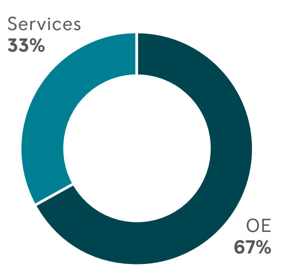
10,100
average number of employees during 2017

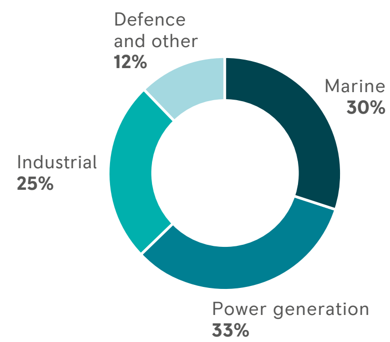
Power Systems | Key financial data *

	2017	Year-on-year change	Organic change†
Underlying revenue	£2,923m	+10%	+3%
Underlying gross profit	£842m	+20%	+12%
Underlying operating profit	£330m	+73%	+61%
Underlying operating margin	11.3%	+410bps	+410bps
Order book	£2.2bn	+8%	+4%

* See note 2 on page 132 for further segmental detail.
† Organic change is at constant translational currency, excluding M&A.

Underlying revenue mix





Key highlights

- New leadership team driving transformation programme to streamline product portfolio, reduce fixed costs and improve cash conversion
- Improved financial performance with 3% growth in underlying revenue and signs of market recovery
- Power generation products enjoyed good demand from China and for US data centres
- 240bp rise in underlying gross margin to 28.8% and material improvement in cash flow
- Service revenue growth of 6%: recovery in US spares demand and growing interest in a repair/reconditioning solution; and MTU's first long-term availability contract signed with Hitachi Rail in UK
- Launch of customer care centres and digital solutions reflect focus on customer service initiatives to provide service capability for the installed base of over 100,000 engines

Overview 2017

Power Systems' core business is the design, manufacture and servicing of reciprocating engines including diesel, gas and hybrid/electrical solutions, propulsion systems and distributed power generation plants. It has a significant installed engine base across a diverse range of end markets.

In 2017, strengthening demand in key end markets combined with a clear focus on operational improvements through the RRPS 2018 transformation programme. This enabled the business to deliver a strong performance achieved against the background of greater operational efficiencies and a more balanced annual production cycle. Revenue grew slightly and helped deliver significant profit and cash flow growth.

Under new leadership the business was able to achieve a material reduction in product variants and greater R&D discipline while targeting low-emission technologies. There has also been a move to develop more comprehensive and connected power solutions leveraging digitalisation as an enabler of service penetration and a growing competitive advantage. Power Systems also sought to expand its geographic reach with manufacturing and assembly partnerships in India and in the core growth market of China.

Financial overview

Underlying revenue

Underlying revenue of £2,923m increased by 3%. OE revenue grew 1% while service revenues increased 6%. Commodity-related markets, such as mining and oil & gas saw a strong recovery, as did construction and agriculture. Power generation products enjoyed good demand from China and for US data centres, but was more subdued elsewhere, as was the yacht market for much of the year. The service business broadened its market reach with good interest in our reconditioning service offering and from US customers.

Underlying operating profit

Overall, gross margins increased 240bps to 28.8% reflecting improved product mix, including from service revenue and programme applications, operational gearing and from higher volumes. An improved balance of production between the first and second half of the year also helped to achieve better factory utilisation. The actions taken as part of the RRPS 2018 programme on direct material costs also contributed to the improved gross margin.

A more focused approach to R&D drove a 6% reduction to £177m. C&A costs reduced 7% to £331m reflecting cost reduction activities in the year. Overall underlying operating profit which increased strongly to £330m (2016: £191m).

Operational and strategic review

Power Systems' customers span a range of end markets providing significant diversity. The strong performance in 2017 reflected growing demand in a number of key end markets as the overall environment improved. Engine production increased principally due to demand for the core Series 4000 products, large engines and rail Power Packs. The business was also successful in greater smoothing of the sales and production cycle over the year, reducing the proportion of sales and production activity in the fourth quarter, which has historically been abnormally high.

There was growing order interest through the year, particularly from naval and government customers with a stronger order book in the second half. The medium-speed business announced two notable power station orders from Bangladesh. Manufacturers active in the construction and agriculture market increased orders in advance of new EU emissions regulations due to come into force at the start of 2019. The first delivery of the new S4000 marine natural gas engine which is IMO Tier III compliant, was made to the Dutch ferry operator Doeksen. Gas systems sales in marine and power generation now make up over 14% of revenue from the S4000 range.

The business entered into new segments such as excavators with products meeting the latest emissions standards driven by orders from market leaders KATO and JCB. A project agreement was signed with agricultural machinery manufacturer Claas for the annual supply of around 5,000 Series 1000-1500 engines.

Power Systems also sought to grow its share of its engine service opportunity. This included the Reman product, where engines are reconditioned and restored to the latest MTU specification and come with an as-new warranty package, and which generated strong interest. Customer Care Centres were established in key time zones to greatly enhance technical support responsiveness to customers' critical requirements and applications were launched to deepen customer service and dialogue. Over time, the business will look to develop more comprehensive power solutions which will offer higher-value and digitally connected products which will deepen the customer experience. An initial step was the business's first long-term availability contract signed with Hitachi Rail for their UK Intercity programme, covering the period to the early 2040s; and Power Systems sees significant opportunity to develop similar long-term service offerings for other customers.

A reinvigorated leadership team under the new CEO, Andreas Schell, helped drive the RRPS 2018 restructuring programme. This was a key contributor to the strong performance in 2017, delivering significant operational improvements as the business pursued greater efficiencies and focus across both R&D and production. This delivered a 20% reduction in product variants and was combined with actions to improve material costs, quality control, inventory levels and a footprint reduction. Greater digitalisation within the development programmes helped to reduce the time to product launch, including the online monitoring of the ramp-up fleet and greater collaborative working.

Agreements made in India and China are intended to broaden the production capability in lower-cost locations closer to core end markets. These included the official registration of a 50/50 joint venture with Guangxi Yuchai Machinery in China. The agreement will enable localised production of the MTU Series 4000 diesel engines under license, which comes on-stream in early 2018, and is part of the China growth strategy. An agreement was also signed with Garden Reach Shipbuilders & Engineers Ltd for final assembly in India of Series 4000 naval engines, and we are looking to secure additional partnerships for end markets such as power generation.

R&D programmes have focused on the strategic priorities addressing new technologies, alternative fuels and system-based solutions, reflecting the structural shift away from traditional diesel engines expected over the next decade. This included strengthening the gas engine portfolio, reflecting greater demand from better infrastructure and availability within power generation, industrial and marine segments. This complements the investment in electrification to expand our hybrid capabilities and further development of micro-grid solutions. A co-operation agreement with G+L innotec GmbH for electrical-assisted turbo charging technology is part of a programme to build a range of advanced electrical capabilities as a basis for development of future hybrid and electrical drive solutions.

Power Systems outlook

Outlook for the new business structure under IFRS 15 is discussed in the 2018 Outlook on page 58.

MTU SERIES 4000 ENGINES – STILL LEADING THE PACK

When it was introduced more than two decades ago, the Series 4000 engine was ahead of its time. It was the first fast-running, high performance large diesel engine with common rail fuel injectors, technology that was only just debuting in the automotive industry. Today, it still leads the pack. From ships and locomotives, to mining vehicles and electricity generators, it is the all-rounder in the MTU engine range with sales of over 37,000 units. During 2017, the Series 4000 story opened a new chapter with the establishment of MTU Yuchai Power Co, a joint venture with China's Guangxi Yuchai Machinery Company. From spring 2018, it will manufacture up to 1,500 engines a year for the oil & gas and power generation industries.

Operating environment

Rolls-Royce key differentiators

Technology leadership and a reputation for market-leading performance and system approach, new product innovation, full lifecycle service solutions and high levels of customisation in collaboration with customers will maintain a strong market position for Power Systems.

Market dynamics

- Most OE markets started to recover in 2017, with the exception of the offshore marine markets. There is strong demand in onshore oil & gas markets.
- Increased utilisation in resource industries, especially oil & gas and mining, is driving aftermarket service demand after several years of challenging market conditions.
- There continues to be increasingly stringent government regulation in most markets with regards to emissions from diesel engines.
- The industry is increasingly focused on service solutions, electric and hybrid power solutions and digital capabilities; this is stimulating investments in acquisitions, partnerships and in-house digital organisations.
- Power Systems is experiencing increasing competition in its core power range as existing competitors launch new engine series and new players emerge with new technologies, e.g. Tesla.

Opportunities

- Rising energy demand in developing countries in combination with expansion of renewable energy sources will increase the demand for flexible generating sets and products beyond combustion engines (e.g. hybridisation, electrification and gasification).
- There is continued growth forecast in emerging markets, e.g. China and India, where domestic partnerships including local value creation will continue to be important.
- Tightening emission regulations in several regions will require clean diesel solutions where the business is well positioned (e.g. S4000 engine).
- Exponentially growing data usage requires rapid expansion of data centres and infrastructure and therefore corresponding back-up power solutions, Rolls-Royce generators are in particular demand due to their reliability.
- Increased utilisation in recovering resource markets due to wear and tear of existing fleets is leading to emerging services opportunities.

Business risks

- If we fail to develop more innovative products than our competitors, then market share would be lost in our core power ranges and markets.
- If electrical-storage technologies develop faster than anticipated, then these may substitute Rolls-Royce products and/or affect margins.
- If other players in the industry consolidate, then they may generate synergies or capabilities that outpace the ability of the business to get new products and services to market.
- If new disruptive service models, e.g. 3D printing of spare parts or new digital service models are offered by competitors, then we may lose attractiveness and competitive edge.

A WORLD FIRST SETS SAIL

Copenhagen harbour witnessed a world first in 2017 with the demonstration of the first remotely operated commercial vessel. The combination of technical expertise in ship intelligence at Rolls-Royce and global towage operator Svitzer's operational knowledge, ensured a successful maiden voyage for the Svitzer Hermod. The vessel was fitted with a Rolls-Royce dynamic positioning system, which provided data to the Rolls-Royce designed Remote Operating Centre (ROC) where the captain controlled the vessel.

Marine

Marine manufactures and services propulsion and handling solutions for the maritime offshore, merchant and naval markets, ranging from standalone products to complex integrated systems.

Key facts

30,000
commercial vessels using Rolls-Royce equipment

70
Naval forces using Rolls-Royce equipment

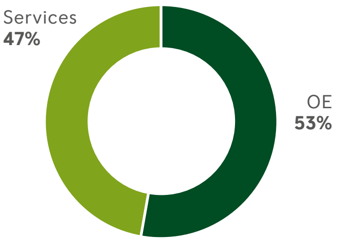
4,600
average number of employees during 2017

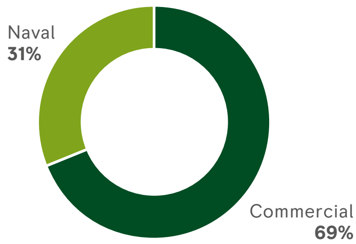
Marine | Key financial data *

	2017	Year-on-year change	Organic change †
Underlying revenue	£1,077m	-3%	-9%
Underlying gross profit	£225m	-5%	-9%
Underlying operating loss	£(25)m	-7%	+15%
Underlying operating margin	-2.3%	-10bps	-10bps
Order book	£0.8bn	-18%	-15%

* See note 2 on page 132 for further segmental detail.
† Organic change is at constant translational currency, excluding M&A.

Underlying revenue mix





Key highlights

- Underlying revenue 9% lower, reflecting ongoing offshore market weakness
- Underlying operating loss reduced through strong focus on cost control and modest cash outflow
- Continued investment in Rauma facility, Finland, to create state-of-the-art production and test facilities, together with progress on autonomous shipping programme
- Strategic review of commercial marine business underway

Overview 2017

With the average Brent crude oil price remaining below US$55/barrel for the third consecutive year, our commercial marine business continued to see substantially reduced activity levels in its historically important offshore market, but saw opportunities within the merchant sector. The naval business had a successful year with new projects from existing core clients such as the UK and US navies and from new geographies.

As a result of the weak market environment, the business focused on executing its restructuring programmes, reducing its fixed cost base, including significant headcount reduction, and closing non-core facilities. At the same time it is repositioning itself with product development such as permanent magnet thrusters, investing in future technologies as the industry moves to greater electrification and exploring the growing potential for remote vessel operations and autonomous shipping.

It was announced after the year end that our commercial marine operations would be subject to a strategic review in 2018, including the potential for sale, while the naval operations would be integrated into an enlarged Defence business unit.

Financial overview

Underlying revenues

Underlying revenue was down 9% at £1,077m, reflecting declining OE activity, with weakness in both offshore and cargo-related merchant markets. Service revenue was stable, though off a low base in 2016, and there was a notable improvement in naval revenue, particularly in the second half. The 15% decline in OE revenue resulted in service revenue rising to 47% of the total (2016: 43%). By segment, commercial marine was down 14% to £805m (2016: £875m) and naval was up 10% to £272m (2016: £239m).

Underlying operating loss

Despite the 9% decline in underlying revenue there was a £2m reduction in the underlying operating loss for the year to £25m (2016: £27m), helped by the greater proportion of higher margin service revenue and reflecting the positive impact of cost-cutting programmes. R&D spend was broadly flat at £46m, with the focus on developing ship intelligence capabilities as well as on new product development. C&A costs of £204m were 13% lower, demonstrating the progress made in reducing both headcount and fixed costs, together with a significant reduction in inventory which helped mitigate the scale of cash outflows.

Operational and strategic review

Lower activity within commercial marine reflected the weak market environment as deep water exploration activities remained at depressed levels. While OE activity continued to decline, the business was encouraged by the signing of the first offshore service contract since 2015 and a long-term service agreement reached for azimuth thrusters. There was also activity across the merchant sector including Norwegian ferry operator contracts for new gas engines and thrusters along with further auto-crossing system product sales.

Within the naval business a landmark contract was signed to supply the US coastguard's largest shipbuilding programme, initially covering up to 11 vessels with a range of propulsion and related technologies. In addition, the MT30 gas turbine continued to demonstrate its attractiveness as a naval engine choice with its selection by the Republic of Korea for three Daegu type frigates.

Work continued with a number of customers who had previously selected the MT30 including factory acceptance testing with the Italian Navy's landing helicopter dock vessel and in the UK both on the Royal Navy's Type 26 frigate programme and the two new aircraft carriers. HMS Queen Elizabeth completed successful sea trials and preparation for the first run of the HMS Prince of Wales power plants is scheduled for 2018. The team also announced a concept autonomous defence vessel capable of a range of single role naval missions, drawing on the expertise across power and propulsion and autonomous tools.

The main operational focus across the Marine business was the continued effort to reduce fixed costs to help mitigate the impact of the weaker offshore market. The restructuring programme announced in November 2016 achieved its target of £45-50m of annualised cost savings. This was helped during the year through further rationalisation of back office functions, together with the closure of the Shanghai assembly facility.

Investment of around £20m in the year was made in a state-of-the-art production and test facility in Rauma, Finland, which will deliver significant capabilities for what is a growing market opportunity.

The Marine business has also sought to capitalise on the broader shift from mechanical to electrical and digital technologies, both within its existing product range and also through investment in opportunities for integrated ship systems and remote or autonomous vessels. The launch of a new energy management solution and the first ever Marine availability-based contract reflects the growing potential in this area. Third-party funding was secured to support R&D for land-based control centres and a fleet management centre was established for remote optimisation of ship operations. Rolls-Royce successfully demonstrated this new technology by partnering with global towage operator, Svitzer, including the first trial of a remotely operated commercial vessel that took place in Copenhagen harbour.

Marine outlook

Outlook for the new business structure under IFRS 15 is discussed in the 2018 Outlook on page 58.

HMS QUEEN ELIZABETH TAKES TO THE SEAS

HMS Queen Elizabeth, the largest warship ever built for the UK's Royal Navy, left Rosyth dockyard in Scotland to begin sea trials in June 2017. This was a major landmark for Marine's naval business, having been involved in the project since its launch over a decade ago. The new class of aircraft carrier – weighing in at 70,000 tonnes – features a range of Rolls-Royce equipment including twin MT30 marine gas turbines, propellers and steering gear, stabilisers, reception points and electrical distribution. The MT30 continues to attract customers and is proving to be the gas turbine of choice for modern naval combatants with over 40 engines delivered to customers worldwide.

Operating environment

Rolls-Royce key differentiators

Marine is a leading provider of mission-critical solutions for the commercial and naval maritime markets, a position built on unique domain knowledge, continuous leadership in maritime innovation and digital solutions that allow close partnership with our customers globally across a broad range of ship types.

Market dynamics

- Marine operates in three key markets: merchant, offshore and naval. Growth within these markets is fundamentally driven by GDP, trade, oil price and defence spending.
- Naval budgets and naval shipbuilding are growing across target countries. The US market is stable and remains the largest market, although Asian markets are growing strongly.
- The offshore market broadly continues to be challenging linked to significant oversupply in several vessel segments and financial constraints within the customer base.
- Opportunities continue to be exploited in stable markets including naval, passenger, and tugs where we have also seen growth in interest in autonomous solutions.
- Key competitors continue to seek internal cost savings, whilst developing electrical and digital offerings.

Opportunities

- Historically cyclical marine markets are expected to recover across the range of merchant and offshore segments, but with a new focus on efficiency and cost.
- Continued trend towards hybrid/full-electric propulsion and integrated electric systems with increased adoption of energy storage solutions.
- Increasing interest from vessel owners in remote and autonomous solutions, which Rolls-Royce is pioneering, to improve performance, reduce cost and increase safety.
- Increasing evidence of suppliers partnering with vessel operators to deliver digital solutions to create greater availability and reduce operational risks.

Business risks

- If offshore exploration and production expenditure remains low, then there will be sustained pressure and further delay in market recovery for both new build and aftermarket.
- If competitors react to a depressed market by pricing aggressively on new equipment to protect future aftermarket revenue, then Marine could experience further pressure on near-term margins.
- If continuing market downturn leaves key customers, suppliers and competitors exposed to strain, then there could be further consolidation impacting the competitive landscape.
- If market shifts in technology (e.g. electrification and digitalisation) proceed at a faster rate than expected, then the business may not be positioned to take full advantage of this potential growth.

AUDACIOUS TAKES TO THE SEA

April saw the fourth of seven Rolls-Royce powered Astute submarines lowered into the water for the first time in Barrow-in-Furness, Cumbria, UK. Audacious is undergoing the next phase of its test and commissioning programme ahead of sea trials in 2018. For over 50 years, Rolls-Royce has been the sole technical authority for the UK nuclear steam raising plant that powers the Royal Navy's submarines and is home to the largest population of experienced nuclear design engineers in the UK. To support the current fleet, as well as develop and manufacture the new generation PWR3 reactor plant for the new Dreadnought class submarines, Rolls-Royce is investing in new manufacturing facilities, people and infrastructure at Derby, UK.

Nuclear

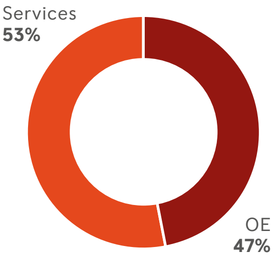
Nuclear is the technical authority for the UK nuclear steam raising plant that powers the Royal Navy's nuclear submarine fleet; managing plant design, safety, manufacture and service support. Our civil nuclear operation supplies safety-critical systems to about half the world's nuclear power plants.

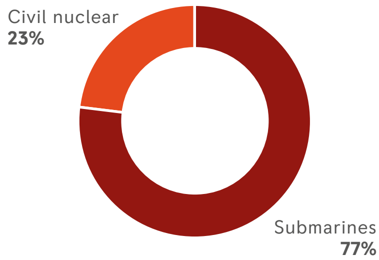
Nuclear | Key financial data *

	2017	Year-on-year change	Organic change †
Underlying revenue	£818m	+5%	+4%
Underlying gross profit	£133m	+10%	+7%
Underlying operating profit	£38m	-16%	-18%
Underlying operating margin	4.6%	-120bps	-120bps
Order book	£2.0bn	+8%	+7%

* See note 2 on page 132 for further segmental detail.
† Organic change is at constant translational currency, excluding M&A.

Underlying revenue mix





Key facts

>50
years' experience developing nuclear technologies

200
reactors in 20 countries where Rolls-Royce nuclear technology is installed

4,400
the average number of employees in 2017

Key highlights

- Underlying revenue up 4% on greater submarine activity, but lower underlying operating profit as R&D spend on small modular reactors increased
- Submarines achieves strong improvements in operational delivery; further investment in facilities
- Civil nuclear delivered key milestones as part of the long-term, retrofit contracts in France and Finland

Overview 2017

Nuclear plays a key role in the UK's submarine programme, acting as the technical authority, sole supplier and provider of through-life support for all submarine nuclear propulsion systems (representing over 75% of sales). This year, work principally focused on the Astute and Dreadnought classes, with significant progress made in operational and delivery performance as part of a multi-year improvement programme and increased investment in the Derby manufacturing facilities.

The civil nuclear business achieved key milestones on large retrofit contracts for safety-critical control systems in Finland and France. Service contracts were signed with nuclear utility customers across Europe, Canada and China while additional investment was made into the small modular reactor (SMR) programme where the UK Government announced a viability study covering a number of technologies.

Financial overview

Underlying revenue

Underlying revenue rose by 4% driven mainly by increased production activity in support of the Dreadnought class build programme, together with greater activity in civil nuclear new build contracts and field services. Submarine revenue grew 3% to £633m, while civil nuclear revenue grew 9% to £185m. There was a strong second half performance, reflecting phasing within the submarine programmes.

Underlying operating profit

Gross margin was broadly flat, reflecting a combination of increased activity offset by additional costs incurred to ensure higher levels of delivery performance for the key submarine programmes. The R&D charge was £17m higher than 2016 as the SMR programme moved to concept design activity and did not benefit from the one-off change in treatment of R&D credits (2016: £7m credit). As a result, underlying operating profit was £38m, £7m lower than the previous year.

Operational and strategic review

The Nuclear business focused on improving cost-control, sustainable quality and on-time delivery for the key submarine programmes. As part of an overall regeneration of the submarine business capability, a significant number of new manufacturing technologies and systems were introduced. These have helped to drive significant improvements in delivery of reactor plant components into the Astute programme.

Investment was made into new manufacturing facilities, people and infrastructure at Derby. This includes a planned expansion of the primary component operations factory, principally in support of the new Dreadnought programme, where production work is increasing in support of the build programme. The expanded facilities will help develop and manufacture the new generation PWR3 reactor plant as well as support the current submarine fleet.

In addition, the contract to deliver the nuclear propulsion system for HMS Agamemnon, the sixth of the new Astute class submarines was signed during the year. Steady progress was also made towards the establishment of a delivery alliance for the Dreadnought class which should provide greater programme and cost control benefits to help meet the affordability challenges for our MoD customer.

The civil nuclear business saw good growth during the year and is well positioned on new build projects. In the UK, activity was centred on Hinkley Point C, with a number of projects underway including the successful completion of the early contractor involvement (ECI) phase for the design of heat exchangers. We also signed the main contract to complete detailed design work and begin manufacturing and equipment delivery. There was progress on the supply and delivery of both waste treatments systems and ultimate diesel generators under similar ECI arrangements.

Internationally, the civil nuclear business achieved key milestones on schedule, as part of its long-term contracts to retrofit and upgrade safety-critical control systems at Loviisa, Finland and for EDF's fleet of nuclear reactors in France. The business renewed a contract with EDF to provide long-term support and secured a contract for the partial modernisation of safety-critical control systems on all 34 units of its 900MW French fleet.

At Fennovoima's new build plant at Hanhikivi, Finland, due for completion in 2024, the business was selected as preferred bidder to supply instrumentation and controls. The business strengthened its position in China with new commercial agreements signed with CTEC (CGN) and secured orders for the current new build programme at Tianwan 5 and 6. In Canada, the contract with Bruce Power to help improve through-life operational efficiency will utilise cutting-edge digital analytical tools developed from innovations in the business and based on capability within Civil Aerospace.

Rolls-Royce welcomed the UK Government's decision to set up an expert finance panel to assess the viability of technology options including short-term deployable SMRs and will participate in this review in 2018. The announcement in November of a technical feasibility study with state-owned Jordan Atomic Energy Commission (JAEC) for the construction of a Rolls-Royce SMR highlights the international potential, including growing interest from major markets in the Commonwealth and Middle East.

Nuclear outlook

Outlook for the new business structure under IFRS 15 is discussed in the 2018 Outlook on page 58.

ROLLS-ROYCE PARTNERS TO DELIVER SMRs

In 2017, Rolls-Royce announced it had teamed up with leading UK industrial engineering organisations with a track record of delivery – including Arup, Laing O'Rourke and Nuvia – to champion the potential of SMRs to meet the UK's energy needs. Together the partners in this consortium believe that SMRs represent a unique opportunity for the UK to become a global leader in innovative nuclear technologies, creating up to 40,000 highly skilled jobs, opening up valuable export markets and producing energy for as low as £60/MWh – competitive against wind and solar.

Operating environment

Rolls-Royce key differentiators

Over a 50-year period, Rolls-Royce has developed unique, leading technology capabilities in the defence nuclear market, and is the only company to provide the nuclear propulsion for the UK submarines programme. In the civil nuclear market, Nuclear deploys its offerings globally in partnership with customers across the nuclear lifecycle.

Market dynamics

- Population growth and improved living standards in emerging markets are driving a rise in demand for electricity; within the future energy mix, low-carbon energy is expected to increase, with nuclear energy accounting for a significant share.
- The competitive landscape has been changing in the last 12 months with some OE manufacturers facing significant financial difficulty along with programme delays and predicted overspends; aspirations for SMRs places the business in direct competition with large reactor vendors.
- Internationally, the Chinese and Russian reactor vendors are leading the export market, in part due to their ability to provide full or partial funding to the operating nation.
- Rolls-Royce is the sole custodian of a unique strategic national capability providing nuclear propulsion for UK submarines – Nuclear is therefore restricted from any other defence market.
- The UK submarine market expands and contracts in line with the MoD's acquisition programme. The business operates in a partnership model with Babcock and BAE Systems.

Opportunities

- For large civil nuclear reactor new build in the UK, Nuclear is well positioned with opportunities for engineering and supply chain offerings.
- SMRs provide a complementary alternative to large nuclear power installations for the global market.
- Capturing a higher share of the nuclear services market through extension of services to a larger geographic reach.
- Exploiting digital technology to optimise reactor plant operation and maintenance, thereby maximising the business' ability to access commercial incentives.
- Strengthening the position Nuclear has in the rapidly growing importance of the Chinese and Russian domestic and export markets.

Business risks

- If we experience a major product failure in service, then this could result in loss of life and significant damage to our reputation.
- If the pool of suitably qualified and experienced personnel is insufficient to support all elements of future programmes, then we may not have the ability to deliver to customer requirements.
- If public sentiment turns against further reliance on nuclear power, then there will be less support for the development of new and existing capabilities and markets would be greatly reduced.
- If political tensions prevent trade or co-operation with state-owned potential partner organisations, then access to anticipated nuclear opportunities in the UK and overseas may not be available.
- If the products which we offer are not affordable to customers or are not delivering the required effect, then demand for the products on offer may be greatly reduced.
- If there is a continued lack of clarity regarding governments' long-term energy strategies, then continued investment in technology such as SMRs may be questioned.

Technology

At Rolls-Royce, sustaining significant R&D expenditure is fundamental to our strategy and long-term growth potential.

Rolls-Royce is a technology rich company, delivering world-class products and services for its customers. Technology leadership is integral to maximising our competitive advantage and driving the Group's long-term success. The decision to split the technology and engineering functions in 2017 has allowed the newly formed technology team, led by the Chief Technology Officer, to enhance the pace and agility with which we harness the speed of change in our markets. The engineering team is responsible for design rigour, product safety and ensuring our skills match business needs. It is headed up by a newly appointed group chief engineer. The Science & Technology Committee provides oversight to all our technology investments.

Creating value from new technologies and innovation

The Group needs to balance short, medium and long-term technology needs against market opportunities. During 2017, actions have been taken to:

- establish a single technology organisation with responsibility for current and future technologies;
- maintain momentum on delivery of core technologies to ensure the competitiveness of our products and services;
- drive technology in digital design and manufacture to unlock the productivity benefits of these technologies;
- ensure future skills align with our technology strategy and further develop the Rolls-Royce Fellowship programme;
- ensure continuous improvement of the environmental impact of our products and services; and
- ensure continued focus on products and technology that will enable transition to a low carbon global economy.

Our innovation strategy helps our people contribute great winning ideas and our online innovation portal continues to be successful. The portal connects employees across the globe and has more than 24,000 users.

We are proud of our university partnership network which feeds Rolls-Royce with world-class applied research to underpin the technology in our products. We have 31 University Technology Centres (UTCs) and seven Advanced Manufacturing Research Centres (AMRCs) which not only provide research that is directly applied in our business, but also gives us access to a rich talent pool.

Technologies for today and tomorrow

The increasingly demanding requirements of civil aviation are driving game-changing innovation in our aerospace gas turbines. The new UltraFan architecture will provide a step change in efficiency and environmental performance for 'middle of the market' up to large widebody aircraft. We are also using our latest technology to meet new performance and customer requirements for our military and business jet engines.

Rolls-Royce gas turbines are underpinned by a range of ever-advancing core technologies and physical models. Research to improve our understanding of the fundamental physics of gas turbines is central to this and is increasingly supported by high-performance computing to model behaviour.

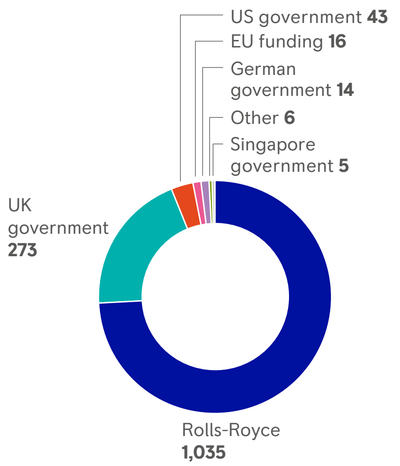
Key facts

704
Patents approved for filing

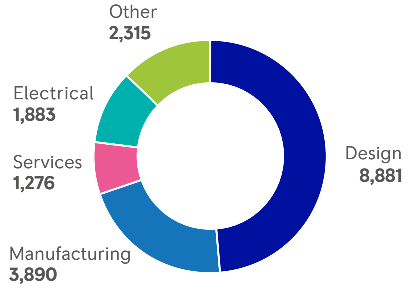
18,245 *
Number of engineers across the Group

£1.4bn
Gross R&D expenditure

2017 Gross R&D expenditure (£m)



Number of engineers (as at 31 Dec 2017)



* The number of engineers across the Group has increased from 16,526 in 2016 to 18,245 in 2017 as at 31 December. We have brought agency engineering contractors who support non-core tasks in new product introduction programmes into our direct headcount following a reinterpretation of export control regulations. For further headcount detail see page 46.

Advances in manufacturing technologies are also helping to improve our operational efficiency across the Group through the use of 3D printing technologies including additive layer manufacturing (ALM); virtual design and manufacturing; and robotics. Advanced materials remain vital to improving weight and performance.

We believe that nuclear technology will play a pivotal role in meeting future energy demands. Our innovative small modular reactor (SMR) design is an economic solution for low carbon power. We are working in cross-industry collaboration, using our extensive experience in the nuclear industry, combined with learning from the broader Group in digital and robotics technologies, to develop this solution (see case study on page 41).

Ship intelligence is an important theme in our Marine business, developing market-shifting system solutions, and improving safety and efficiency in the industry (see case study on page 34).

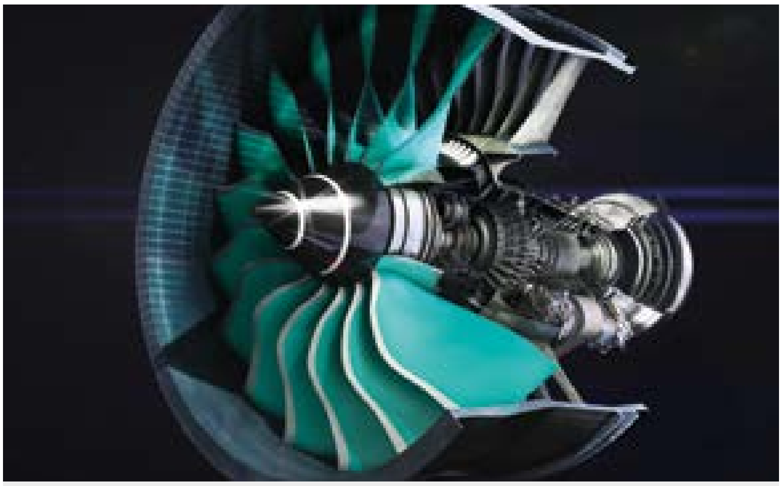
Our refreshed strategy places much greater emphasis on digitalisation and electrification as our business gradually moves from being a thermo-mechanical to a electro-mechanical company.

Electrification is already core to our Marine business where permanent magnet electric thrusters, hybrid ships and battery powered ferries are indicative of this change. In Power Systems, micro-grids are being used for peak load balancing or off-grid power generation, and hybrid technology is also revolutionising the performance of regional trains.

We are now designing, for the first time, electrical propulsion systems for aviation with civil and defence experimental aircraft which can exploit the flexibility in aircraft design brought about by the electrification of aviation. Our recent announcement on the development of a full-scale hybrid electric demonstrator, jointly with Airbus and Siemens, cements our position as a pioneer of this next generation of aviation propulsion.

Digital technology impacts everything we do. Using data analytics and artificial intelligence across design, manufacture and services, we are driving production in our business, efficiency for customers and generating new innovations.

We are at a point of exciting change. Technology is driving core products to ever higher levels of performance while electrification and digitalisation are opening market-shifting new opportunities.



TECHNOLOGY IN ACTION TODAY – ADVANCE3 AND ULTRAFAN

Advance3 is the first major new civil aero-engine architecture for Rolls-Royce in decades and sets new benchmarks in efficiency, environmental performance and precision engineering. The new architecture and advanced technologies within Advance3 are required to meet the pace of change within the industry and remain on track to meet ACARE's FlightPath 2050 goals. Innovations include lean-burn combustion and new manufacturing and material technologies, including 3D printing and ceramic matrix composites. Advance3 is central to the UltraFan demonstrator programme, which will add power gearbox, composite fan and high-speed turbine technology elements. Advance3 will be 20% more fuel efficient than the original Trent 700 engine. When combined with UltraFan from 2025, that efficiency saving will extend to 25%.

FLEXIBLE POWER – MICRO-GRIDS

Rolls-Royce reciprocating engines are increasingly being integrated with multiple power generation assets and storage into micro-grids, able to dynamically manage the supply of power and react to fluctuations in demand. The rapid start-up, fast increase in output and quick shutdown characteristics of MTU engines make them an ideal component of next generation micro-grids. Applications include power provision for large industrial sites and very remote or rural areas. Micro-grids are increasingly being seen as the perfect solution for the problem of providing reliable and optimal power.

Environment

As a leading industrial technology company, our activities have a profound effect on society and the environment. We have an irrefutable role in addressing the risks and opportunities associated with climate change.

Our approach

We have a long-standing commitment to reducing the environmental impact of our products, services and manufacturing activities. This commitment is embedded within our governance framework, including our operating system and production system, and therefore is not a standalone environmental policy. During the year we strengthened our approach to governance and risk management in this area by introducing an executive-level environment & sustainability committee. Our environmental strategy focuses on three core areas:

1. Further reducing the environmental impact of our products and services
2. Developing new technologies and capabilities for low emission products and services
3. Continually reducing the impact of our business operations and facilities

1. Products and services

In 2017, over two-thirds of R&D investment at Rolls-Royce went into improving the environmental performance of our products. Together with our supply chain and research partnerships, we have delivered products that are industry-leading in terms of fuel efficiency, emissions and noise.

Our service capabilities contribute to reducing environmental impact by maintaining our products to the highest standards. Increasingly we are able to repair individual engine components, reducing the manufacture of new parts and minimising customer disruption.

We are also frequently retro-fitting improvements throughout the life of our engines. Our global network of service provider partners is crucial to this.

TRENT XWB

Our Trent XWB engine is the sixth generation of the Trent engine family and is now the most efficient large aero-engine flying today. It delivers 15% better fuel efficiency than the original Trent engine.

PROJECT SUNSHINE

Over 16,700 photovoltaic panels have been installed on the roof and car port of our Seletar campus in Singapore. This became fully operational in June 2017, and currently provides 7% of the site's electricity needs, helping save over 31,000 tonnes of CO_2 across its lifetime. This is one of a series of low carbon energy projects completed during 2017 including; a ground-source heating installation at our Bristol, UK site; a further solar installation at our Aiken, US facilities; and a combined heat and power (CHP) facility at our Friedrichshafen campus, Germany.

2. New technologies and capabilities

The transition to a low carbon global economy is dependent on the development of new technologies and capabilities. We are building on our strong engineering heritage to produce state-of-the-art electro-mechanical and hybrid power systems, combined with digital solutions. This means building on our existing thermo-mechanical products to deliver step changes in emissions performance. In partnership with our global network of University Technology Centres and Advanced Manufacturing Research Centres, Rolls-Royce is able to apply innovations across the product portfolio.

For more information
see Technology, pages 42 and 43

3. Business operations and facilities

We continue to invest in new facilities and manufacturing technologies which will reduce the environmental impacts of our operations even as we increase engine production. We continually monitor performance across our global footprint to set policy, procedures and targets.

Absolute GHG emissions ($ktCO_2e$)

415 $ktCO_2e$

2025	TARGET	247
2017		**415**
2016		424
2015		455
2014	BASELINE	494

Target: Reduce GHG emissions by 50% by 2025 [1,2]

During 2017, we completed several renewable solar installations and low carbon energy schemes as part of our longer-term strategy to reduce the environmental impact of our operations.

Energy use (MWh/£m)

81 MWh/£m

2020	TARGET	81
2017		**81**
2016		95
2015		112
2014	BASELINE	116

Target: Reduce energy use by 30% by 2020 [1]

We have continued to invest in energy efficiency improvements, including lighting, heating and compressed air systems upgrades, investing a further £8m in 2017. As a result, we have met our energy reduction target three years early.

Total solid and liquid waste (t/£m)

3.57 t/£m

2025	TARGET	3.33
2017		**3.57**
2016		4.48
2015		4.31
2014	BASELINE	4.43

Target: Reduce solid and liquid waste by 25% by 2025 [1,3]

We have made good progress with reducing the amount of waste we generate, despite increasing engine production. During 2017, we launched a renewed waste programme, focused on key waste streams including machining coolant and process chemicals.

Waste to landfill (000 tonnes)

3.8 tonnes

2020	TARGET	0
2017		**3.8**
2016		4.8
2015		7.2
2014	BASELINE	6.7

Target: Achieve zero waste to landfill by 2020 [1]

We are progressing well with our target of zero non-hazardous waste to landfill. Over 40 of our manufacturing and office sites have now achieved zero waste to landfill.

1 External assurance over the STEM, energy, GHG, and TRI rate data provided by Bureau Veritas. See page 195 for their sustainability assurance statement.
2 Statutory greenhouse gas (GHG) emissions data details on page 200.
3 Waste data for 2016 and 2017 has been calculated in accordance with our basis of reporting, as set out at www.rolls-royce.com/sustainability. There remains a degree of uncertainty in the accuracy and completeness of waste-related data. We will continue to review historical and source data and if a material impact is identified will seek to restate these reported figures in 2018. As a result of these continued issues with data completeness we have extended our total solid and liquid waste reduction target from 2020 to 2025. The baseline year of 2014 remains unchanged. See pages 107 and 108 for more detail.

People

We are committed to creating an environment where all our people are able to be at their best. We are determined to ensure we have the right values and competencies for the business today, and the right capabilities and behaviours for the future.

Care

Create a working environment where each of us is able to be at our best.

Growing capabilities

Key capabilities needed to secure emerging opportunities:

- systems integration
- electrical engineering
- data sciences

Growing behaviours

Key behaviours needed to secure emerging opportunities:

- pursue collaboration
- seek simplicity
- embrace agility
- be bold

Core competencies

Key competencies needed to safeguard our current competitiveness:

- engineering pre-eminence
- programme management
- business acumen

Core values

Key values needed to safeguard our current competitiveness:

- 'Trusted to Deliver Excellence'
- act with integrity
- operate safely

Our 2017 headcount

Our global employee distribution continued to evolve as we increased production in our Civil Aerospace business and faced continued external pressure on our Marine business. Our total employee turnover rate for 2017 was 9.3%.

Headcount by business unit [1]

	2017	2016
Civil Aerospace	24,600	23,800
Defence Aerospace	6,100	6,000
Power Systems	10,100	10,300
Marine	4,600	5,300
Nuclear	4,400	4,300
Other businesses and corporate	200	200
Total	**50,000**	**49,900**

Headcount by location [1]

	2017	2016
UK	22,500	22,300
US	6,200	6,300
Canada	1,000	1,000
Germany	10,600	10,700
Nordic countries	3,000	3,400
Rest of world	6,700	6,200
Total	**50,000**	**49,900**

Health and safety

It is with deep regret we report two fatalities, in separate incidents, during the year. One work-related incident resulted in a fatal accident at a customer's site. The other incident was road-traffic related and occurred while commuting to work – a reportable incident in Germany where it occurred.

These tragic incidents reinforce the importance of health and safety across all that we do and led us to strengthen the governance that underpins our HSE policy. We conduct thorough investigations into actual and potential high-consequence incidents and apply lessons learnt across our global operations through risk-based improvement programmes.

Our total reportable injury (TRI) rate for 2017 was 0.55 per 100 employees [2]. This represents a 14% improvement since 2014. In 2017, we initiated focused improvement plans on areas of the Group with the greatest safety challenges. In 2018, we will launch a Group-wide programme focusing on sites considered to have higher HSE risk profiles, to provide a detailed understanding of potential HSE risk and required controls.

Employee wellbeing is a core element of our approach to managing health and safety and to enabling our people to be at their best. We are investing in creating workplaces where employees are encouraged to make healthier choices. Our LiveWell accreditation scheme recognises sites that have taken steps to create environments that support employee wellbeing. To date, 60% of our manufacturing and office facilities have achieved a LiveWell award.

For more information on our health and safety performance see the Safety & Ethics Committee Report, pages 104 to 109.

Employee engagement

During 2017, we shifted our focus from performance management to performance enablement, encouraging our managers to adopt regular, less formal conversations, feedback and coaching with their teams. Employee performance ratings are now made up of delivery against objectives and performance against our values and behaviours, including those set out in our Global Code of Conduct.

[1] Headcount data is calculated in terms of average full-time employees.
[2] External assurance over the STEM, energy, GHG, and TRI rate data provided by Bureau Veritas. See page 195 for their sustainability assurance statement.

During 2017, we invested £31.2m in employee learning and development, delivering over a million hours of employee training in subjects ranging from HSE, quality, product safety, export control and ethics.

We provide a variety of channels to communicate with and listen to employees and their representatives and encourage participation and engagement throughout the organisation.

Our annual employee opinion survey helps measure the success of these engagement activities. More than 30,000 employees took part in the survey this year which gave a snap-shot of progress against our key engagement drivers. We maintained our employee engagement score of 75 in 2017, the same as in 2016. The survey highlighted strengths in company values, ethical behaviours, and employee accountability, as well as fairness and inclusiveness. Areas for improvement identified included prompt decision making and establishing priorities.

For more on the Board's employee engagement activities see page 73.

SUPPORTING OUR LGBT COLLEAGUES

We are committed to building an inclusive culture and diverse workforce. PRISM is our UK employee resource group (ERG) for lesbian, gay, bisexual and trans (LGBT+) people. The PRISM vision is to connect, encourage and develop diverse people to drive innovation, attract and promote talent and to support global growth. We have 14 ERGs globally with a variety of focuses and more planned.

Diversity and inclusion

We believe that having a culture of inclusion is the foundation for driving diversity. During 2017, we made significant progress, however diversity continues to be a challenge for Rolls-Royce and the engineering sector as a whole.

We have launched a new diversity and inclusion strategy and reviewed our global diversity and inclusion and anti-discrimination policies to ensure all employees, regardless of gender, race, religion or physical ability are treated with respect and are empowered to work without fear of bullying or harassment.

We give full and fair consideration to all employment applications from people with disabilities and support disabled employees, helping them to make the best use of their skills, expertise and potential.

We are recruiting from groups under-represented in the engineering sector, particularly women, those from disadvantaged backgrounds and minority ethnic groups.

We believe it is important to increase the number of women at all levels, as well as attracting more women and people from diverse backgrounds into science, technology, engineering and maths (STEM) careers. Our work with organisations such as Women in Science and Engineering seeks to boost our visibility amongst potential female employees, and we support initiatives such as the Institution of Engineering and Technology's '#9percentisnotenough' campaign.

We published our gender pay report for the UK in November 2017. Further details can be found on page 94.

Our diversity and inclusion targets

During 2017, we launched a new diversity and inclusion strategy with global targets to increase female participation at all levels of our organisation by 2020. Our employee population is currently 15% female.

30% female

High potential population

30% female

Graduate population

17% female

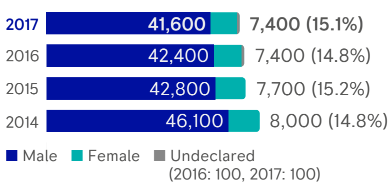
All employee population

Our global targets are supported by local targets in key regions where there are specific diversity challenges associated with ethnicity, nationality and age.

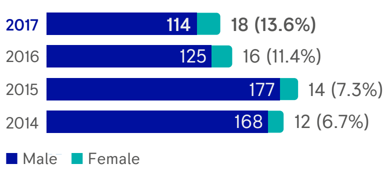
We have also introduced a global target around inclusiveness, measured by a subset of our employee opinion survey. We have agreed to improve our performance year-on-year for questions related to fairness and inclusiveness.

For Board members by gender see Nominations & Governance Committee Report, page 82.

Employees by gender *



Senior managers by gender



* In 2016 we reclassified certain joint ventures as joint operations. As a result, 900 employees are listed in our overall headcount, however we do not currently collect diversity information for these joint operations, therefore they are omitted from this data.

STEM

A strong pipeline of diverse talent and experience is critical to the future success of our business. We are committed to inspiring the next generation into science, technology, engineering and maths (STEM) careers.

We recognise the need to engage young people in STEM at an early age, enabling them to make informed education and early career choices. Our education outreach and community investment programmes particularly focus on activities that demonstrate the lifelong opportunities that careers in STEM can offer. We are actively targeting groups under-represented in STEM sectors to attract more people from diverse backgrounds.

Globally we aim to reach six million people through our STEM activities and programmes by 2020. 1,400 Rolls-Royce employees volunteer their time as STEM ambassadors, helping us to reach 3.8 million [1] people since 2014. This includes one million people in 2017, 48% of whom were actively engaged in our programmes.

We continue to attract high numbers of applicants to our graduate and apprentice development programmes. These provide a pipeline of talent into engineering and other functions.

During 2017, we recruited 313 graduates and 339 apprentices worldwide. 74% of these graduates joined engineering development programmes.

The proportion of women recruited as apprentices in our 2017 intake increased to 21%, and the proportion of female graduates increased to 22%.

We have agreed a global target to increase our female graduate population to 30% by 2020 as part of our diversity and inclusion strategy.

MUSKAAN PROJECT, INDIA

The Rolls-Royce Muskaan project aims to increase young peoples' interest in STEM subjects by demonstrating how fun science and maths can be. Muskaan, which means 'smile' in Hindi, is designed to supplement the school's regular curriculum through guided interactive learning and classroom kits dedicated to STEM topics. The project reached more than 2,100 school children across India in 2017.

SUPPORTING OUR COMMUNITIES

We are committed to having a positive impact in the global and local communities where we operate. We focus our engagement activities on four key areas:

- education and skills, primarily STEM;
- arts, culture and heritage;
- environment; and
- social investment.

Our activities vary from national programmes, such as the Rolls-Royce Science Prize, to local activities with schools and community partners close to our operations. We encourage our people to volunteer their time as part of our employee engagement and development programmes.

We believe there is greater impact in lasting engagement than one-off cash contributions, but do make charitable donations aligned to our strategy. During 2017, this included one-off donations to the Women in Tech Foundation and the Campaign for Science & Engineering.

In total, we invested £7.7m in supporting communities in 2017. This includes £4.3m in cash contributions and 93,900 hours in employee time.

Reach 6 million people by 2020

1,400 STEM ambassadors

£7.7m invested in supporting communities

[1] External assurance over the STEM, energy, GHG, and TRI rate data provided by Bureau Veritas. See page 195 for their sustainability assurance statement.

Ethics

Who we are and how we behave matters to our people and our stakeholders. We have made fundamental changes in recent years to place ethics and compliance at the heart of everything we do.

We have a Global Code of Conduct (the Global Code) that applies to all employees of Rolls-Royce, its subsidiaries and controlled joint ventures, wherever they are located. Breaches of the Global Code are not acceptable and will result in the Company taking action. This may include disciplinary action up to and including dismissal. In 2017, there were 65 employees (2016: 38 employees) whose employment ended for reasons related to breaches of the Global Code.

The Global Code sets out principles that underpin our values and the way we do business. It also provides guidance on how to apply these in everything we do. 100% of managers completed a certification exercise during the year, confirming their commitment to the Global Code. We encourage all employees and stakeholders to raise ethical questions or concerns, without fear of retaliation. For employees, we provide four main channels for them to speak up, including a 24hr Ethics Line and network of 84 local ethics advisers around the world.

Anti-bribery and corruption

The Global Code includes clear statements regarding our zero-tolerance approach to bribery and corruption.

This year we revised our anti-bribery and corruption related policies, standards and guidance and brought them together into one comprehensive Global Anti-Bribery and Corruption Manual. This provides a framework for our anti-bribery and corruption programme and clearly sets out the responsibilities that apply to all employees, including requirements to conduct due diligence on customers, suppliers and other business partners.

Our anti-bribery due diligence includes screenings, interviews and obtaining in-depth due diligence reports from specialist providers, depending on the level of risk that a particular third party presents.

In addition to our all-employee ethics training, we have introduced training workshops for senior managers and any other roles that are likely to be exposed to situations where there is a risk of attempted bribery and corruption.

ALL-EMPLOYEE ETHICS TRAINING

Our ethics training programme is designed to bring our Global Code of Conduct to life. This year's all-employee training focused on having conversations about its application and its relevance to individual roles. 98% of employees completed this activity.

Human rights

We remain committed to protecting and preserving the human rights of our employees, those working in our global supply chain, and those who may be impacted by our business operations.

Our commitment to human rights, including our position on forced labour, involuntary labour, child labour, and human trafficking, is outlined in the Global Code, as well as our Global Supplier Code of Conduct and Global Human Rights policy. We have taken an integrated approach to minimising the risk of slavery and human trafficking taking place in our supply chain or any part of our business. Adherence and due diligence associated with these policies is embedded within our operating system and processes across our global functions, including human resources, ethics and procurement.

More information on our approach can be found in our anti-slavey and human trafficking statement, available at www.rolls-royce.com.

Ethics in our supply chain

We spent over £8.7bn in our external supply chain in 2017. Our suppliers and partners are vital to our success, so we are committed to working collaboratively with them to maintain the highest ethical standards.

At the end of 2017, all our suppliers had agreed to adhere to our Global Supplier Code of Conduct, or a mutually agreed alternative. This sets out the minimum behaviours and practices we expect our suppliers to demonstrate based on our own Global Code and related policies, including our Global Human Rights policy and Global Anti-Bribery and Corruption Manual.

This year, we have introduced further monitoring and assessments prioritised by the potential level of risk the supplier may present. To date, 67% of prioritised suppliers have completed a self-assessment questionnaire which aims to understand how suppliers are adhering to the principles set out in the Global Supplier Code of Conduct within their own operations. We are now working with these suppliers to collaboratively agree plans to address any gaps that may have been identified as part of our supplier management frameworks.

For more information see Safety & Ethics Committee Report, pages 104 to 109.

Additional Financial Review

In this section we provide additional detail and commentary on key financial areas – Group reported results, funds flow and balance sheet and additional Civil Aerospace detail.

Group – reported results

Reconciliation between underlying and reported results

Year to 31 December £m	Revenue		Profit before financing		Financing		Profit/(loss) before tax	
	2017	2016	2017	2016	2017	2016	2017	2016
Underlying	15,090	13,783	1,175	915	(104)	(102)	1,071	813
Revenue recognised at exchange rate on date of transaction [1]	1,217	1,172	–	–	–	–	–	–
Mark-to-market adjustments on derivatives [8]	–	–	24	–	2,648	(4,420)	2,672	(4,420)
Related foreign exchange adjustments [1]	–	–	345	570	257	(151)	602	419
Movements on other financial instruments	–	–	–	–	11	(8)	11	(8)
Effects of acquisition accounting [2]	–	–	(129)	(115)	–	–	(129)	(115)
Impairments [3]	–	–	(24)	(219)	–	–	(24)	(219)
Exceptional restructuring [4]	–	–	(104)	(129)	–	–	(104)	(129)
Acquisitions and disposals [5]	–	–	798	(3)	–	–	798	(3)
Financial penalties [6]	–	–	–	(671)	–	–	–	(671)
Post-retirement schemes [7]	–	–	–	(306)	1	3	1	(303)
Other	–	–	–	(1)	(1)	1	(1)	–
Reported	16,307	14,955	2,085	41	2,812	(4,677)	4,897	(4,636)

The changes in 2017 resulting from underlying trading are described on page 18.

Consistent with past practice and IFRS, we provide both reported and underlying figures. As the Group does not hedge account in accordance with IAS 39 *Financial Instruments*, we believe underlying figures are more representative of the trading performance by excluding the impact of year-end mark-to-market adjustments. In particular, the USD:GBP hedge book has had a significant impact on the reported results in 2017 as the USD:GBP rate has risen from 1.23 to 1.35 and the EUR:GBP has fallen from 1.17 to 1.13. The adjustments between the underlying income statement and the reported income statement are set out in note 2 to the Consolidated Financial Statements. This basis of presentation has been applied consistently.

The most significant items included in the reported income statement, but not in underlying are summarised below.

Profit before financing

1. The impact of measuring revenue and costs at spot rates rather than rates achieved on hedging transactions increased revenue by £1,217m (2016: £1,172m) and increased profit before financing by £345m (2016: increased £570m).
2. The effects of acquisition accounting £129m (2016: £115m) principally relate to the amortisation of intangible assets arising on the acquisition of Power Systems in 2013.
3. The impairment of goodwill, investments, PPE and inventory of £24m (2016: £219m). In 2017, this includes £12m as a result of consolidating a previously unconsolidated subsidiary and £12m relating to the Marine business. The impairments in 2016 largely related to the Marine business as a result of the weakness in the oil & gas market.
4. Exceptional restructuring costs of £104m (2016: £129m). These are costs associated with the substantial closure or exit of a site, facility or activity related to the significant transformation project that the business is currently undertaking. A number of the projects within the transformation programme are spread over several years.
5. The acquisition of ITP Aero resulted in a gain of £553m from the revaluation of the previous joint venture investment and recognition of a bargain purchase of £245m.
6. In 2016, £671m of penalties from agreements with investigating bodies were recognised.
7. In 2016, the UK pension schemes were restructured resulting in costs of £306m, principally a settlement charge on the transfer of the Vickers Group Pension Scheme to an insurance company.

Financing and taxation

8. The mark-to-market gain on the Group's hedge book of £2,648m (2016: loss of £4,420m). These reflect: the large hedge book held by the Group (circa USD $38.5bn); and the strengthening of sterling, particularly against the US dollar offset by the weakening of sterling against the euro, as noted above. At each year end, our foreign exchange hedge book is included in the balance sheet at fair value (mark-to-market) and the movement in the year included in reported financing costs.

Appropriate tax rates are applied to these additional items included in the reported results, leading to an additional tax charge of £361m (2016: credit £865m), largely as a result of the mark-to-market adjustments £(463)m and £792m in 2017 and 2016 respectively. In addition, £163m of advance corporation tax credits has been recognised as a result of changes to UK tax laws in 2017.

Group – funds flow

Summary funds flow statement [1]

£m	2017			2016	Change excluding ITP Aero
	Excluding the impact of ITP Aero	ITP Aero	Total		
Opening net (debt)	(225)	–	(225)	(111)	–
Closing net (debt)/funds	(520)	215	(305)	(225)	–
Change in net (debt)/funds	(295)	215	(80)	(114)	–
Underlying profit before tax	1,071	–	1,071	813	+258
Depreciation and amortisation	741	–	741	720	+21
Movement in net working capital	546	(14)	532	(55)	+601
Expenditure on property, plant and equipment and intangible assets	(1,732)	–	(1,732)	(1,201)	-531
Other	(164)	–	(164)	47	-211
Trading cash flow	462	(14)	448	324	+138
Contributions to defined benefit pensions in excess of underlying PBT charge	(9)	–	(9)	(67)	+58
Taxation paid	(180)	–	(180)	(157)	-23
Free cash flow	273	(14)	259	100	+173
Shareholder payments	(214)	–	(214)	(301)	+87
Net funds acquired/acquisitions	(17)	229	212	(153)	+136
Payment of financial penalties	(286)	–	(286)	–	-286
Other	8	–	8	–	+8
Foreign exchange	(59)	–	(59)	240	-299
Change in net funds	(295)	215	(80)	(114)	

[1] The derivation of the summary funds flow statement above from the reported cash flow statement is included on page 168.

Movement in working capital

The main drivers of the £546m cash inflow from a fall in working capital were increased receipts from airframers in advance of discounts payable to the operator (£460m) in Civil Aerospace together with an increase in payables (£120m) but partly offset by increased inventory (£330m), all linked with the ramp-up of our newer programmes. Other significant contributors to the working capital reduction were improved receivables and deposits (£90m) in Power Systems and the Avial distribution agreement in Defence Aerospace (£120m) and associated reduced inventory.

Expenditure on property, plant and equipment and intangibles

The major increases are due to: investment in Civil Aerospace operations and manufacturing assembly and test facilities as well as increases to the aero-engine fleet to support the growing installed fleet; and increased capitalisation of development costs in the Civil Aerospace business, reflecting the stage of the new programmes.

Pensions

Cash contributions reduced by £22m to £249m, split evenly between the UK and overseas. The UK contributions are net of a refund of £5m from a wound-up scheme. The UK pension cost increased by £21m in 2017, largely due to changes in discount rates which determine the accounting charge.

Shareholder payments

The change in shareholder payments reflects the difference between the 2015 and 2016 payments, which are paid in the following year.

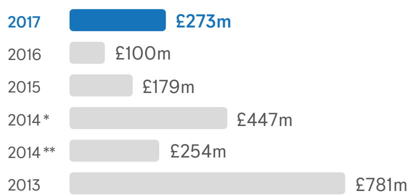
Acquisitions and disposals

The consideration for ITP Aero is payable in eight quarterly instalments from January 2018, no payments were made in 2017. The deferred consideration can be settled in cash or Rolls-Royce Holdings plc shares, at the discretion of Rolls-Royce with a 3% premium to be applied if the consideration is in shares. The net funds of ITP Aero on acquisition were £229m. From the date of acquisition to 31 December 2017, the net funds outflow in ITP Aero was £14m; excluding the impact of ITP Aero, free cash flow would have been £273m.

In addition, the consolidation of MTU Brazil for the first time resulted in the recognition of net debt of £17m.

Free cash flow

£273m



* Excluding Energy
** Including Energy

Payment of financial penalties

Following the agreements reached with investigating authorities in January 2017, £286m of penalties were paid in the UK, US and Brazil. Further UK payments of £378m (plus interest) will be made in 2019-2021.

Group – balance sheet

Summary balance sheet

At 31 December £m	Excluding the impact of ITP Aero	Impact of ITP Aero	2017	2016
Intangible assets	5,646	1,417	7,063	5,080
Property, plant and equipment	4,356	268	4,624	4,114
Joint ventures and associates	892	(204)	688	844
Net working capital [1]	(1,874)	(444)	(2,318)	(1,553)
Net funds [2]	(520)	215	(305)	(225)
Provisions	(815)	(68)	(883)	(759)
Net post-retirement scheme surpluses/ (deficits)	738	–	738	(29)
Net financial assets and liabilities [2]	(2,449)	(148)	(2,597)	(5,751)
Other net assets and liabilities [3]	(602)	(238)	(840)	143
Net assets	5,372	798	6,170	1,864
Other items				
US$ hedge book (US$bn)			38.5	37.8
TotalCare assets			3,536	3,348
TotalCare liabilities			(1,033)	(907)
Net TotalCare assets			2,503	2,441

1 Net working capital includes inventories, trade and other receivables, trade and other payables and current tax assets and liabilities.
2 Net funds includes £277m (2016: £358m) of the fair value of financial instruments which are held to hedge the fair value of borrowings.
3 Other includes other investments and deferred tax assets and liabilities.

The acquisition of ITP Aero has had a significant impact on the shape of our balance sheet which is described below. Other key changes are as follows:

Intangible assets
Intangible assets (page 142) increased by £566m. Additions of £973m (including £160m of certification and participation fees, £342m of development costs, £286m of contractual aftermarket rights and software of £135m) were offset by amortisation of £430m.

The carrying values of the intangible assets are assessed for impairment against the present value of forecast cash flows generated by the intangible asset. The principal risks remain: reductions in assumed market share; programme timings; increases in unit cost assumptions; and adverse movements in discount rates.

Property, plant and equipment
Property, plant and equipment (page 144) increased by £242m. Additions of £764m were offset by depreciation of £444m. Additions included an increase to the size of the Civil Aerospace engine pool (£136m) driven by fleet support for new programmes, investment in industrial footprint consolidation (£109m) and in manufacturing assembly and test (£68m).

Investments in joint ventures and associates
Investments in joint ventures and associates increased by £48m. The main movements were: additions of £48m, including £28m of investment in joint ventures that finance some of the Civil Aerospace spare engine pool; the Group's share of retained profit of £52m; offset by £44m of exchange differences.

Net funds
Movements in net funds are shown on page 51.

Net working capital
Net working capital reduced by £321m. As well as the cash impact of £546m described above, the movement reflects the payment of penalties of £286m. The remaining movements are primarily driven by movements in foreign exchange rates.

Provisions
Provisions largely relate to warranties and guarantees provided to secure the sale of OE and services. The increase of £56m includes a provision for tax interest and penalties that was previously included in current tax liabilities but reclassified due to guidance issued by the International Financial Reporting Interpretations Committee (IFRIC).

Net post-retirement scheme surpluses
Net post-retirement scheme surpluses (page 159) have increased by £767m.

In the UK (increase in surplus of £772m), changes in actuarial estimates reduced the value of the obligations £515m, principally due to: (i) inclusion of the latest mortality tables; and (ii) the reflection of actual experience as part of the 2017 funding valuation. In addition, there were returns (in excess of those assumed) on the scheme assets of £265m.

The position overseas has remained broadly stable, with in the impact of reduced discount rates in Germany and the US being offset by other actuarial gains in the US.

Net financial assets and liabilities
Net financial assets and liabilities principally relate to the fair value of foreign exchange, commodity and interest rate contracts, set out in detail on page 150. All contracts continue to be held for hedging purposes. The fair value of foreign exchange derivatives is a net financial liability of £2.3bn, a reduction of £3.2bn in the year, mainly a result of the strengthening of sterling against the US dollar.

US$ hedge book
The US$ hedge book increased by 2% to US$38.5bn. This represents around six years of net exposure and has an average book rate of £1 to US$1.55.

Net TotalCare assets
Net TotalCare assets relate to long-term service agreement (LTSA) contracts in the Civil Aerospace business, including the flagship services product TotalCare. These assets represent the timing difference between the recognition of income and costs in the income statement and cash receipts and payments.

Impact of the acquisition of ITP Aero
The acquired net assets of ITP Aero are shown on page 167. The most significant intangible assets acquired relate to customer relationships, to technology, patents and licences and to in-process development. In addition, working capital includes an accrual of £648m for the deferred consideration to be paid in 2018 and 2019. The deferred consideration can be settled in cash or Rolls-Royce Holdings plc shares, at the discretion of Rolls-Royce with a 3% premium to be applied if the consideration is in shares.

STRATEGIC REPORT

Civil Aerospace – additional financial information

Civil Aerospace underlying revenue analysis

£m	2017	2016	Change	Organic change
Original equipment	**3,818**	3,357	+14%	+12%
Large engine: linked and other	**1,895**	1,604	+18%	+18%
Large engine: unlinked installed	**1,103**	742	+49%	+49%
Business aviation	**598**	757	-21%	-26%
V2500	**222**	254	-13%	-13%
Services	**4,205**	3,710	+13%	+12%
Large engine	**2,626**	2,289	+15%	+15%
Business aviation	**527**	452	+17%	+10%
Regional	**343**	342	–	-5%
V2500	**709**	627	+13%	+13%

Revenue

Overall, underlying revenue for Civil Aerospace rose 12% to £8.0bn, with OE revenue of £3.8bn (2016: £3.4bn) up 12% and services revenue of £4.2bn (2016: £3.7bn) also up 12%. The rise in OE revenue reflected record levels of widebody engine deliveries, with growth in Trent XWB-84 engine sales, to support the Airbus A350 XWB programme ramp-up, a significant contributor.

OE revenue from *large engine: linked and other* was up 18% reflecting increased volumes of Trent 700 engines following a relatively low year in 2016 in which a higher proportion of A330s built were powered by competitor engines, combined with higher deliveries of Trent 900 engines for A380s for Emirates. Sales of spare engines to joint ventures, included in *large engine: linked and other*, generated revenue of £362m (2016: £288m).

OE revenue from *large engine: unlinked installed* increased 49%, driven by improved pricing and higher volumes of Trent XWB-84 engines.

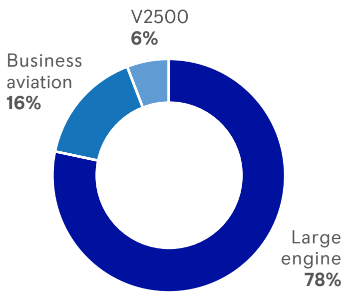
The 15% growth in *large engine* service revenue reflected a 22% increase in invoiced TotalCare flying hours from the growing in-production engine fleet which more than offset the 12% flying hour reduction from mature engine types as older aircraft retired or where customers selected alternative service offerings on transitions. Higher volumes of spare part sales for RB211-535 and Trent 700 engines for time and material overhauls and for TotalCare engines, where not covered by the flying hour payments, also contributed to the revenue increase.

Revenue from *business aviation* OE engine sales declined for a second year, with a fall in unit volumes of 32%, mostly BR710's, reflecting continued weakness at the higher end of the market coupled with the effect of the transition to newer non Rolls-Royce powered platforms. Volumes of the newer BR725 engine, which powers the Gulfstream G650 and G650ER, remained broadly stable. Overall, although business aviation OE revenues declined 26%, service revenue increased by 10% reflecting continued fleet expansion, increased CorporateCare penetration and price escalation.

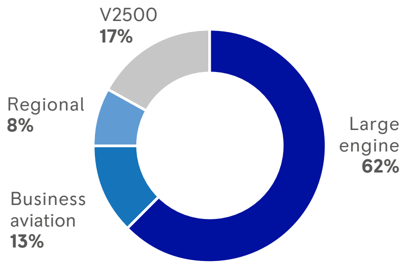
Service revenue from our *regional* jet engines declined 5%, reflecting further retirements and reduced utilisation of our fleets by North American operators in particular.

On the *V2500* programme, which powers aircraft including the Airbus A320, revenue from OE modules declined 13% as production slowed down further as Airbus transitions to the A320neo, powered by a competitor engine provider. However, *V2500* service revenues of £709m increased by 13% driven by an increased number of overhauls with increased workscope. The contractual payment from International Aero Engines based on flying hours was broadly stable, with a reduction in flying hours flowing from retirements of some older aircraft being mitigated by price escalation.

Underlying revenue mix 2017 – original equipment



Underlying revenue mix 2017 – service



Contract accounting adjustments

The in-year net charge from long-term contract accounting adjustments included within the gross margin totalled £18m (2016: £90m total benefit, including a £35m benefit from a change to our long-term USD:GBP planning rate).

The benefit from lifecycle cost improvements in 2017 of £113m (2016: benefit of £217m) included a £70m benefit across the portfolio of business aviation contracts following re-assessments of shop visit frequency and costs. Given that the performance of our in-service fleet has evolved over the year, we have increased our estimates for future costs associated with part life limitations, particularly in relation to compressor rotor blades within the Trent 1000 and high-pressure turbine blades within the Trent 900. The resulting contract accounting adjustments associated with these shortfalls in part life, combined with additional customer disruption support costs across these two engine programmes, represents £114m (2016: £55m) of the total £148m impact (2016: £98m).

The overall benefit in 2017 from other operational changes was £17m (2016: £64m charge). This comprised a £60m charge driven by changes in the utilisation pattern of several customers' Trent 700, Trent 800 and RB211 fleets, offset by a £77m benefit taken in the first half arising from a change to a customer credit rating risk assessment.

Contract accounting adjustments

£m	2017	2016
Lifecycle cost improvements	113	217
Change in estimated long-term USD to GBP planning rate	–	35
Technical costs	(148)	(98)
Operational changes	17	(64)
Total contract accounting adjustments	**(18)**	**90**

TotalCare net assets

TotalCare net assets increased in 2017 by £62m (2016: £230m) to £2.5bn. This reflected an increase in the overall cash deficit combined with higher linked profit driven by increased volumes of new linked engines of £612m (2016: £432m), notably the Trent 700. This increase was offset by adverse contract accounting adjustments taken in the year of £18m (2016: £90m benefit), foreign exchange of £(97)m (2016: £77m) and cash inflows and net other items of £(435)m (2016: £(369)m).

Contractual aftermarket rights (CARs)

The CARs balance increased by £230m (2016: increase of £169m) to £803m reflecting higher sales of unlinked Trent XWB engines partly offset by price increases and engine unit cost improvements.

TotalCare net assets

£m	2017	2016
Cash deficit reversal and profit from new linked engines	612	432
Contract accounting adjustments	(18)	90
Foreign exchange	(97)	77
Cash inflows and net other items	(435)	(369)
Total change in TotalCare net assets	**62**	**230**

IFRS 15

Group – impact of adopting IFRS 15

Group underlying results

2017 £m	Current accounting	IFRS 15
Revenue		
Civil Aerospace	8,023	**6,613**
Defence Aerospace	2,275	**2,282**
Power Systems	2,923	**2,919**
Marine	1,077	**1,075**
Nuclear	818	**818**
Other	(26)	**(25)**
Total revenue	15,090	**13,682**
Operating profit		
Civil Aerospace	520	**(330)**
Defence Aerospace	374	**370**
Power Systems	330	**331**
Marine	(25)	**(26)**
Nuclear	38	**38**
Other	(62)	**(62)**
Total operating profit	1,175	**321**

IFRS 15 overview

IFRS 15 *Revenue from Contracts with Customers* (effective from 1 January 2018) replaces the separate models for goods, services and construction contracts currently included in IAS 11 *Construction Contracts* and IAS 18 *Revenue*. The Group will present its 2018 results, including 2017 comparatives, on an IFRS 15 basis.

IFRS 15 impact

The impact of IFRS 15 on the 2017 underlying results is shown in the tables on this page with further information provided in notes 1 and 27 to the Consolidated Financial Statements. The cumulative impact on net assets as at 31 December 2017 is £(5.2)bn.

As processes and procedures are further embedded during 2018, it is possible that some changes to the impact may result. The adoption of IFRS 15 has had a significant impact on the measurement and the timing of recognition of revenue, most particularly in the Civil Aerospace business. It has no impact on the timing or measurement of the reported cash flows.

The key impacts of adopting IFRS 15 on our Civil Aerospace business are:

- generally, our contracts with airframers for OE and with operators for aftermarket services will not be linked;
- revenue for OE will be recorded at the net amount of consideration receivable with any profit or loss on sale, after recognition of the costs of producing the OE, recorded on delivery; and
- revenue on LTSAs will be recognised as services are performed rather than as the equipment is used as is frequently the case under the current accounting policy. The stage of completion will be measured using the actual costs incurred to date compared to the estimated costs to complete the performance obligation. As we are generally paid on a monthly basis as engine flying hours occur, whilst overhaul and repair activities happen periodically over the term of the LTSA, the recognition of revenue and profit will generally be deferred compared to the current accounting policy and to cash receipts.

In addition, the overall net impact on operating profit of the adoption of IFRS 15 within the Defence Aerospace business was £4m. This comprised a £34m LTSA margin impact which is broadly expected to recur in the short term, but was offset by a £30m favourable timing benefit from a spares distribution contract, which is not expected to repeat in 2018.

Civil Aerospace – impact of adopting IFRS 15

Civil Aerospace underlying income statement summary

2017 £m	Current accounting	IFRS 15	Difference
Underlying revenue	8,023	**6,613**	(1,410)
Underlying OE revenue	3,818	**2,905**	(913)
Underlying services revenue	4,205	**3,708**	(497)
Underlying gross profit	1,192	**381**	(811)
Gross margin	*14.9%*	***5.8%***	
R&D costs	(412)	**(451)**	(39)
Underlying operating profit/(loss)	520	**(330)**	(850)
Underlying operating margin %	*6.5%*	***(5.0)%***	

The following tables provide more detail on the impact of adopting IFRS 15 in Civil Aerospace. We have provided additional information about this business here as it is most significantly impacted by IFRS 15. A more detailed analysis of the impact of adopting IFRS 15 on the other segments are set out in note 27 to the Consolidated Financial Statements.

The adoption of IFRS 15 reduces Civil Aerospace underlying revenue and underlying operating profit by £1,410m and £850m respectively.

Underlying OE revenue reduces by £913m, primarily from de-linking the OE and service contracts and no longer capitalising cash deficits. In addition, participation fees paid to airframers are treated as a reduction to revenue where previously presented as a cost.

Underlying service revenue reduces by £497m. This reduction is driven by: a timing change to revenue recognition on TotalCare and CorporateCare long-term contracts where stage of completion has been amended from a flying hours basis to a cost incurred or 'input' basis; the de-linking of OE and services contracts; and classification of operator guarantee payments as a reduction to revenue under IFRS 15 where classified as costs under current accounting.

Underlying revenue by market segmentation under IFRS 15

The most significant changes to Civil Aerospace revenue from the adoption of IFRS 15 relate to large engine OE and long-term service contract revenue for both large and business aviation engines.

Large engine service revenue is £299m lower under IFRS 15. Under current accounting service revenue is recognised on an engine flying hour basis, i.e. as the engines are being used by the airline operators. The move to recognising revenue on an activity basis (i.e. when Civil Aerospace performs the repairs, maintenance and overhauls) changes the point at which revenue is recognised. This change will typically delay the point at which revenue is recognised under IFRS 15 when compared with the treatment under current accounting and as a result lowers service revenues due to the relatively young age of the fleet with many engines yet to reach their first overhaul.

The nature of the change is the same for CorporateCare service packages in business aviation. For business jet engines the timing impact may be more pronounced than for large engines as business jet engines are often on wing for many years before requiring an initial overhaul.

Civil Aerospace underlying revenue analysis

2017 £m	Current accounting	IFRS 15	Difference
Original equipment	3,818	**2,905**	(913)
Large engine	2,998	**2,104**	(894)
Business aviation	598	**582**	(16)
V2500	222	**219**	(3)
Services	4,205	**3,708**	(497)
Large engine	2,626	**2,327**	(299)
Business aviation	527	**396**	(131)
Regional	343	**277**	(66)
V2500	709	**708**	(1)

Contract accounting adjustments under IFRS 15

Under current accounting, the stage of completion of long-term service contracts is assessed based on flying hours. As set out on page 55, this means that the percentage of completion will usually be lower under IFRS 15 than under current accounting. For linked OE and service contracts, the stage of completion takes into account both OE and flying hour revenue. The consequence of this linkage with the services contract means that the difference between the completion percentage under IFRS 15 and current accounting will be greater. This is because the linked OE revenue is no longer included in assessing the stage of completion. This change in the way the percentage of completion is calculated will impact the level of contract accounting benefit recognised under current accounting in respect of beneficial lifecycle cost margin adjustments by £(96)m from £113m under current accounting to £17m under IFRS 15.

On the other hand, the contract margin adjustment associated with technical costs will be £50m lower under IFRS 15.

The benefit from other operational changes totalled £17m in 2017 under current accounting. This included a £77m benefit arising from a change to a customer credit rating risk assessment on a linked contract where under IFRS 15, with no linkage, there is no benefit in the year.

Contract accounting adjustments under IFRS 15

2017 £m	Current accounting	IFRS 15	Difference
Lifecycle cost improvements	113	17	(96)
Technical costs	(148)	(98)	50
Operational changes	17	(68)	(85)
Total contract accounting adjustments	(18)	(149)	(131)

Balance sheet adjustments under IFRS 15

The impact of adopting IFRS 15 on the Civil Aerospace balance sheet is summarised below.

£(5.1)bn of the £(5.2)bn impact to the Group's opening reserves from the adoption of IFRS 15 is driven by Civil Aerospace.

The transition to IFRS 15 requires de-recognition of the contractual aftermarket rights recorded as intangible assets under current accounting. As this cost will now be recorded at the point of sale of OE the amortisation previously recorded will cease benefiting the gross profit reported on underlying services revenue.

Under IFRS 15 we regard participation fees as payments to customers that are offset against future revenue from those customers. Therefore, they are recognised as contract assets rather than as intangible assets under current accounting.

In assessing the accounting for the participation fee payments we make to our OE customers, we have also assessed the accounting for up-front payments we sometimes receive from the Group's suppliers under RRSAs to allow them to participate in an engine programme. We have concluded that, consistent with changes to how we will account for participation fees noted above, these receipts should be deferred and recognised against cost of sales over the period of supply. This will also require judgement as to the number of units over which the receipts will be allocated.

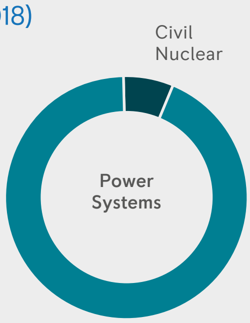
The most significant change is to the net contract balance. Other than the reclassification of participation fees and the transition from revenue recognition on an engine flying hours to a cost input basis, the adjustment also represents £(3.2)bn of reversal of profit from contract linkage. The majority of service contracts are on monthly payment terms based on engine flying hours. As a result, in many cases we will receive cash in advance of incurring costs to support the contract including for overhauls. Under IFRS 15 we will recognise the revenue as costs are incurred, changing the net contract debtor under current GAAP to a net deferred revenue creditor under IFRS 15.

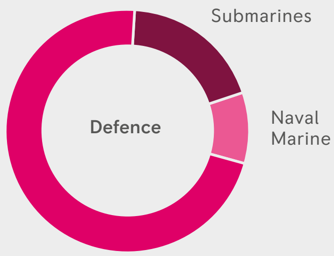
Balance sheet adjustments under IFRS 15

2017 £bn	Current accounting	IFRS 15	Difference
Contractual aftermarket rights	0.8	–	(0.8)
Participation fees - intangible	0.4	–	(0.4)
Participation fees - contract asset	–	0.4	0.4
Net contract debtor/(creditor)	2.5	(2.7)	(5.2)
Other	(0.6)	(0.3)	0.3
Risk and revenue sharing agreements (RRSAs)	(0.3)	(0.8)	(0.5)
Civil Aerospace net assets (pre-tax)	2.8	(3.4)	(6.2)
Tax			1.1
Civil Aerospace reserves impact (post-tax)			(5.1)

2018 Outlook

New core business units (from January 2018)





Civil Aerospace

Underlying revenue

2017 IFRS 15: £6,613m
2018 outlook: High single-digit growth

Underlying operating profit

2017 IFRS 15: £(330)m
2018 outlook: Losses reduce by up to a third

- Revenue growth from higher OE delivery volumes and services activity
- Higher services activity driving profit growth. Around £50m increased R&D capitalisation
- Increased cash flow from continued flying hour growth and further working capital improvements
- But higher deliveries of cash deficit OE engines albeit at lower unit losses
- Higher Trent 1000 and Trent 900 in-service costs

Power Systems

Underlying revenue

2017 IFRS 15: £3,106m
2018 outlook: High single-digit growth

Underlying operating profit

2017 IFRS 15: £319m
2018 outlook: Margins stable

- Continued recovery of naval, oil & gas, and construction & agriculture end markets
- Product mix towards lower margin mining and construction & agricultural products
- Higher R&D spend on alternative fuel solutions

Defence

Underlying revenue

2017 IFRS 15: £3,184m
2018 outlook: Stable

Underlying operating profit

2017 IFRS 15: £451m
2018 outlook: Margins around 250bps lower

- Headwinds from timing changes on export activity and in contract mix, higher investment to support new product development
- Expected non-repeat of £30m favourable timing benefit from the Aviall spares distribution contract

Group *

Underlying revenue

2017 IFRS 15: £13,682m
2018 outlook: Mid single-digit growth

Free cash flow (excluding. ITP Aero)

2017: £273m
2018 outlook: £450m +/- £100m

Underlying operating profit

2017 IFRS 15: £321m
2018 outlook: £400m +/– £100m

2018 outlook

We are confident 2018 will be a year of good progress. Organic revenue should grow mid-single digit, with underlying operating profit of around £400m excluding ITP Aero (around £450m including ITP Aero). Free cash flow should improve to around £450m excluding ITP Aero, (around £400m including ITP Aero). We are making solid progress with longer-term solutions for Trent 1000 and Trent 900 in-service issues, largely through re-designing affected parts, and we expect these to be fully embodied on the Trent 1000 fleet by 2022. On the Trent 900, an extended life turbine blade is already being rolled-out with further re-designs available from 2020. Based on our current estimates, in 2018 the anticipated annual cash impact is expected to broadly double and reach a peak. It is then expected to fall by around £100m in 2019. The majority of this work will be undertaken in 2018 and 2019 and is not expected to complete until 2022. All of these costs are included in our cash flow guidance for 2018 and beyond.

ITP Aero

Underlying revenue

2017 IFRS 15: €827m
2018 outlook: Double-digit growth

Underlying operating profit

2017 IFRS 15: €75m
2018 outlook: Modest decline

- Double-digit revenue growth driven by strong increase in delivery volumes on civil programmes
- Margin contraction driven by mix change. Lower volumes of higher margin defence engines with strong growth in less profitable civil engines
- Cash outflow (€70m-80m) as a result of investments and contributions to third party programmes. Cash flow expected to move closer to breakeven in 2019

* Group figures are after inclusion of commercial marine and other eliminations (2017: revenue £779m and loss (£119m)).

Principal Risks

Risk management

The Board is responsible for the Group's risk management system (RMS) and internal control systems.

Our RMS is designed to identify and manage, rather than eliminate, the risk of failure to achieve business objectives and to provide reasonable, but not absolute, assurance against material misstatement or loss.

We continue to build risk management into the way we work to help us to make better decisions. It is implemented through a mandated Group-wide risk management policy, including our process, software tools and governance structures. Our risk policy is supported by training and a team of experts. Businesses and functions are accountable for identifying and managing risks in line with this policy.

Business continuity plans are in place to mitigate continuity risks and there has continued to be regular testing of the adequacy of these plans through exercises at every level of our incident management framework.

Joint ventures constitute a large part of the Group's activities. Responsibility for risk and internal controls in joint ventures lies with the managers of those operations. We seek to exert influence over such joint ventures through board representation. Management and internal audit regularly review the activities of these joint ventures.

Improving our RMS

We have continued to enhance our RMS in 2017, including:

- updating our risk policy and actively communicating it to our employees;
- embedding risk assessment as part of key decision-making activities e.g. allocating capital investment;
- focusing on analysing root causes of risks or incidents and developing standard approaches for managing common risks;
- improving our risk appetite framework;
- conducting progressively more challenging crisis management team exercises based on our principal risks;
- strengthening our risk assurance capability to improve alignment of risk, control and assurance activities; and
- rolling out our risk visualisation tool into the businesses and functions to bring risk discussions to life and help management to focus on the most important risks.

In 2018, we will look to build on these improvements and continue to integrate risk management into the culture change and transformation programmes and key decision-making activities.

Principal risks

Our RMS is designed so that principal risks can be identified from multiple sources. Key bottom-up risks are identified by businesses and functions and the detail of risks that meet the Group threshold are subject to review and challenge by the ELT and the Board during their risk reviews.

The Board, assisted by the ELT, has carried out a robust assessment of the principal risks facing the Group, including undertaking a deep dive into each risk. Deep dives allow the Board to assess the effectiveness of management and mitigation of the risk, including consideration of the effectiveness of material internal controls. These reviews are supported by the ELT risk committee conducting in-depth reviews of related bottom-up key risks and the actions and controls in place to manage them.

Changes in principal risks

These ongoing reviews of risks and understanding of potential root causes has resulted in changes to the following principal risks compared to last year.

Major product programme delivery

Since last year, the level of risk for the major product programme delivery principal risk has increased. This is due to in-service issues that we have experienced with our Trent 1000 and Trent 900 engines (see page 24) and the resources required to mitigate the impact of these issues on our customers. The change in risk level also reflects the importance that successful delivery of major programmes has in generating cash to fund our refreshed strategy.

Product safety

As the Group continues to transform, the product failure principal risk has been re-defined and focuses specifically on the product safety aspects to ensure that ownership of this risk is clearly aligned to the changes in our engineering and technology functions – see page 42.

Political risk

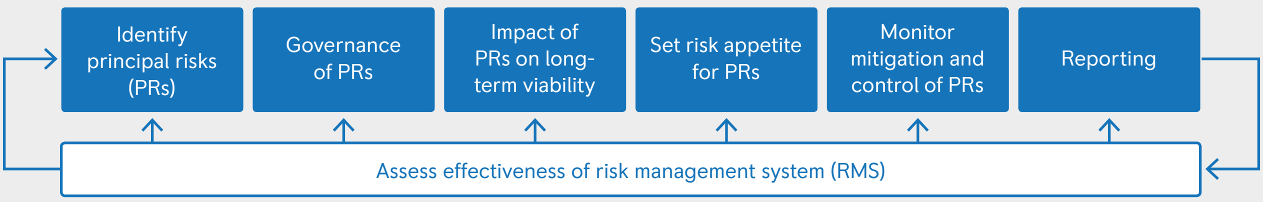
Our Brexit steering group has continued to assess potential impacts of leaving the EU, including uncertainties related to our principal risks. We have briefed the UK Government and other governments on our Brexit-related issues and have made representations through our trade association memberships.

While we wait for political certainty from the Brexit negotiations and details of the final Brexit deal, we have assessed potential additional operational impacts to understand what action Rolls-Royce might need to take before Brexit occurs in 2019.

We could be impacted through a number of routes. For example: our regulatory relationship with the EU (European Aviation Safety Agency; REACH chemical certification programme); our operational relationship (customs union and movement of people); our tax and treasury strategy; our EU R&T funding relationship and other interfaces. We are managing these risks through our operational assessment and applying our business continuity risk management process to Brexit.

Management of principal risks

Our risk framework ensures that risks are identified, managed and communicated throughout the Group.



Other changes

We are aware of the impact our products and operations have on the planet and the impact climate change may have on our business either directly or indirectly. To help readers understand where we see the biggest risks and in line with the Financial Stability Board (FSB) Taskforce on Climate-related Financial Disclosures (TCFD) we have updated our description of two principal risks: i) disruptive technologies and business models and ii) business continuity.

Risk management enables our strategy

1 Customer focus to rectify in-service issues, ramp up large engine production

2 Technology focus through product revitalisation, electrification and digitalisation

3 Resilience through adaptability with a spotlight on safety, diversity & inclusion, and the highest ethical standards

4 Financial progress delivering improving free cash flow, strengthening balance sheet, more disciplined capital allocation

Priorities for 2018 on page 9

Change in risk level

↑ Increased

↓ Decreased

<> Static

Principal risk or uncertainty and potential impact	How we manage it	Key controls	Change in risk level	2018 priorities
Disruptive technologies and business models Disruptive technologies, new entrants with alternative business models or disruptions to key markets or customers could reduce our ability to sustainably win future business, achieve operating results and realise future growth opportunities.	— Horizon and emerging technology scanning and understanding our competitors, including patent searches. — Investing in innovation and new technologies. — Focusing on enhancing our skills and capabilities to maintain our technology leadership. — Forming strategic partnerships and conducting joint research programmes. — Establishing our digital business. This principal risk is subject to review by the Science & Technology Committee.	— Strategic planning process — Investment review committee — Digital governance board — Research & technology board — Digital business development board	<>	2
Competitive position The presence of large, financially strong competitors in the majority of our markets means that the Group is susceptible to significant price pressure for original equipment or services even where our markets are mature or the competitors few. Our main competitors have access to significant government funding programmes as well as the ability to invest heavily in technology and industrial capability.	— Accessing and developing key technologies and service offerings which differentiate us competitively – see page 42. — Focusing on being responsive to our customers and improving the quality, delivery and reliability of our products and services. — Partnering with others effectively. — Driving down cost and improving margins. — Protecting credit lines. — Investing in innovation, manufacturing and production, and continuing governance of technology programmes – see page 111. — Maintaining a healthy balance sheet to enable access to cost-effective sources of third party funding. — Understanding our competitors. This principal risk is subject to review by the Board.	— Financial performance review — Strategic planning process — Investment review committee — Science & Technology Committee — Research & technology board	<>	3 4
Major product programme delivery Failure to deliver a major programme on time, within budget, to specification, or technical performance falling significantly short of customer expectations, or not delivering the planned business benefits, would have potentially significant adverse financial and reputational consequences, including the risk of impairment of the carrying value of the Group's intangible assets and the impact of potential litigation.	— Major programmes are subject to Board approval. — Reviewing major programmes at levels and frequencies appropriate to their criticality and performance, against key financial and non-financial deliverables and potential risks throughout the programmes lifecycle – see page 71. — Investing in facilities and people to minimise the level of disruption to our customers from Trent 1000 and Trent 900 in-service issues and developing longer-term solutions to these issues. — Conducting technical audits at pre-defined points which are performed by a team that is independent from the programme. — Requiring programmes to address the actions arising from reviews and audits and monitoring and controlling progress through to closure. — Applying knowledge management principles to provide benefit to current and future programmes. This principal risk is subject to review by the Board.	— Rolls-Royce management system — Operational performance review — Project assurance — Gated business and technical reviews — Quality compliance audit — Major quality investigations board	↑	1 4

Principal risk or uncertainty and potential impact	How we manage it	Key controls	Change in risk level	2018 priorities
Product safety The lives of people that our customers serve depend on the safety of our products wherever and whenever they operate them. Any failure to meet this expectation, or if our product causes significant environmental impact, would adversely affect our reputation and long term sustainability. [1]	– Ensuring a culture that puts safety first. – Applying our engineering design and validation process from initial design, through production and into service. – Reviewing the scope and effectiveness of the Group's product safety policies to ensure that they operate to the highest industry standards. – Operating a safety management system (SMS), governed by the product safety review board, and subject to continual improvement based on experience and industry best practice. Product safety training is an integral part of our SMS – see pages 104 to 107. – Improving our supply chain quality. This principal risk is subject to review by the Safety & Ethics Committee.	– Company product safety assurance board – Quality compliance audit – Engineering technical audit – Crisis management team – Environment and sustainability committee	<>	3 4
Talent and capability Inability to attract and retain the critical capabilities and skills needed in sufficient numbers to effectively organise, deploy and incentivise our people to deliver our strategies, business plans and projects.	– Attracting, rewarding and retaining the right people with the right skills globally in a planned and targeted way, including regular benchmarking of remuneration – see pages 46 and 47. – Developing and enhancing organisational, leadership, technical and functional capability to deliver global programmes. – Continuing a strong focus on individual development and succession planning. – Proactively monitoring retirement in key areas and actively managing the development and career paths of our people with a special focus on employees with the highest potential. – Embedding a lean, agile, high-performance culture that tightly aligns Group strategy with individual and team objectives. – Incentivising and effectively deploying the critical capabilities, skills and people needed to deliver our strategic priorities, plans and projects whilst implementing the Group's major programme to transform its business, to be resilient and to act with pace and simplicity. – Tracking engagement through our annual employee opinion survey and a commitment to drive year-on-year improvement to the employee experience and communications – see page 47. This principal risk is subject to review by the Nominations & Governance Committee.	– Remuneration Committee – ELT – Senior leadership team – HR executive team	<>	1 2 3 4
Business continuity Breakdown of external supply chain or internal facilities that could be caused by destruction of key facilities, natural disaster (including those caused by climate change), regional conflict, financial insolvency of a critical supplier or scarcity of materials which would reduce the ability to meet customer commitments, win future business or achieve operational results.	– Continuing our investment in adequate capacity and modern equipment and facilities. – Identifying and assessing points of weakness in our internal and external supply chain, our IT systems and the skills of our people. – Selecting stronger suppliers, developing dual sources or dual capability. – Ensuring our suppliers are aware of the 2018 REACH deadline and conducting research on alternative materials. – Crisis management exercises and testing site-level incident management and business recovery plans. – Providing improved response to supply chain disruption through customer excellence centres. This principal risk is subject to review by the Audit Committee.	– Crisis management team – Major incidents board – Quality board and process councils – Operations and IT executive – Supplier audit – Environment & sustainability committee	<>	1 4
IT vulnerability Breach of cyber security causing controlled or critical data to be lost, made inaccessible, corrupted or accessed by unauthorised users.	– Implementing 'defence in depth' through deployment of multiple layers of software and processes including web gateways, filtering, firewalls, intrusion, advanced persistent threat detectors and integrated reporting – see page 101. – Running security and network operations centres. – Actively sharing cyber security information through industry, government and security forums. This principal risk is subject to review by the Audit Committee.	– Operations and IT executive – IT security management – Crisis management team	<>	1 2 4

[1] Redefined from product failure – see page 59.

Principal risk or uncertainty and potential impact	How we manage it	Key controls	Change in risk level	2018 priorities
Market and financial shock The Group is exposed to a number of market risks, some of which are of a macro-economic nature (e.g. foreign currency, oil price, rates) and some of which are more specific to the Group (e.g. liquidity and credit risks, reduction in air travel or disruption to other customer operations). Significant extraneous market events could also materially damage the Group's competitiveness and/or creditworthiness. This would affect operational results or the outcomes of financial transactions.	— Maintaining a strong balance sheet, through managing cash balances and debt levels – see page 19. — Providing financial flexibility by maintaining high levels of liquidity and an investment grade credit rating. — Sustaining a balanced portfolio through earning revenue both from the sale of original equipment and aftermarket services, providing a broad product range and addressing diverse markets that have differing business cycles – see page 11. — Deciding where and what currencies to source in, and where and how much credit risk is extended or taken. The Group has a number of treasury policies that are designed to hedge residual risks using financial derivatives (foreign exchange, interest rates and commodity price risk). — Review debt financing and hedging in light of volatility in external financial markets caused by external events, such as Brexit or other geopolitical changes. This principal risk is subject to review by the Audit Committee.	— Financial performance review — Financial risk committee — Operational performance review — Group finance, treasury and tax teams		4
Political risk Geopolitical factors that lead to an unfavourable business climate and significant tensions between major trading parties or blocs which could impact the Group's operations. Examples include: explicit trade protectionism, differing tax or regulatory regimes, potential for conflict or broader political issues.	— Where possible, locating our facilities and supply chain in countries with a low level of political risk and/or ensuring that we maintain dual capability. — Diversifying global operations to avoid excessive concentration of risks in particular areas. — The Group's businesses and its strategic marketing network proactively monitoring local situations. — Maintaining a balanced business portfolio with high barriers to entry and a diverse customer base – see page 58. — Proactively influencing regulation where it affects us. — Steering committee to co-ordinate activities across the Group and minimise the impact of Brexit – see page 59. This principal risk is subject to review by the Board.	— Government relations and Group tax teams — Strategic planning process — Supplier audit	↑	1 2 3 4
Compliance Non-compliance by the Group with legislation, the terms of the deferred prosecution agreements or other regulatory requirements in the heavily regulated environment in which it operates (e.g. export controls; use of controlled chemicals and substances; and anti-bribery and corruption legislation) compromising the ability to conduct business in certain jurisdictions and exposing the Group to potential: reputational damage; financial penalties; debarment from government contracts for a period of time; and/or suspension of export privileges (including export credit financing), each of which could have a material adverse effect.	— Taking an uncompromising approach to compliance. — Operating an extensive compliance programme. This programme and the Global Code of Conduct are disseminated throughout the Group and are updated from time to time to ensure their continued relevance, and to ensure that they are complied with, both in spirit and to the letter. The Global Code of Conduct and the Group's compliance programme are supported by appropriate training – see page 49. — Strengthening of the ethics, anti-bribery and corruption, compliance and export control teams. — A legal team is in place to manage any ongoing regulatory investigations. — Engaging with external regulatory authorities. — Implementing a comprehensive REACH compliance programme. This includes ensuring that we and our supply chain are covered by REACH authorisations for a number of chemicals needed for our products, establishing appropriate data systems and processes and working with our suppliers, customers and trade associations. This principal risk is subject to review by the Safety & Ethics Committee.	— Corporate governance framework — Compliance and export control teams — Group Secretariat — Legal team		3 4

Going Concern and Viability Statements

Introduction

Rolls-Royce operates an annual planning process. Our plans and risks to their achievement are reviewed by the Board and once approved are cascaded throughout the Group and are used as the basis for monitoring our performance, incentivising employees and providing external guidance to our shareholders.

The processes for identifying and managing the principal risks are described on pages 59 and 60. As also described there, the risk management process, and the going concern and viability statements, are designed to provide reasonable, but not absolute, assurance.

Going concern

The going concern assessment considers whether it is appropriate to prepare the financial statements on a going concern basis.

As described on page 197, the Group meets its funding requirements through a mixture of shareholders' funds, bank borrowings, bonds and notes. At 31 December 2017, the Group had borrowing facilities of £5.4bn and total liquidity of £5.1bn, including cash and cash equivalents of £3.0bn and undrawn facilities of £2.1bn. £82m of the facilities mature in 2018.

The Group's forecasts and projections, taking into account reasonably possible changes in trading performance, show that the Group has sufficient financial resources. The Directors have reasonable expectations that the Company and the Group are well placed to manage business risks and to continue in operational existence for the foreseeable future (which accounting standards require to be at least a year from the date of this report) and have not identified any material uncertainties to the Company's and the Group's ability to do so.

On the basis described above, the Directors consider it appropriate to adopt the going concern basis in preparing the Consolidated Financial Statements (in accordance with the Guidance on Risk Management, Internal Control and Related Financial and Business Reporting published by the FRC in September 2014).

Viability

The viability assessment considers solvency and liquidity over a longer period than the going concern assessment. Consistent with previous years, we have assessed our viability over a five-year period. Inevitably, the degree of certainty reduces over this longer period.

In making the assessment, severe but plausible scenarios have been considered that estimate the potential impact of the principal risks arising over the assessment period, for example: the loss of a key element of the supply chain; the impact on aircraft travel of a global pandemic; worsening or new in-service issues on new Civil Aerospace programmes (the base cash flow forecasts include the estimated future costs resulting from Trent 900 and Trent 1000 in-service issues described on page 24); or, the impact of a political risk such as Brexit on the Group (see page 59 for further information on the process we are taking to manage the risks related to Brexit).

The scenarios assume an appropriate management response to the specific event, but not broader mitigating actions which could be undertaken, which have been considered separately. The cash flow impacts of these scenarios were overlaid on the five-year forecast to assess how the Group's liquidity and solvency would be affected.

The assessment took account of the Group's current funding, forecast requirements and existing committed borrowing facilities. It assumed that existing facilities could be refinanced as they mature.

On the basis described above, the Board confirms that it has a reasonable expectation that the Company will be able to continue in operation and meet its liabilities as they fall due over the next five years.

In making this statement, the Directors have made the following key assumptions:

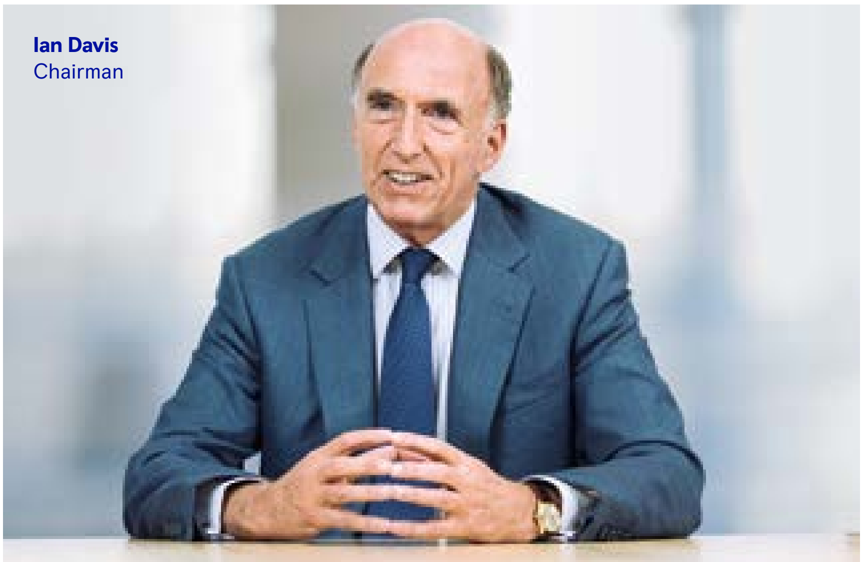
- that maturing facilities will be refinanced. The Group currently has access to global debt markets and expects to be able to refinance these facilities on commercially acceptable terms. The Group's medium and long-term financing plans are designed to allow for periods of adverse conditions in world capital markets but not a prolonged (e.g. 12 month) period where debt markets were effectively closed to the Group;
- that in the event of one or more risks occurring, which has a particularly severe effect on the Group, all potential actions, such as constraining capital spending and reducing or suspending payments to shareholders, would be taken on a timely basis. The Group believes it has the early warning mechanisms to identify the need for such actions and the ability to implement them on a timely basis if necessary; and
- that implausible scenarios, whether involving multiple risks occurring at the same time or the impact of individual risks occurring that cannot be mitigated by management actions to the degree assumed, do not occur.

Signed on behalf of the Board

Warren East
Chief Executive

06 March 2018

Chairman's Introduction to Directors' Report



Introduction

As I consider our approach to governance at Rolls-Royce, and reflect on the activities of the Board during 2017, I am pleased with the progress we are making. We have been undertaking some interesting and, at times, experimental initiatives designed to ensure the Board maintains an awareness and appreciation of the perspectives of our key stakeholder groups as we help to shape the Group's direction and strategy.

The Board and I were deeply saddened by the death of two colleagues in separate work-related incidents during the year. These tragic events reinforce the importance of health and safety across all that we do. We were also extremely sad to learn of the death of Dame Helen Alexander, a former Non-Executive Director of the Company and close colleague. Helen will be greatly missed by many, and she leaves behind a legacy and contribution to the advancement of corporate governance, notably in her work on the promotion of gender diversity.

In light of the operational challenges faced by the Civil Aerospace business, the Board remained regularly informed on the management of these issues including: conflicting demands on resource; the handling of impacted customers' interests; and the management of the resultant programme risks. As well as briefings from the Chief Executive, the Board also heard from the President – Civil Aerospace and members of his team throughout the year with updates on the latest developments.

Employee engagement

Employees and the Board were deeply disappointed by the business conduct that led to the announcement in January 2017 that the Group had entered into deferred prosecution agreements (DPAs) with the UK Serious Fraud Office and other authorities. We have continued to strengthen and embed ethics and compliance procedures across the Group. Our continuing ethics training and Code of Conduct clarify the responsibilities which apply to all Rolls-Royce employees. The Board remains committed to this programme as we believe that the right behaviours and culture will deliver enhanced long-term performance.

We encourage an honest, open and direct dialogue with our employees and their representatives. This led us to introduce two new initiatives to strengthen our employee engagement programme. The Meet the Board event in May was tremendously engaging and positively received. We also selected Irene Dorner as our Board employee champion. Irene has taken the lead in strengthening links between the Board and our employees, who are key stakeholders in the Group's future success. You can read more about these initiatives on page 73 and in Irene's introduction opposite.

For more information on employee engagement see People on page 46.

Sustainability

Investment in our people and communities remains a key priority for the Board. During 2017, we maintained active graduate and apprenticeship development programmes and are proactively working to increase the number of women at all levels within Rolls-Royce. We are engaging with communities on an international basis through our research partnerships and STEM (science, technology, engineering and mathematics) programmes. As one of the world's leading industrial technology companies, we recognise we have an important role in addressing the risks and opportunities associated with climate change through our engineering expertise and operational strategy. See pages 44 and 45 for further information and pages 104 to 109 for the Safety & Ethics Committee Report.

Board apprentice programme

I am particularly proud that in 2017 we launched a new Board apprentice programme that provides coaching and board experience to a diverse group of emerging leaders selected from the Group's talent pool, each assigned to a Board or executive committee. This direct involvement in nurturing leadership talent is proving to be very rewarding for all participants, as well as serving to support diversity and our succession pipeline. See more on page 81.

Board developments

We welcomed two new Directors during 2017, as mentioned in the Nominations & Governance Committee Report on page 81. Beverly Goulet was appointed to the Board in July 2017 and joined the Nominations & Governance and Audit Committees. Beverly has 24 years' experience in the US airline industry and will enhance our customer perspective on the Board. To ensure strong executive leadership was in place at an important juncture for the Group as we refreshed our vision and strategy, Stephen Daintith joined the Board as Chief Financial Officer in April 2017 as previously announced.

In February 2018 it was announced that Nick Luff had been appointed to join the Board as a Non-Executive Director with effect from the conclusion of the AGM in May 2018, subject to shareholder approval.

During the year we renewed the terms of appointment for Ruth Cairnie, Lewis Booth and Sir Frank Chapman each for a further three-year term. In February 2018, we also agreed to extend Brad Singer's initial two-year appointment for a further three years. All Directors will stand for re-election at the AGM in May 2018. The Company and Brad Singer are party to a relationship agreement with ValueAct (a summary of which can be found at www.rolls-royce.com). The agreement will expire on 3 May 2018 but will be replaced with a new agreement covering treatment of confidential information and conflicts of interest only.

The Board has a diverse membership with varied and balanced experience and skills that are highly relevant to the Group's needs and challenges. We recognise that the Directors need to remain mindful of their duties to consider the interests of key stakeholders. We received training from the Company Secretary on our duties under the Companies Act 2006, of particular importance for those Board members who do not hold directorships at other UK companies, and a useful refresher for the other Directors. The Board also resolved in December to adopt our Board diversity policy which sets a target of a minimum of one third of women on the Board. See page 82 to read more.

More detail on the changes to the Board is set out in the Nominations & Governance Committee Report on page 81.

Stakeholder engagement

We set out to actively capture our stakeholders' views in a number of ways this year. As well as our employee engagement activities, we invited some of our Civil Aerospace customers to present to the Board and provide their views on what it is like to work with Rolls-Royce. The direct and open feedback was appreciated and helped our understanding of what is working well and which areas need more focus.

We benefit from having Brad Singer on the Board. He is able to provide an investor perspective drawing on his experience as chief operating officer of ValueAct, the Group's largest shareholder. To remain alert to the views of our wider shareholder base, in March 2017 we held the second of our governance events for fund managers and governance analysts. We also undertook an open and meaningful shareholder consultation exercise on our remuneration policy, approved with a majority of over 95% at the AGM in May 2017.

You can read about our stakeholder engagement activities on page 73.

Looking forward

The Board remains strongly committed to continuous improvement in governance. We actively reviewed and responded to the FRC's consultation to the UK Corporate Governance Code.

Areas we intend to focus on in 2018 include Brexit, health and safety, cyber security and sustainability. We will be monitoring developments in best practice and I look forward to continuing a progressive and innovative approach to governance in the year ahead.

Ian Davis
Chairman

IRENE DORNER, EMPLOYEE CHAMPION

Experiments are almost always by their very nature exciting and kicking off the employee champion activities has been no exception. I think it is important to get around the Group and see as many different cohorts of people in order to get a broad range of views. This presents challenges in itself and we have experimented with a variety of events, some more formal than others. I have attended dedicated sessions in theatre style, gatecrashed already existing meetings and piggy-backed on other events. I hosted an online discussion with employees that was particularly rewarding because it allowed for a free flow of conversation across many sites on many subjects.

What has marked all of these events has been the openness of our people and their willingness to raise issues. Often there is simply a real curiosity to understand what the Board does, but equally we have had open discussions about: connecting the Rolls-Royce vision more closely to our employees; diversity and inclusion; working methods; career development; the effectiveness of the employee opinion survey; the role of employee representatives; transformation; and culture and communications.

I have been ably assisted by the formation of an employee stakeholder engagement group where we can discuss what we have learnt and plan our next moves.

I have reported back to the Board and continue to have open dialogues with various employees around Rolls-Royce who have attended a session and have been motivated to take action on an issue which has particularly engaged them.

Future plans will include visiting our overseas sites. Recognising that the engagement in 2017 was primarily UK-focused, we will find ways to reach a wider audience and to bring their views in an organised manner to the Board and the heart of the organisation.

2017 was a foundational year on which we can build and learn how to do this better. I have no doubt that this initiative will evolve and offer opportunities for change for individuals and Rolls-Royce.

Irene Dorner
Non-Executive Director

Board of Directors

Ian Davis
Chairman of the Board and Chairman, Nominations & Governance Committee

NG

Appointed to the Board in March 2013 and as Chairman in May 2013. Tenure: 5 years

Career, skills and experience
Ian was a partner at McKinsey for 31 years and served as chairman and worldwide managing director. He brings significant financial and strategic experience and has worked with and advised global organisations and companies, enabling him to draw on knowledge of diverse issues and outcomes to assist the Board.

Other principal roles
— BP p.l.c., senior independent director
— Johnson & Johnson Inc., director
— McKinsey & Company, senior partner emeritus

Warren East CBE
Chief Executive Officer

Appointed to the Board in January 2014 and as Chief Executive in July 2015. Tenure: 4 years

Career, skills and experience
Warren is an engineer and joined ARM Holdings plc in 1994 where he served as CEO from 2001 until 2013. He has a deep understanding of technology and has proven strategic and leadership skills in a global business. He is a fellow of the Institute of Engineering and Technology; the Royal Academy of Engineering; the Royal Society; and of the Royal Aeronautical Society. He was awarded a CBE in 2014 for services to the technology industry.

Other principal roles
— Dyson James Group Limited, director

Stephen Daintith
Chief Financial Officer

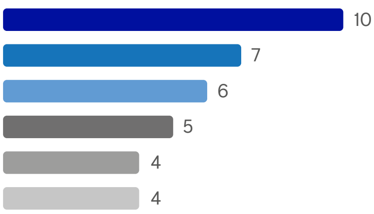
Appointed in April 2017. Tenure: less than 1 year

Career, skills and experience
Stephen trained and qualified as a member of the ICAEW with PwC and has considerable financial expertise. His previous roles include CFO of Daily Mail and General Trust plc from January 2011 to April 2017. He worked in New York as the CFO and COO of Dow Jones and in London as the CFO of News International, both part of News Corporation. He also previously held several executive positions at British American Tobacco.

Other principal roles
— 3i Group plc, non-executive director

Note: Tenures are stated as at 6 March 2018.

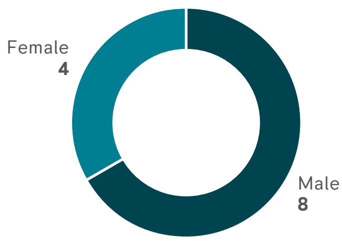
Board skills and experience



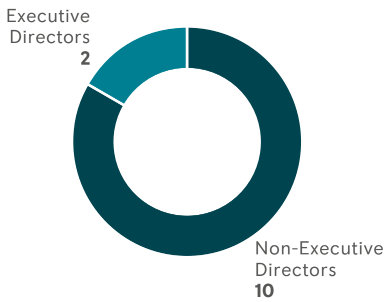
Number of Directors with:
- Chairman/CEO/CFO experience
- Related industry/operational
- Financial
- Engineering/technology
- Safety/regulatory/risk
- Remuneration/HR

Key
- NG Nominations & Governance Committee
- A Audit Committee
- R Remuneration Committee
- SE Safety & Ethics Committee
- ST Science & Technology Committee

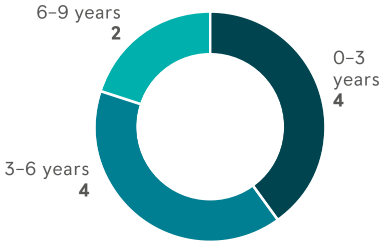
Board members by gender



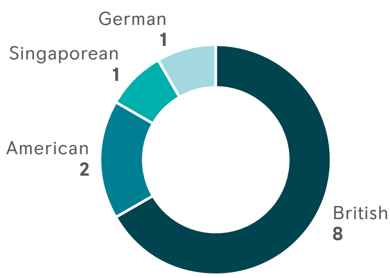
Balance of the Board



Non-Executive Directors' tenure



Board members by nationality *



Full Director's biographies can be found at: www.rolls-royce.com

* According to the Company's Articles of Association, at least 50% of its Directors must be British citizens.

Lewis Booth CBE
Independent Non-Executive Director
Chairman, Audit Committee

NG A R

Appointed in May 2011. Tenure: 6 years

Career, skills and experience
Lewis has considerable financial expertise and experience and brings an international perspective from his 42-year career in the motor industry. After gaining a bachelor of engineering degree with honours in mechanical engineering, Lewis began his career with British Leyland. He spent 34 years at Ford Motor Company including as executive vice president and CFO. He was awarded a CBE in 2012 for services to the UK automotive and manufacturing industries.

Other principal roles
- Mondelez International Inc., director
- Gentherm Inc., director

Ruth Cairnie
Independent Non-Executive Director
Chairman, Remuneration Committee

NG R ST

Appointed in September 2014. Tenure: 3 years

Career, skills and experience
A physicist by background, Ruth has strong strategic and commercial experience gained at Royal Dutch Shell Plc where she held a number of senior international roles, including executive vice president strategy and planning. Ruth has significant remuneration committee experience having chaired the remuneration committee at Keller Group plc from April 2012 to May 2017 and has been a member of the remuneration committee at Associated British Foods plc since 2014.

Other principal roles
- Associated British Foods plc, non-executive director
- ContourGlobal plc, non-executive director
- POWERful Women, industry chair

Sir Frank Chapman
Independent Non-Executive Director
Chairman, Safety & Ethics Committee

NG R SE

Appointed in November 2011. Tenure: 6 years

Career, skills and experience
Sir Frank has significant industrial and safety experience, having worked in the oil & gas industry for 38 years including appointments within Royal Dutch Shell plc and BP p.l.c. He has a life-long passion for engineering and innovation and a deep understanding of technology. He was chief executive of BG Group plc for 12 years and chairman of Golar LNG Ltd. Sir Frank is a fellow of the Royal Academy of Engineering, the Institute of Mechanical Engineers and the Energy Institute. He was knighted in 2011 for services to the oil & gas industry.

Other principal roles
- Myeloma UK, vice chairman

Irene Dorner
Independent Non-Executive Director

NG A SE

Appointed in July 2015. Tenure: 2 years

Career, skills and experience
Irene was CEO and president of HSBC, US until December 2014. Her background in risk management played a key role in strengthening the financial institution's risk processes and she brings this insight as part of her role on our Audit Committee. During a 30-year career at HSBC, she held a number of international roles including leading HSBC in Malaysia. Irene was a consultant at PwC, is an honorary fellow of St Anne's College, Oxford and a passionate advocate of diversity and inclusion.

Other principal roles
- AXA SA, director
- Control Risks Group Holdings Limited, chairman
- Virgin Money Holdings (UK) PLC, chair elect and non-executive director

Beverly Goulet
Independent Non-Executive Director

NG A

Appointed in July 2017. Tenure: less than 1 year

Career, skills and experience
Beverly, a US national, started her career as a securities and M&A lawyer and has spent a considerable amount of her career in the airline industry. From 1993 until June 2017, Beverly was a key member of the executive team of American Airlines where she served in a number of senior roles. Beverly brings valuable operational experience with significant knowledge of corporate finance and treasury matters.

Other principal roles
- Xenia Hotels & Resorts, director
- Dallas Women's Foundation, board member
- Rolls-Royce North America Holdings, Inc., board member

Lee Hsien Yang
Independent Non-Executive Director

NG A SE

Appointed in January 2014. Tenure: 4 years

Career, skills and experience
A Singaporean, Hsien Yang was formerly a member of our international advisory board and combines a strong background in engineering with extensive international business experience. He was chief executive of Singapore Telecommunications Limited for 12 years and served as chairman and non-executive director of Fraser and Neave Limited. He has significant industrial and financial skills.

Other principal roles
- Civil Aviation Authority of Singapore, chairman
- General Atlantic LLC and associated funds, special adviser
- The Islamic Bank of Asia Private Limited, chairman

Bradley Singer
Non-Independent Non-Executive Director

ST

Appointed in March 2016. Tenure: 2 years

Career, skills and experience
Bradley, a US national, has an outstanding record as a business leader. He brings experience of public companies during periods of change, growth and significant financial outperformance, particularly in the US. He has been senior executive vice president and CFO of Discovery Communications, Inc. and CFO and treasurer of American Tower Corp. Before these appointments, he worked as an investment banker at Goldman Sachs. He provides an investor perspective drawing on his experience as COO of ValueAct.

Other principal roles
— ValueAct Capital, partner and chief operating officer
— The Posse Foundation, director
— McIntire School Foundation, University of Virginia, trustee

Sir Kevin Smith CBE
Senior Independent Non-Executive Director
Chairman, Science & Technology Committee

NG R ST

Appointed in November 2015. Tenure: 2 years

Career, skills and experience
Sir Kevin has extensive industrial leadership experience and a deep knowledge of global engineering and manufacturing businesses, as well as the aerospace industry. He was CEO of GKN plc for nine years. Before joining GKN, he spent nearly 20 years with BAE Systems in a number of senior executive positions. He has an honorary fellowship doctorate from Cranfield University and is an honorary fellow of the University of Central Lancashire. He was awarded a CBE in 1997 and knighted in 2006 for services to industry.

Other principal roles
— Unitas Capital, senior adviser
— L.E.K. Consulting, European advisory board member
— University of Central Lancaster, industry steering group member

Jasmin Staiblin
Independent Non-Executive Director

NG ST

Appointed in May 2012. Tenure: 5 years

Career, skills and experience
A German national, Jasmin combines a strong background in advanced engineering and deep technology knowledge with extensive international business experience, having lived and worked in Switzerland, Sweden and Australia. She has been the CEO of Alpiq Holding AG since 2013. She held a number of senior positions in the ABB Group becoming CEO of ABB Switzerland from 2006 until 2012.

Other principal roles
— Alpiq Holding AG, chief executive officer
— Georg Fischer AG, board member

Pamela Coles
Company Secretary

Appointed in October 2014.

Career, skills and experience
Pamela is an expert in corporate governance and company law. She has been a fellow of ICSA: The Governance Institute, since 1997. She joined Rolls-Royce from Centrica plc, where she was head of secretariat. Pamela's previous roles also include group company secretary and a member of the executive committee at The Rank Group plc and company secretary and head of legal at RAC plc.

Other principal roles
— E-ACT, non-executive director

Board committee membership

	NG	A	R	SE	ST
Ian Davis	C				
Lewis Booth	■	C	■		
Ruth Cairnie	■		C		■
Sir Frank Chapman	■		■	C	
Irene Dorner	■	■		■	
Beverly Goulet	■	■			
Lee Hsien Yang	■	■		■	
Bradley Singer					■
Sir Kevin Smith	■		■		C
Jasmin Staiblin	■				■

Key
NG Nominations & Governance Committee
A Audit Committee
R Remuneration Committee
SE Safety & Ethics Committee
ST Science & Technology Committee
C Denotes chairman of committee

Corporate Governance

The Board

The role of the Board

The Board is ultimately responsible to shareholders for the direction, management, performance and long-term success of the Company. It sets the Group's strategy and objectives and oversees and monitors internal controls, risk management, principal risks, governance and viability of the Company. In doing so, the Directors comply with their duties under section 172 Companies Act 2006.

The Board has established certain principal committees to assist it in fulfilling its oversight responsibilities, providing dedicated focus on particular areas, as set out below. Each committee chairman reports to the Board on the committee's activities after each committee meeting.

In addition to the Board's principal committees, it has established a sub-committee of Directors who each hold an appropriate level of UK national security clearance for the purpose of receiving and considering, on behalf of the Board, any UK classified information relating to the Group's programmes and activities. Beverly Goulet, a US national and independent Non-Executive Director, also sits on the board of Rolls-Royce North America Holdings, Inc. to create a link between the Board and the Group's North American governance structure.

Key matters reserved to the Board

- The Group's long-term objectives, strategy and risk appetite
- The Group's organisation and capability
- Shareholder engagement and general meetings
- Overall corporate governance arrangements including Board and committee composition, committee terms of reference, Directors' independence and conflicts of interest
- Internal controls, governance and risk management frameworks
- Changes to the corporate or capital structure of the Company
- Annual report and accounts, and financial and regulatory announcements
- Significant changes in accounting policies or practices
- Annual budgets and financial expenditure and commitments above levels set by the Board
- Remuneration policy and remuneration of Directors and senior executives

The Board committees

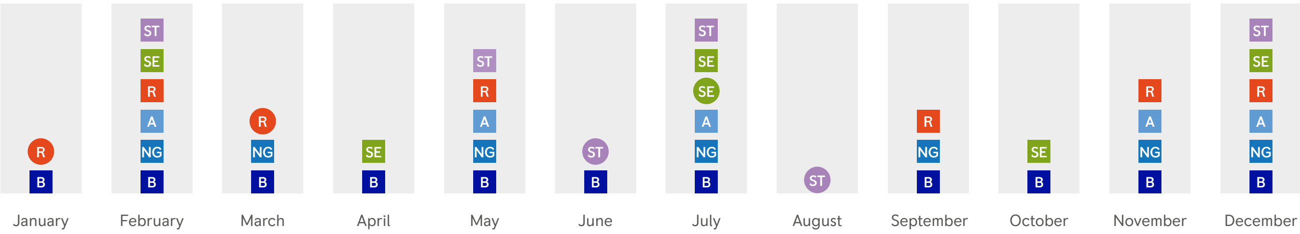
Nominations & Governance Committee	Audit Committee	Remuneration Committee	Safety & Ethics Committee	Science & Technology Committee
Board & committee composition	Financial reporting	Remuneration policy	Product safety	Technology strategy
Board nominations	Internal controls & risk management	Incentive design and setting of targets	HSE	Cross-sector technology
Succession planning	Internal audit	Executive remuneration review	Sustainability	Technology capabilities and skills
Corporate governance	External auditor		Ethics & compliance	Technology trends and risks
Oversight of principal risk – talent & capability	Oversight of principal risks – IT vulnerability, business continuity, market & financial shock		Oversight of principal risks – compliance, product safety	Oversight of principal risk – disruptive technologies & business models

Executive leadership team (ELT)

Matters that are not reserved to shareholders, the Board or one of the Board committees are the responsibility of the Chief Executive who has established and maintains a schedule of delegations of authority to members of the ELT and other management.

The ELT is an executive-level forum of the Group's most senior leaders, chaired by the Chief Executive. It comes together to communicate, review and agree on issues and actions of Group-wide significance. It helps to develop, implement and monitor strategic and operational plans, considers the continuing applicability, appropriateness and impact of risks, leads the Group's culture and aids the decision-making of the Chief Executive in managing the business in the performance of his duties. See rolls-royce.com for details of the ELT members.

Board and committee meetings held in 2017



Key

B Board
NG Nominations & Governance Committee
A Audit Committee
R Remuneration Committee
SE Safety & Ethics Committee
ST Science & Technology Committee
R SE ST Denotes unscheduled meeting

Unscheduled meetings

The unscheduled meetings of the Remuneration Committee in January and March were to discuss 2017 bonus plan targets.

Two additional Science & Technology Committee calls were held, the first in June for the Committee to debrief on the site visits that took place in May, and the second in August to help shape the technology strategy presentation for the Board strategy meeting.

The unscheduled meeting of the Safety & Ethics Committee in July was to receive an update on the latest discussions and developments with certain regulators following the DPAs.

Non-attendance

Some Board members were unable to participate in certain Board and Committee meetings due to these being held on short notice or for medical reasons, as noted in the table below. If any Directors are unable to attend a meeting they communicate their opinions and comments on the matters to be considered via the Chairman of the Board or the relevant committee chairman.

Board and committee members and attendance at meetings in 2017

	Board (11 meetings)	Nominations & Governance (7 meetings)	Audit (5 meetings)	Remuneration (7 meetings)	Safety & Ethics (6 meetings)	Science & Technology (6 meetings)
Ian Davis	11/11	7/7				
Warren East	11/11					
Stephen Daintith (appointed 7 April 2017)	8/8					
Lewis Booth [1]	11/11	7/7	5/5	5/5		1/1
Ruth Cairnie	11/11	7/7		7/7		6/6
Sir Frank Chapman [2]	10/11	6/7		6/7	5/6	
Irene Dorner	11/11	7/7	5/5		6/6	
Beverly Goulet (appointed 3 July 2017)	5/5	4/4	3/3			
Lee Hsien Yang [3]	10/11	7/7	5/5		6/6	
Brad Singer	11/11					6/6
Sir Kevin Smith [4]	10/11	6/7		6/7		6/6
Jasmin Staiblin [5]	11/11	7/7				5/6
Former Directors						
David Smith (stepped down on 24 February 2017)	2/2					
Colin Smith (stepped down on 4 May 2017)	5/5					
John McAdam (stepped down on 4 May 2017)	5/5	3/3		4/4	2/2	

[1] Lewis Booth was appointed to the Remuneration Committee and stepped down from the Science & Technology Committee in April 2017.
[2] Sir Frank Chapman was unable to attend the Safety & Ethics Committee in April due to unforeseen circumstances and the May meetings of the Board and committees due to medical reasons.
[3] Lee Hsien Yang was unable to attend the June Board meeting due to unforeseen urgent personal matters.
[4] Sir Kevin Smith was unable to attend the November meetings of the Board and committees due to medical reasons.
[5] Jasmin Staiblin was unable to attend the unscheduled meeting of the Science & Technology Committee in August due to prior commitments and this being arranged on short notice.

Board's focus during the year

Area of focus	Matters considered	Outcome
Strategy and risk	Review and refresh the Group's vision and strategy	The Board approved the refreshed vision and strategy for the Group, rolled out internally and externally from early 2018. The Board held an all-day meeting with the ELT focused on the Group's overarching strategy, including discussions on all areas of the business and people capability. The Board provided reflections on the day at the subsequent Board meeting. Feedback and content of discussions were shared with the ELT and businesses.
	Review of principal risks, including 'deep dives' on: — political risk; — competitive position; and — major product programme delivery	The ongoing review of risks resulted in changes to principal risks in the year. The product failure risk was redefined as product safety. The description of the disruptive technologies and business models and business continuity principal risks were updated to reflect the TCFD recommendations (see page 60). The Board confirmed that the management of risks remained effective. Lord Powell, after obtaining input from other members of the international advisory board (IAB) [1], presented on political risk in March 2017, including: the implications of Brexit; potential military conflicts; and current geo-political factors for the Group. The Board considered the Group's competitive position as part of its strategy sessions in September, and separately reviewed the competitive positions of Power Systems and Marine. The Board reviewed the risks to delivery of Civil Aerospace widebody engine programmes periodically throughout the year with a detailed review of Trent 900 and Trent XWB business plan performance in December, leading into a detailed review of Trent 1000 business plan in 2018.
	Ongoing cooperation with regulators following deferred prosecution agreements (DPAs)	The Board kept oversight of compliance with the DPAs. Lord Gold provided an update on his continuing areas of focus to the Board in March 2017.
Succession and leadership	Diversity and inclusion	There is a continuing focus to increase diversity throughout the Group. The Board diversity policy was presented in November and approved in December 2017. The Board confirmed its support for the Group's updated diversity and inclusion policies and the introduction of Group targets to increase the percentage of roles held by women and other under-represented groups across the Group. During 2017, a number of significant projects were completed and key milestones reached. See page 47 for more details.
	Effectiveness of the Board, Chairman and Chief Executive	An external evaluation was undertaken and it concluded that the Board operated effectively in 2017. The Chairman and Chief Executive received constructive feedback on their respective performance.
Financial performance	Review of financial KPIs	The Board obtained monthly financial performance reports and discussed the reports with the Chief Financial Officer at each Board meeting.
	Group tax policy review	The Board noted that new UK tax rules would require the Group to publish its tax strategy on the website during 2017. The Board approved and endorsed the approach.
	Aquisition of ITP Aero	Progress updates received. A sub-committee of the Board was set up to make decisions on the settlement of consideration for ITP Aero.
	New accounting standards (IFRS 15) reporting/impact	Updates provided throughout the year, giving the Board oversight on progress, introduction and the impact of IFRS 15.

[1] It was agreed in the year to disband the IAB but some former members, including Lord Powell, have been retained by the Company as advisers on geo-political issues.

Area of focus	Matters considered	Outcome
Operational performance/ challenges	Operational performance updates	Year-to-date status across key operational performance measures and key priorities presented throughout the year. The operational KPIs for each business were also discussed.
	Civil Aerospace programme challenges, including new product introduction	There were some operational challenges during the year as described in the Civil Aerospace review on pages 20 to 25. The Board remained regularly informed on the management of these issues, including steps to minimise customer disruption, and received briefings from the Chief Executive and President – Civil Aerospace on the latest developments and status of programmes.
	Safety incidents	The Board were briefed on the two employee fatalities during the year (more detail can be found on pages 46 and 107) and on plans to increase the focus on HSE across the Group.
Stakeholder engagement and governance	Investor engagement	Increased transparency in investor briefings. The governance event in March 2017 was successful with good engagement from fund managers and governance analysts.
	Stakeholder engagement	The Board received training from the Company Secretary on s.172 of the Companies Act 2006 which included a discussion around the Group's key stakeholders and a review of how the Board currently discharges this duty. The Board held the first successful Meet the Board event for employees in May 2017. Updates were given by Irene Dorner on her employee champion role and meetings/events she had attended.
	Government's green paper on corporate governance reform and FRC's proposed revisions to the UK Corporate Governance Code	The Board were kept up-to-date on the proposed changes to the governance landscape. An assessment of the Company's position and status against each recommendation was presented in November and the Company's response to the FRC on the proposed changes was outlined in February 2018.
	Matters reserved to the Board and delegated authorities	The Board confirmed these remained appropriate.
	UK Modern Slavery Act revisions	The anti-slavery and human trafficking statement was presented and approved by the Board early in 2017, and again in February 2018.
	UK gender pay gap reporting	Kept up-to-date on the Company's plan to report the required gender pay gap data for UK legal entities published on our website and on the UK Government website.

The Board's areas of focus in 2018 are expected to include:

- The Group's vision, values and culture
- Execution of strategic priorities
- Overview of the restructuring of the businesses, support and management functions
- Strategic review of commercial marine operations
- Monitoring management of Trent 1000 and Trent 900 in-service issues towards resolution
- Civil Aerospace programme delivery ramp-up
- Continued monitoring of financial and operational performance
- Strong focus on safety and regular reviews of safety activities
- Continuing to monitor compliance with the terms of the DPAs
- The implications of Brexit on the Group's activities
- Principal risk reviews
- Cyber security updates
- Stakeholder engagement programme
- Updates on the developments and changes to the corporate governance landscape and the UK Corporate Governance Code
- Sustainability

Stakeholder engagement

Stakeholder engagement remains vital to building a sustainable business. This year, the Company took a significant step towards increasing stakeholder engagement with our two key employee engagement initiatives. The Board wanted to continue an honest and direct dialogue with our employees following the DPAs. The creation of the role of employee champion and our first Meet the Board event, detailed below, helped to strengthen the link between employees and the Board and ensure employee views can be taken into account as part of the Board's decision-making.

As part of training provided by the Company Secretary, the Board discussed the Company's key stakeholders, reviewed how we currently discharge the duty to promote the success of the Company and discussed what more could be done to help foster stakeholder relationships. The Board will continue to focus on stakeholder engagement more widely over the next year, with a focus on starting to build a comprehensive stakeholder engagement programme.

Employees

Employee champion

In early 2017, one of our Non-Executive Directors Irene Dorner became our first Board champion for employee engagement, our employee champion, taking the lead in looking at how the Company could strengthen the links between the Board and employees and bring those insights back to the boardroom.

In April 2017, she was introduced to all employees by a Group-wide communication and personally introduced at our Meet the Board event in May.

Irene has attended many events so far, including a European Works Council meeting in London, hosted a diversity and inclusion event in Bristol, met graduates and apprentices at Barnoldswick and Derby, and has participated in a live online interactive session with employees.

At the end of 2017, a communication video from Irene was made available to all employees updating them on her role and insights so far. We will continue communications in 2018 to ensure employees are aware of the activities Irene is taking part in.

As part of her role, Irene updated the Nominations & Governance Committee and the Board on her views and insights and she will continue to do so regularly. This was always an experimental year, however, the new initiative has proved to be of great interest to all involved and we intend to continue this interaction.

You can read more about Irene's view on her new role in her introduction on page 65.

MEET THE BOARD EVENT

In May 2017, following our AGM in Derby, we held our first Meet the Board event for employees. Our entire UK workforce, as well as visiting employees from overseas, were invited to apply for one of the 350 places available and participants were selected on a ballot. All Group employees were invited to submit questions in advance of the event. The meeting was recorded so it could be watched after the event had taken place by those employees unable to attend in person.

The meeting started with a welcome from the Chairman. Irene Dorner then spoke about her role as employee champion and Warren East provided a brief business update on 2016. The main focus of the meeting was a question and answer session. The quality of questions was excellent and generated a lively debate that covered a broad range of topics including diversity, behaviour, our strategy, future focus for the Group and each Board member's top priority. After the meeting, the Board joined attendees in the main reception area and this was another great opportunity for interaction.

The objective was for employees to gain a better understanding of the Board's role and to start a conversation that will lead to a stronger, more open and collaborative culture. The event was a huge success and based on some helpful feedback, we have already identified changes that will make future meetings even better.

One employee, interviewed immediately after the meeting said, "It was really helpful to have the apparent barriers broken down that can sometimes exist between the Board and the people that work in the organisation. I particularly enjoyed the openness, honesty and transparency".

In March 2018, we plan to hold a similar event in Friedrichshafen, Germany, and in May after the AGM in Derby, UK.

Shareholders

The Board continues to value the importance of building strong investor relations, delivered through an active shareholder communication programme. Since 2016, we have significantly enhanced disclosure and transparency through improved reporting, allied to proactive engagement and publications such as our periodic Investor Update newsletter. This was one of the Group's strategic priorities as set out on page 7.

In 2017, our engagement programme has focused on addressing key elements of the investment case, and identifying both risks and opportunities to the business. In particular, we have set out our focus on helping investors better understand the key drivers of cash across the businesses, together with the implementation of IFRS 15, which will see a material change in the way the business reports its financial results.

During the year, an extensive investor engagement programme has been undertaken involving formal events, site visits, smaller group and one-to-one investor meetings. Many of these provide the chance for institutional investors and equity analysts to meet senior executive management and ask more detailed questions that can improve individual knowledge or clarify areas of misunderstanding. We regularly monitor the Group's shareholder base and ensure management's time is allocated appropriately with regard to current and potential shareholder interests.

As well as attending numerous investor conferences and roadshows in the UK, Europe and the US, we were also active at trade-related events such as the Paris Airshow and the defence trade show DSEI, allowing investors to hear from key business managers. In total, over 400 one-to-one and group meetings took place in 2017, led by the Chief Executive, Chief Financial Officer, the director of investor relations or members of the investor relations team and supported by other management.

On governance-related matters there was a very significant consultation programme in advance of the remuneration policy vote at the AGM in May. In addition, another well-attended governance event was held in May, hosted by the Chairman. Fund managers and governance analysts heard from the Chief Executive on his strategic agenda and from the Board committee chairmen and had the opportunity to engage directly with them in small groups. The lead audit partner from KPMG also attended this event and answered questions. Topics covered at the event included board composition, skillset and 2017 priorities, financial reporting, IFRS 15 and risk management, and the context and design of the new remuneration policy. Materials from this event are available at www.rolls-royce.com.

The Chairman, Senior Independent Director and other members of the Board make themselves available to meet with institutional investors when requested. In 2018, the Chairman and Senior Independent Director have already attended governance meetings with some of our largest institutional shareholders in London and Edinburgh.

We also published quarterly Investor Update newsletters throughout the year, which include commentary on the investor relations calendar, key news flow and a Q&A section which addresses investor issues that have been raised in recent discussions. Feedback on this newsletter has been very positive.

Annual general meeting (AGM)

All holders of ordinary shares may attend the Company's AGM at which the Chairman and Chief Executive present a review of the key business developments during the year.

The AGM will be held on Thursday 3 May 2018 at Pride Park Stadium, Pride Park, Derby, DE24 8XL. The notice of meeting (notice) for the 2018 AGM will set out in full the resolutions for consideration by shareholders, together with explanatory notes and further information on the Directors standing for election and re-election. The Company intends to send the notice and any relevant papers to shareholders at least 20 working days before the meeting.

Notable events in 2017

CEO/CFO meetings	Investor conferences and other events	Investor Update newsletters	Total investor meetings
>150	18	4	>400

More information on investor events, presentations, updates and the notice can be found at: www.rolls-royce.com

Board induction and development

The Chairman and Company Secretary arrange a comprehensive tailored induction programme for newly-appointed Non-Executive Directors, which includes dedicated time with Group executives and scheduled trips to business operations. The programme is tailored based on experience and background and the requirements of the role. All Directors visit the Group's main operating sites as part of their induction and are encouraged to make at least one visit to other sites each year throughout their tenure. In 2017, Board members visited locations including: Barnoldswick, Bristol and Derby, UK; Friedrichshafen, Germany; and Reston, US. We regard these site visits as an important part of continuing education as well as an essential part of the induction process. They help Directors understand the Group's activities through direct experience of seeing processes in operation and by having discussions with a range of employees.

Beverly Goulet was appointed to the Board in July 2017 and joined the Nominations & Governance and Audit Committees. Since her appointment she has undertaken a thorough induction and met with members of the ELT. She was also briefed by the Company Secretary on UK listed company requirements, the UK Corporate Governance Code and other key governance areas. Beverly has attended a number of site visits, including Bristol, UK and Reston, US.

It is important that the Directors continue to develop and refresh their understanding of the Group's activities. To facilitate this, the Board met local management and external stakeholders at its meetings in Derby and Bristol, UK and they are encouraged to visit the Group's facilities around the world.

It is also important that the Directors regularly refresh and update their skills and knowledge and receive relevant training when necessary. Members of the Board also attend relevant seminars, conferences and training events to keep up-to-date on developments in key areas.

Board induction programme for Beverly Goulet

Timing	People to meet	Key topics covered
Within first month	Chairman	Overview of the Board
	Chief Executive	Business model Current strategic priorities Opportunities/risks Current issues
	Chief Financial Officer	Finance, treasury and tax overviews Budget Accounting issues
	Company Secretary	UK Corporate Governance Code UK listed company requirements Directors' duties Board administration and meeting dates
Within first three months	ELT members	Overview of each business — Markets and competition — Operational and financial performance — KPIs — Current issues
Within first nine months	Committee chairmen	Overview of committees Plan of work for the year Current issues
	Senior management, including director of investor relations, director of internal audit and director of corporate affairs	Overview of specific business/functional areas
	Auditors	Audit report and findings Controls Accounting issues

Board effectiveness

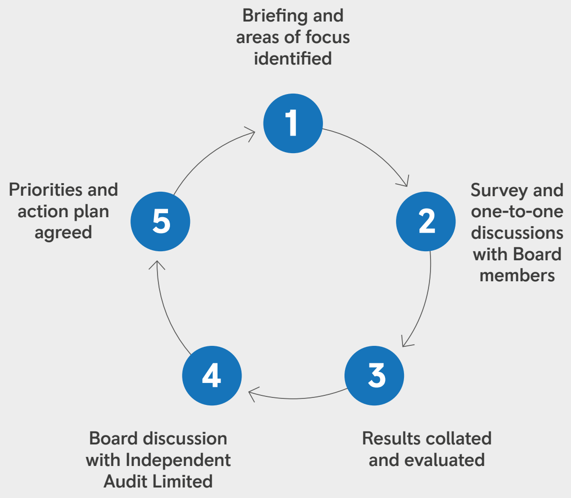
Board evaluation

This year Independent Audit Limited (IAL) was invited back to undertake another externally-facilitated effectiveness review, following on from its yearly reviews since 2014. IAL has not provided any other services to the Company during the year. The evaluation was consciously 'light touch' compared to previous reviews and it was undertaken through a questionnaire-based survey. This was complemented by confidential one-to-one discussions between IAL and several members of the Board and management to help bring focus to the questions. The review covered four specific areas which had been identified as requiring further development during last year's review and the scope was agreed with the Company Secretary after consultation with the Chairman. The four specific areas of focus were: Board dynamics; focus; information; and culture.

A review of the effectiveness of Board committees was undertaken separately at the end of the year internally with the use of an effectiveness questionnaire. A thorough review of the committees will form part of next year's evaluation. To provide a renewed perspective, next year's evaluation will be undertaken by a new external provider and this will take place in the second half of 2018. Good progress had been made since the last effectiveness review and the Board feels that it is working more effectively. The Board discussed the findings of the report in December.

At a private meeting of the Non-Executive Directors, Sir Kevin Smith, Senior Independent Director, led a review of the Chairman's performance without the Chairman present.

Stages of the Board effectiveness process



The Nominations & Governance Committee also met without any management present to discuss the performance of the Chief Executive. The meetings concluded that both the Chairman and the Chief Executive continued to be effective and constructive feedback was shared with each of them.

Progress on four key areas

Areas of focus	IAL's findings in 2017	Focus for 2018
Board dynamics	The dynamics of the Board have improved, with good all-round commitment from Board members, a good mix of styles, a constructive approach and wide participation in meetings. Cross-membership and active collaboration has meant liaison across committees is working well.	Maintaining an open tone between the Non-Executive Directors and management to encourage constructive discussions on the challenges ahead. **Responsibility: Chairman**
Focus	Considerable progress has been made in setting a clear strategic direction and getting the right senior executives in place. The changes resulted in better discussions on the most relevant topics. There was a better balance of time during meetings, with more time spent on key discussion items.	Continue to oversee the execution of the Group's strategic priorities and how management are addressing the near-term operational challenges. Ensure agendas continue to allow enough time for the Board to focus on the most relevant topics and allow the appropriate amount of time for high-quality discussion. **Responsibility: Chairman/Company Secretary**
Information	There has been some progress in improving the information provided to the Board. However more work is needed to ensure papers focus on the relevant data and avoid excessive and unnecessary detail.	Improving information will continue to be a priority. In particular, management will focus on providing all the relevant information to allow informed debate without over-burdening the Board with excessive operational detail. **Responsibility: Chief Executive/ Chief Financial Officer/Company Secretary**
Culture	The Board is confident with its approach to oversight of culture and takes a robust approach to assessing ethical standards: issues are well understood and are tracked.	The Board will remain focused on culture in 2018 and will be kept well-informed on progress with the latest restructuring plans, including monitoring of management's approach to embedding behaviours. **Responsibility: Chairman/Chief Executive**

Compliance with the UK Corporate Governance Code 2016 (the Code)

The Company is subject to the principles and provisions of the Code, a copy of which is available in full at www.frc.org.uk.

For the year ended 31 December 2017, the Board considers that it has complied in full with the provisions of the Code. Below is a statement of compliance that explains how the Company has applied the principles and complied with the provisions in the Code.

A – LEADERSHIP

A1 The role of the Board

The Board is ultimately responsible for the management, direction and performance of the Company and its businesses. It sets the Group's strategy and objectives and oversees and monitors internal controls, risk management, principal risks, governance and viability of the Company.

The Board Governance document (available at www.rolls-royce.com) includes a clear schedule of matters reserved for the Board's approval, which is reviewed at least annually.

A2 Clear division of responsibilities

The roles of the Chairman and Chief Executive are clearly defined and the Board supports the separation of the two roles. The key responsibilities are clearly documented in our Board Governance document. The Chairman is responsible for the leadership and effectiveness of the Board. The Chief Executive is responsible for the running of the Company's business.

A3 Role of the Chairman

The Chairman ensures effective running of the Board and its committees in accordance with the highest standards of corporate governance. He sets the agenda for Board meetings making sure consideration is given to the main challenges and opportunities facing the Company and facilitates open and constructive dialogue during meetings.

A4 Role of the Non-Executive Directors

Non-Executive Directors are independent of management and bring a diverse set of skills and experience to meetings. The Non-Executive Directors support the Chairman and provide objective and constructive challenge to management. Their views are actively sought when developing proposals on strategy, including during discussions in meetings, in post-meeting conversations, or as part of the annual Board and ELT strategy day. All of the Board committees consist exclusively of Non-Executive Directors.

The Senior Independent Director provides a sounding board for the Chairman and serves as an intermediary for the Chief Executive, other Directors, and shareholders when required.

At the end of most scheduled Board meetings, the Chairman holds meetings with the Non-Executive Directors without the Executive Directors or management present.

B – EFFECTIVENESS

B1 The composition of the Board

The Board believes it operates effectively with the appropriate balance of independent Non-Executive and Executive Directors who have the right mix of skills, experience and knowledge of the Company. The Nominations & Govenance Committee is responsible for regularly reviewing the composition of the Board.

Details of the Board, their biographies and committee membership are set out on pages 66 to 68.

The Board conducts a review of the independence of the Non-Executive Directors every year, based on the criteria in the Code and following consideration by the Nominations & Governance Committee as detailed on page 82. The review in November 2017 concluded that all the Non-Executive Directors, with the exception of Brad Singer, remained independent in character and judgement.

Brad Singer is a partner and the chief operating officer of ValueAct Capital, a major shareholder, and therefore was not considered independent under the provisions set out in the Code. A relationship agreement between the Company, ValueAct and Brad Singer, was in place throughout 2017 to manage any conflicts of interest that arise from his connection to ValueAct.

The Code does not consider the test of independence to be appropriate to the chairman of the company. However, Ian Davis did meet the Code's independence criteria upon his appointment as a Non-Executive Director in March 2013 and as Chairman in May 2013.

B2 Appointments to the Board

Appointments of new Directors are led by the Nominations & Governance Committee, which are recommended to the Board. Details of the appointment process, and changes made during the year, are set out in the Nominations & Governance Committee report on pages 79 to 82.

MWM Consulting provided external search consultancy services in relation to the appointments of Beverly Goulet and Nick Luff. They had no other connection to the Company during the year.

B3 Time commitment

Non-Executive Directors are advised of the time commitment expected from them on appointment. External appointments, which may affect existing time commitments for the Board's business, must be agreed with the Chairman. Full details of these are set out at www.rolls-royce.com.

B4 Induction, training and development

All new Directors receive a full induction programme when they are appointed to the Board, more details of which are on page 75. The Board received additional training throughout the year on key topics, as appropriate.

B5 Information and support

The Company Secretary makes sure that appropriate and timely information is provided to the Board and its committees and is responsible for advising and supporting the Chairman and Board on all governance matters. All Directors have access to the Company Secretary and may take independent professional advice at the Company's expense in conducting their duties.

B6 Evaluation

The Board evaluation for 2017 was externally facilitated and more details can be found on page 76. The Chairman also met each Director individually to discuss their contribution, performance over the year and any development needs. Following the meetings, the Chairman confirmed that each Director was committed to their role and they were effective.

At a private meeting of the Non-Executive Directors, Sir Kevin Smith, Senior Independent Director, led a review of the Chairman's performance without the Chairman present. The Nominations & Governance Committee also met without management present to discuss the performance of the Chief Executive. The meetings concluded that both the Chairman and the Chief Executive continued to be effective and constructive feedback was shared with them.

B7 Election/re-election

All Directors are subject to election or re-election at the AGM. Following recommendations from the Nominations & Governance Committee the Board considers that all Directors continue to be effective, committed to their roles and have sufficient time available to perform their duties. In accordance with the Code, Beverly Goulet and Nick Luff will seek election and all other Directors will seek re-election at the 2018 AGM.

C – ACCOUNTABLITY

C1 Financial and business reporting

The requirement for the Annual Report, taken as a whole, to be fair, balanced and understandable is taken into consideration in the drafting and reviewing process. See page 99 for the process to review the form and content. The Strategic Report, set out on pages 1 to 63, provides information about the Group's business model, performance, strategy and principal risks.

C2 Risk management and internal control

The Board has carried out a robust assessment of the principal risks facing the Company including those that would threaten its business model, future performance, solvency or liquidity. See pages 59 to 62 for more details on the Group's principal risks and a description of changes during the year.

In developing the internal governance framework (see page 82) the Group looked at how the risk management and internal control systems work together. You can read more about the risk management system on page 59 and details of the internal control system on page 101. The Board, with the advice of the Audit Committee, has reviewed the effectiveness of the risk management and internal control systems, including controls in relation to the financial reporting process, for the year under review and up to the date of this report. The Board confirms that the Group continues to be compliant with the Code, Financial Conduct Authority's Disclosure Guidance and Transparency Rules (DTR) in this regard.

The activities of the Audit Committee, which assists the Board with its responsibilities in relation to risk and assurance, are set out on pages 97 to 103.

C3 Audit Committee and auditors

The Audit Committee Report on pages 97 to 103 sets out details of how the Committee has discharged its duties and its areas of focus during the year.

In accordance with the Code and DTR 7.1 the Board is satisfied that Lewis Booth, Beverly Goulet and Irene Dorner, all members of the Audit Committee, have recent and relevant financial experience, and when considered as a whole, the Committee has competence relevant to the sector in which the Company operates to ensure the right balance of skills, experience, professional qualifications and knowledge.

D – REMUNERATION

D1 The level and components of remuneration

The Directors' remuneration report is set out on pages 83 to 96 which outlines the areas of focus during the year and a summary of the remuneration policy, as approved by shareholders at the 2017 AGM.

The Remuneration Committee sets levels of remuneration which are designed to promote the long-term success of the Group, aligning this with the Group's strategy and business objectives and ensuring it reflects our stakeholders' interests. It is responsible for recommending to the Board the remuneration policy for Executive Directors, other members of the ELT and for the Chairman, and for implementing the policy.

In November 2017 we decided to publish our data on gender pay earlier than required. More information is available on page 94 and at www.rolls-royce.com.

D2 Procedure

For more information on the work of the Remuneration Committee and Directors' remuneration see the report on pages 83 to 96.

Ruth Cairnie, the chairman of the Remuneration Committee, meets with institutional shareholders regularly, as appropriate.

E – RELATIONS WITH SHAREHOLDERS

E1 Dialogue with shareholders

The Board considers that effective channels of communication with the Company's institutional investors and individual shareholders are very important. You can read more about engagement with shareholders on page 74.

E2 Constructive use of General Meetings

The AGM provides a key opportunity for the Board to meet and communicate with shareholders. Shareholders can ask questions of the Board on matters put to the meeting, including the Annual Report and the running of the Company generally. Company representatives and the Company's Registrar are also available for any questions shareholders might have.

Terms of reference of the Board committees and shareholder information are available at www.rolls-royce.com

Nominations & Governance Committee Report

Ian Davis
Chairman of the Nominations & Governance Committee

Key highlights

- The appointment of Beverly Goulet as a Non-Executive Director was considered and recommended to the Board
- Diversity and inclusion (including a new Board policy)
- Talent, capability and succession
- Monitoring of UK corporate governance proposals

Introduction

The Committee leads the process for nominations to the Board, making recommendations to the Board as appropriate. It gives full consideration to the composition of the Board and succession planning for Directors and senior executives. The Committee also keeps the Group's corporate governance arrangements under review and ensures they are consistent with best practice standards.

Operation of the Committee

The Committee consists wholly of independent Non-Executive Directors and the Chief Executive attends the meetings. Brad Singer, although not independent, attends meetings when it is considered appropriate. Our biographies are on pages 66 to 68. The Committee's responsibilities are outlined in its terms of reference, available at www.rolls-royce.com, which we review annually and refer to the Board for approval.

Committee members

Member	Attended	Eligible to attend
Ian Davis	7	7
Lewis Booth	7	7
Ruth Cairnie	7	7
Sir Frank Chapman	6	7
Irene Dorner	7	7
Beverly Goulet	4	4
Lee Hsien Yang	7	7
Sir Kevin Smith	6	7
Jasmin Staiblin	7	7

See page 70 for reasons of non-attendance.

Principal responsibilities

Board and committee composition

- Review the structure, size and composition of the Board and its committees regularly, to ensure that they remain appropriate, and to make any recommendations of any changes to the Board.
- Evaluate and consider any Director's conflicts of interest.

Board nominations

- Recommendation of new appointments to the Board.
- Oversee the induction plans, training and site visits for the Directors.

Succession planning

- Consider succession plans for Directors and senior executives.
- Diversity and inclusion reviews and implementation of policy.

Evaluation of Chairman, Chief Executive and Non-Executive Directors

- Conduct an annual evaluation of the Chairman.
- Conduct an annual evaluation of the Chief Executive.
- Review the independence of the Non-Executive Directors.

Corporate governance

- Review the Group's global governance framework.
- Keep up-to-date with the changing governance landscape and report on the Group's corporate governance practices to ensure they remain appropriate for a group the size and complexity of Rolls-Royce, taking account of best practice principles.

Principal risk – talent and capability

- Oversight of one of the Company's principal risks.

Areas of focus for 2018

– Diversity and inclusion
– Talent, capability and succession
– Employee engagement
– Culture and behaviour

Nominations & Governance Committee focus during 2017

Area of focus	Matters considered	Outcome
Board and committee composition	A review of the composition of the Board and committee membership	When reviewing Non-Executive Director appointments the Committee considers the current skills, experience and tenure of the Directors and assesses future needs against the longer-term strategy of the Group. The Committee recommended to the Board that Lewis Booth, chair of the Audit Committee, join the Remuneration Committee to strengthen the link between the Remuneration and Audit Committees.
Board nominations	Re-appointment of three Non-Executive Directors The appointment of Beverly Goulet as Non-Executive Director and oversight of Beverly's induction plan A review of site visits undertaken by Board members	The Committee satisfied itself that the Directors considered for re-appointment continued to be committed and effective. Members of the Committee were involved in the interview process for the new Non-Executive Director and the Committee recommended Beverly Goulet's appointment to the Board. You can read more about the appointment process on page 81.
Succession planning	Progress on succession planning Two updates on diversity and inclusion	There has been a continued focus on succession planning this year, with a number of changes to the ELT. The discussions focused on the executive pipeline. The Committee approved the Board diversity policy in December 2017. It was agreed to maintain focus on diversity and inclusion in 2018.
Evaluation of Chairman, Chief Executive and Non-Executive Directors	Annual review of the effectiveness of the Chairman and the Chief Executive, led by the Senior Independent Director and the Chairman respectively Annual review of whether the Non-Executive Directors remained independent, taking into account the independence criteria set out in the Code	The Chairman and Chief Executive continue to be effective. Feedback was shared directly with them. The review concluded that all Non-Executive Directors, with the exception of Brad Singer, remained independent.
Corporate governance	A review of our global governance framework Periodic governance updates from the Company Secretary	A refreshed governance framework was published internally in June 2017. The Committee has been kept informed about the changes to the governance landscape and the various proposals on UK corporate governance.
Oversight of principal risk – talent and capability	The principal risk is considered when discussing talent and capability	It was agreed that continuing focus was required, particularly on the high-potential and emerging talent pools. The Board apprentice programme was introduced as a pilot initiative.

Board and committee composition

The Committee regularly reviews the balance and composition of the Board, its committees and the executive team, as well as Non-Executive Director independence, skills and tenure. When reviewing the Non-Executive Directors appointments the Committee considers the current skills and experience of the Board and assesses future needs against longer-term succession planning in light of the Group's strategy.

The Committee also takes into account the need to make sure there is appropriate diversity on the Board. During the year, the Committee considered the external reviews on diversity, namely the Parker Review and the Hampton-Alexander Review, published in November 2016. Further details on our approach to diversity are set out on pages 81 to 82. The Committee is satisfied with the current composition of the Board committees and believes that undue reliance is not placed on particular individuals. The Board committee membership is set out on page 68. This will be regularly reviewed and refreshed by the Board.

Board inductions, training and development

The Company Secretary is responsible for ensuring that new Directors have a thorough and appropriate induction. Each newly appointed Director has a structured induction programme and receives a comprehensive data pack providing detailed information on the Group. You can read more about inductions and continuing development on page 75.

Board nominations

In April 2017, Stephen Daintith was appointed to the Board as Chief Financial Officer. In July 2017, the Committee recommended to the Board the approval of Beverly Goulet as Non-Executive Director.

During the year, we considered and recommended to the Board the terms of appointment for Ruth Cairnie for a second three-year term and Lewis Booth and Sir Frank Chapman both for a third three-year term subject to annual shareholder re-election. For each re-appointment we consider the effectiveness and commitment of the Director and undertake a more thorough review of those Directors who are being re-appointed for their third three-year term. The Committee was satisfied with the Directors' continued commitment and effectiveness.

Beverly was identified as a candidate for the Board through our external search for a director with experience in the airline or aerospace sectors, with a particular focus on the US. Prior to her appointment, Beverly met with seven members of the Board and we collected references from chairmen of companies where she had previously worked. The Committee agreed that Beverly had strong functional expertise in finance, strategy and legal matters as well as a wealth of knowledge of the airline industry.

In February 2018, it was announced that Nick Luff, currently chief financial officer of RELX Group, would be appointed as Non-Executive Director with effect from close of the AGM in May 2018, subject to shareholder approval. Nick will join the Audit Committee and Nominations & Governance Committee. Nick was identified as a candidate that would bring significant expertise in finance and accounting to the Board. Prior to his appointment, Nick met with eight members of the Board including the Chairman, Chief Executive and Chief Financial Officer.

For Beverly's and Nick's appointments, the Committee appointed MWM Consulting. Prior to the new appointments, the Chairman agreed a Non-Executive Director profile and the Committee provided input into a shortlist of candidates for the roles. You can read their full biographies at www.rolls-royce.com.

Succession planning

The Committee is committed to regularly reviewing succession planning and it plays a vital role in promoting effective board succession, making sure that this is aligned to the Group's strategy. A principal risk to the business is the inability to attract, retain and incentivise talented individuals to deliver our strategy; the Committee is responsible for reviewing talent, capability and succession at the most senior levels of the business. There has been a continued focus on succession planning in the year and we have taken significant steps to strengthen our management and ELT.

In September, the Chief Executive and Group Human Resources Director led discussions on succession planning with the Board and the Committee. The review focused on the executive pipeline from which the future leaders of the Company were likely to emerge, both at ELT level and other key management areas. Strong successors have been identified for most ELT roles and future considerations have been taken into account in identifying successors both immediately below ELT level and those that would be ready to take up an ELT position in one or two moves. A diverse pipeline of 'ready later' emerging talent has been identified, and a plan would be put in place to accelerate their path to succession where possible. It was also identified that there was a need for more rigour, challenge and calibration around talent and succession and we would review progress again in 2018.

As we reported last year, we recognise that succession planning includes nurturing our own talent pool and giving opportunities to those who are capable of growing into more senior roles. Throughout the year, Directors took opportunities to meet with senior management throughout the Company, including in Bristol where they met the Defence Aerospace leadership team and at the senior leadership conference where they met key managers. At the beginning of 2018, we were also pleased to announce the appointments of Chris Cholerton, former President – Defence Aerospace, as the new President – Civil Aerospace, and Tom Bell, a former employee, as the new President – Defence. These appointments come at a crucial time for our business as the Company seeks to make 2018 a breakthrough year.

Board apprentice programme

In 2017, we created a new Board apprentice programme. This is a nine-month programme that will provide leadership development experience to demonstrate our commitment to the participants' career progression and development as leaders in the organisation. The opportunity provides the participants with exposure to the Board and personal career development through observing and learning from boardroom experience.

The first high-potential candidates to participate in a trial of the programme brought diversity of thought, gender, nationality and ethnicity. The key elements of the programme include: early career conversations with the Group Human Resources Director or members of the senior leadership team; an orientation meeting providing an overview from Directors of what it means to be on a board; an opportunity to network with other candidates on the programme; attendance at Board/committee meetings; and networking with our ELT.

Diversity and inclusion

Diversity and inclusion continues to be an area of focus for the Committee. As mentioned on page 47, during 2017 we launched a new strategy with global targets to increase female participation at all levels of our organisation by 2020. The Committee was updated on progress against these and activities to drive diversity and inclusion across the Company including: establishing a Global Diversity and Inclusion Council; a number of senior female appointments; launching an online series of digital communications on diversity and inclusion focusing on key issues such as flexible working and mental health; launching the Board apprentice programme; and trialling female-only assessment centres for STEM roles.

Rolls-Royce is also a founding patron of the FTSE-100 Cross-Company Mentoring Programme which aims to widen the pool of eligible female board candidates. At the date of this report the percentage of women currently on our Board is 33% (2016: 23%). The Committee will instruct search consultants to identify, as a priority, female candidates who meet the skills and experience brief. As with all previous appointments, we will consider candidates from the widest possible pool and will only engage search firms that have signed up to the Voluntary Code of Conduct for Executive Search firms.

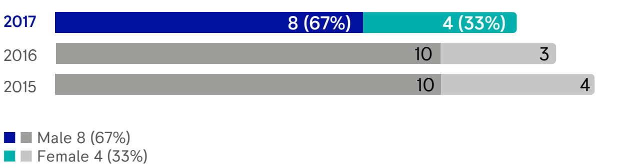
Board diversity policy

Objective	Progress
All Board appointments will be made in the context of the skills and experience that are needed for the Board to be effective.	The Committee regularly reviews the composition of the Board.
Maintain a balance so that, as a minimum, one third of the Directors are women.	The chart below highlights that the percentage of women on the Board is 33%, which is higher than last year.
Support and monitor Group activities to increase the percentage of senior management roles held by women and other under-represented groups.	The Committee focused on strengthening the pipeline of executive talent in the Company. Group activities include the external hiring of diverse senior managers and internal promotion activity and continued emphasis on diverse pipeline, graduate and apprentice recruitment. You can find out more on page 47.
Monitor, challenge and support internally set targets for diversity and inclusion at all levels across the organisation.	This is ongoing and will be kept under review. The charts on page 66 provide a clearer picture of our Board diversity and our diversity & inclusion targets are on page 47.

In the year, the Board approved the Board diversity policy which adopts a target that one third of Board members should be female. It is recognised that there will be periods of change on the Board and that this number may be smaller for periods of time while the Board is refreshed. It is our longer-term intention, however, to at least maintain this balance.

Our policy will continue to promote an inclusive and diverse culture and will reaffirm our aspiration to meet and exceed the recommended voluntary target of 33% of Board positions being held by women in 2020. The objectives in the policy remain relevant targets against which to measure our progress. We will continue to progress our Board diversity policy. During the year we are committed to set and publish a target for ELT and senior leadership gender balance. You can find the full policy at www.rolls-royce.com.

Board members by gender



Governance

We strive to take an innovative approach in all that we do and that includes our approach to governance. In 2017, we have carried out a number of initiatives such as our Meet the Board event, the Board apprentice programme and the appointment of Irene Dorner as our Non-Executive Director employee champion and we continue to look to be 'best in class' and to ensure our governance is appropriate for the Group and all our stakeholders.

The Group's governance framework continues to be effective. Following its launch in 2016, an updated version was issued in June 2017, containing a new section on strategy, planning and in-year appraisal. We continue to work on developing and maturing the framework, with the current focus on building on the considerable work done to date on our Group policies, to bring further improvements and ensure the Group policies are understood and embedded across the organisation. The outcome of this work will provide a condensed and more succinct set of Group policies.

In September, we established a new executive level group governance committee, chaired by the General Counsel. This new committee will help to keep the governance framework and the development of the Group policies under review. It will oversee the effectiveness of the framework across the organisation and ensure that the Group's corporate governance and corporate compliance arrangements, practices and procedures (below Board level) are consistent with appropriate best practice principles and standards for a group of the size and complexity of Rolls-Royce.

The Nominations & Governance Committee is provided with regular updates on key developments to corporate governance. This year, the Committee has been kept informed about the changes to the governance landscape and the proposals from the government's green paper on UK corporate governance and the FRC's consultation on the UK Corporate Governance Code.

Conflicts of interest and independence

The Board continues to monitor and note potential conflicts of interest that each Director may have and recommends to the Board whether these should be authorised and whether any conditions should be attached to any authorisation. The Directors are regularly reminded of their continuing obligations in relation to conflicts, and are required annually to review and confirm their external interests, which helps to determine whether each of them continue to be considered independent.

Brad Singer, as a representative of a significant shareholder, is not considered to be independent. As noted on page 77, the conflict of interest was managed throughout the year by a relationship agreement between the Company, ValueAct and Brad Singer.

During the year, following an annual review, no additional conflicts of interest were identified which required approval by the Board. The Committee advised the Board that it considered that each of the remaining Non-Executive Directors continued to be independent.

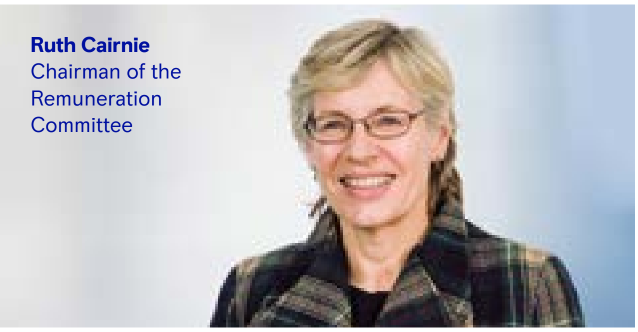
Looking forward

I am pleased to report we have made good progress against our priorities for 2017 in relation to succession planning. However, we still have work to do in this area and in relation to diversity and inclusion.

During the course of 2018, the Committee will continue to keep under review any future UK corporate governance reforms as they are finalised and also review progress of our initiatives including the Board apprentice and employee engagement programmes.

Ian Davis
Chairman of the Nominations & Governance Committee

Remuneration Committee Report



Key highlights
Implementation of the new Directors' remuneration policy
Strong bonus performance for 2017
Stephen Daintith's appointment to the Board
Employee engagement on executive remuneration

Introduction

I am pleased to present my second report as Chairman of the Remuneration Committee, outlining the areas of focus for the Committee during the year.

New remuneration policy

In 2017, we revised our remuneration policy to strengthen the connection to our strategy. The changes addressed the themes of transformation, competitiveness, alignment with shareholders and simplicity and included:

- simplifying the design of both short and long-term incentives;
- increasing the maximum level of long-term incentive plan (LTIP) award;
- reducing the vesting level for threshold performance in the LTIP and adding a two-year holding period.

In developing the new policy we engaged extensively with our major shareholders to understand their perspectives and address any concerns, and we secured strong support for the policy at the 2017 AGM (96%).

Based on the first year of implementation, the new policy is working well for us. The additional potential for performance-based awards has supported our talent agenda, enabling us to bring experience from other sectors into senior positions; an example is the appointment of Stephen Daintith as Chief Financial Officer. The structure of the performance-based incentives is much simpler and we have been able to communicate progress towards our targets more clearly to employees. The alignment of shareholder interests and our remuneration targets is evident: to pay out, our incentives require the continued ramp-up of new engine delivery, increase in flying hours, improvements in operational performance, strong cash management and a shift in our culture towards pace and simplicity. I am pleased that the clarity of our measures and strong link to strategy enables the Committee to have robust, data-driven debate about both targets and outcomes.

2017 outturns

The 2015 performance share plan (PSP) awards will not vest as the performance conditions were not met over the three-year performance period to 31 December 2017. This reflects the reset in performance expectations, notably EPS, during this performance period as the business entered a major period of transition. This is the third consecutive year that PSP has not vested, an outcome which aligns with our shareholders' experience over this period.

When setting targets for the 2017 annual bonus, the Committee took a diligent approach, recognising that many of the headwinds encountered in 2016 (for example the cash drain associated with delivery of increasing numbers of new engines) would continue to impact the businesses, but that substantial progress was needed on the path to a transformed business with stronger financial performance.

The reported financial performance in 2017 saw both underlying profit and free cash flow exceeding expectations. This resulted from the growth in our installed engines delivering significantly higher service revenue, a solid performance in Defence Aerospace and strong performance by Power Systems, together with the benefits of the transformation programme being felt. The higher profitability and better working capital management led to the growth in cash flow.

In determining the outcomes for bonus the Committee has rigorously examined the quality of both profit and cash flow outturns to ensure that awards reflect operational improvements and delivery of the transformation programme. Adjustments were made to remove the greater than budgeted benefit of the R&D capitalisation policy. After this adjustment both profit and cash outcomes remained above target levels.

For our non-financial incentive measures, our delivery metric was just above target level, with strong performances in some businesses offsetting challenges in Civil Aerospace. Employee engagement remained at the same level as in 2016 which limited the outturn of this metric to base level. The overall bonus outturn across both financial and non-financial metrics was 72% of maximum reflecting a strong performance in a year with many challenges.

The Committee also considered the bonus in the round, to decide whether this outperformance seemed appropriate, taking into account external factors, progress on the strategic journey and shareholder experience. Overall we felt that management had responded vigorously to the challenges posed by in-service issues as well as continued market challenges, for example in Marine, and had made good strategic progress. Taking everything into account we decided not to make any further adjustments.

I am also pleased that we are able to pay bonuses to employees throughout the organisation for a second consecutive year.

Board changes

Stephen Daintith joined the Board in April 2017. Awards that he would otherwise have forfeited from his previous employer were bought out, retaining performance conditions where relevant and matching or exceeding previous time horizons.

We also announced the departure of both Colin Smith and David Smith from the Board in 2017. In both cases outstanding PSP awards were pro-rated and will vest at the normal time against achievement of the relevant performance conditions. The 2015 PSP awards have lapsed as the targets were not met. Neither Colin nor David participated in any incentive plans in 2017. David Smith's contractual payments were mitigated due to his external appointment to QinetiQ.

2018 salary review and incentives

The Committee has reviewed the salary levels of the Executive Directors and has concluded that no increases will be made for 2018.

The only change we have made to the implementation of our policy is to increase the weighting of the cash metric in the annual bonus from 37.5% to 50%, reflecting that cash is the key performance metric across our business.

Gender pay

In line with the new UK regulations, we published our gender pay gap in November 2017. It showed a median pay gap of 8.1% (mean 8.3%) across all Rolls-Royce employees in the UK. While our UK gender pay gap is better than the UK national average, as with many engineering organisations we have a relatively low number of women in our business and they are not as well represented in higher level roles as men. We are working to improve the representation of diverse talent at all levels in the organisation with the adoption of the Board Diversity policy and with plans in place that are set out on pages 47, 81 and 82.

Engagement with employees

I am keen that the Committee keeps in touch with what our employees are thinking about executive remuneration. Combined with insights from shareholders, this helps ensure the Committee has a rounded view to inform the decisions that we make. At the end of 2017, I started to engage in employee focus groups to get feedback on this topic and I will continue to meet with employees in 2018. These meetings are closely aligned with the work of fellow director Irene Dorner in her role as employee champion.

In addition we have chosen to publish our CEO pay ratio versus UK employees in this year's report on page 93. We believe it is helpful to be as transparent as possible about executive pay.

Operation of the Committee

All members of the Committee are independent Non-Executive Directors. Lewis Booth joined the Committee in April 2017. Our biographies are on pages 67 and 68.

The Committee's responsibilities are outlined in its terms of reference which can be found at www.rolls-royce.com, and which we review annually and refer to the Board for approval.

In addition to its five scheduled meetings, the Committee held unscheduled meetings in January and March to discuss 2017 bonus plan targets.

Committee members

Member	Attended	Eligible to attend
Ruth Cairnie (chairman)	7	7
Lewis Booth	5	5
Sir Frank Chapman	6	7
Sir Kevin Smith	6	7

See page 70 for reasons of non-attendance.

Other attendees

In addition to the members of the Committee, the Chairman, Chief Executive, Chief Financial Officer and any of the Non-Executive Directors may attend one or more meetings at the Committee's invitation, although none was present during discussion of his or her own remuneration package. The Committee is supported by the Company Secretary, the Group HR Director and Global Performance, Reward & Pensions Director.

Advisers

During the year, the Committee had access to advice from Deloitte LLP's executive compensation advisory practice. Total fees for advice provided to the Committee during the year by Deloitte were £126,750 (2016: £159,175). Deloitte also advised the Company on tax, corporate compliance, employee global mobility, assurance, pensions and corporate finance and Deloitte MCS Limited provided consulting services. The Committee is exclusively responsible for reviewing, selecting and appointing its advisers.

Deloitte is a founding member of the Remuneration Consultants Group and adheres to its code in relation to executive remuneration consulting. The Committee requests Deloitte to attend meetings periodically during the year and is satisfied that the advice it has received has been objective and independent.

Principal responsibilities

- Set and monitor the strategy and policy for the remuneration of Executive Directors, Chairman and members of the executive leadership team (ELT).
- Determine the design, conditions and coverage of annual incentives and LTIPs for senior executives and approve total and individual payments under the plans.
- Determine targets for any performance-related pay plans.
- Determine the issue and terms of all-employee share plans.
- Oversee any major changes in remuneration.

Areas of focus for 2018

The Committee is operating well with the members bringing a wealth of diverse experience. In 2018 in addition to our regular activities we will:

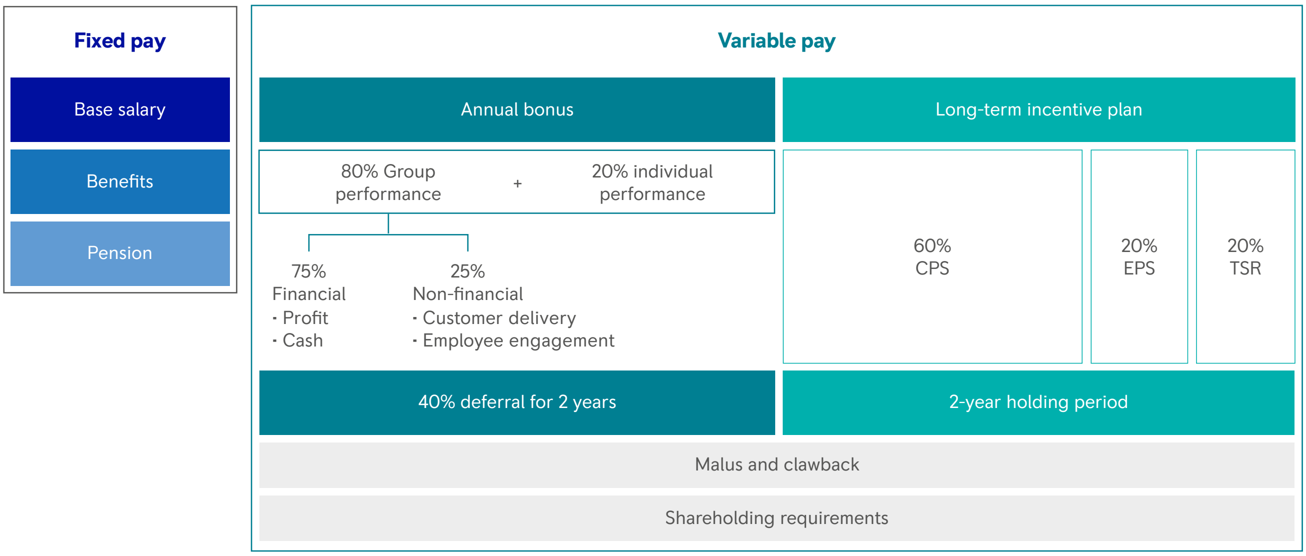
- Continue our focus on incentive measures and targets to ensure they remain aligned with strategy and performance
- Consider the forthcoming governance reforms and their impact on the Committee's remit and process
- Continue to develop our approach to engaging with employees
- With the HR function, consider how the wider reward strategy can play an even stronger role in supporting new behaviours and culture through the forthcoming business restructuring

Ruth Cairnie
Chairman of the Remuneration Committee

Remuneration Committee focus during 2017

Area of focus	Matters considered	Outcome
Remuneration policy	Gain shareholder approval for a new policy to: — better align executive reward to the transformation agenda; — improve competitiveness of the total reward package to attract and retain talent; — align executive reward with the interests of shareholders; and — introduce simplified plans that can be cascaded down the organisation	The overall reward structure was reviewed with a continued focus on pay for performance. The designs of both annual bonus and LTIPs were simplified to additive models. Performance metrics focus on the measures that will drive the business strategy and align with shareholder interests. The maximum level of LTIP award was increased to 250% for the Chief Executive and 225% for other Executive Directors. At the same time the amount vesting at threshold was reduced from 30% to 20% and an additional two-year holding period was introduced. The new policy was approved by 96% of shareholders at the 2017 AGM.
Base salaries	Review of base salaries in accordance with the remuneration policy and the broader employee context	Increase to Warren East's salary of 2% with effect from September 2017. There will be no increases for Warren East and Stephen Daintith for 2018.
Annual bonus	2017 bonus – review of performance against the 2017 bonus targets 2018 bonus – Review of measures and targets to ensure continued alignment to strategy	Warren East received a bonus of 122% of salary (68% of maximum). Stephen Daintith received a bonus of 83% of salary, equivalent to 113% of salary (75% of maximum) on a full-year basis. 40% of the awards were deferred into shares. The Committee agreed that for the 2018 bonus plan the same measures would apply as in 2017 but with more focus on free cash flow as the key performance metric. The weighting will be as follows: — Profit – 25% — Cash – 50% — Customer delivery – 12.5% — Employee engagement – 12.5% Awards will be based 80% on Group performance and 20% on individual performance. The maximum opportunities remain at 180% of salary for the Chief Executive and 150% for other Executive Directors.
Long-term incentive plan	2015 PSP – review of achievement of performance measures 2018 LTIP – setting targets that ensure significant stretch	The 2015 awards will not vest due to performance conditions not being satisfied. For 2018 grants, targets will continue to be based on CPS (60%), EPS (20%) and TSR (20%). The EPS targets for threshold, on target and maximum vesting are now based on IFRS 15 accounting. The maximum opportunities remain at 250% for the Chief Executive and 225% for other Executive Directors.
Executive Director changes	Stephen Daintith joined the Board on 7 April 2017 David Smith left Rolls-Royce on 28 February 2017 Colin Smith left Rolls-Royce on 31 May 2017	Buy-out awards were made to Stephen Daintith to compensate him for awards he forfeited on joining Rolls-Royce. Payments were made to David Smith and Colin Smith in accordance with their contractual entitlements on leaving. The Committee mitigated the payments made to David Smith in relation to his appointment at QinetiQ. Neither David Smith or Colin Smith received a bonus for 2017. Existing long-term incentive awards will be pro-rated based on service and subject to achievement of plan performance conditions at the normal vesting dates.

Summary of our remuneration policy



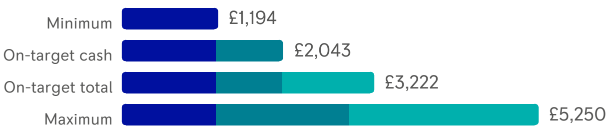
There are four key themes that underpin the policy:

- Simplification
- Stewardship
- Talent
- Supporting transformation

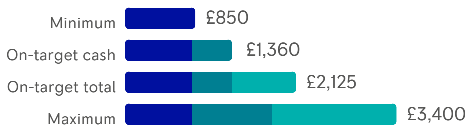
These themes continue to align to our organisational strategy and our reward programmes support them through a combination of salary, benefits, annual bonus and long-term incentives, underpinned by stretching performance measures and appropriate award levels. The full policy is in the 2016 Annual Report, available at www.rolls-royce.com.

Remuneration policy – worked examples for 2018

Chief Executive £000



Chief Financial Officer £000



■ Fixed remuneration (including salary, benefits and pension)
■ Annual bonus
■ Long-term incentive plan – this does not include share price growth

Minimum – fixed remuneration (salary, pension, benefits), no bonus award or LTIP vesting.
On-target cash – fixed remuneration, 50% of maximum bonus award, no LTIP vesting.
On-target total – fixed remuneration, 50% of maximum bonus award, 50% of LTIP vesting.
Maximum – fixed remuneration, 100% of maximum bonus award, 100% of LTIP vesting.

Shareholder voting

Results of resolutions 2 and 3 – proposed at the AGM on 4 May 2017

	For		Against		Withheld [1]
	Number of votes	%	Number of votes	%	Number of votes
Approval of the Directors' remuneration policy (resolution 2)	1,357,109,903	95.79	59,613,198	4.21	2,505,008
Approval of the Directors' remuneration report (resolution 3)	1,390,482,627	98.78	17,243,067	1.22	11,527,537

[1] Withheld votes are not counted towards the total percentage of votes cast.

Executive Directors' remuneration

The following pages 87 to 90 show how we have applied our remuneration policy during 2017 and disclose all elements of remuneration received by our Executive Directors. Details of remuneration received by our Non-Executive Directors during 2017 can be found on pages 95 and 96.

Executive Directors' single figure of remuneration (audited)

	Fixed pay						Variable pay							
	Salary (a) £000		Benefits (b) £000		Pension (c) £000		Bonus (d) £000		Long-term incentives (e) £000		Other (f) £000		Total remuneration £000	
	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016
Executive Directors														
Warren East	**931**	925	**17**	17	**233**	231	**1,150**	916	**–**	–	**–**	–	**2,331**	2,089
Stephen Daintith [1]	**499**	–	**15**	–	**110**	–	**565**	–	**1,259**	–	**–**	–	**2,448**	–
Former Executive Directors														
Colin Smith [2]	**229**	550	**63**	156	**73**	176	**–**	413	**–**	–	**418**	–	**783**	1,295
David Smith [3]	**90**	540	**9**	51	**29**	173	**–**	405	**–**	–	**124**	–	**252**	1,169
Total	**1,749**	2,015	**104**	224	**445**	580	**1,715**	1,734	**1,259**	–	**542**	–	**5,814**	4,553

[1] Stephen Daintith took up his role at Rolls-Royce on 7 April 2017. The LTIP awards which vested in 2017 represent part of his buy-out awards – see page 90.
[2] Colin Smith left Rolls-Royce on 31 May 2017. He received a payment totalling £469k in respect of the remainder of his contractual notice period of which £418k was paid in 2017.
[3] David Smith left Rolls-Royce on 28 February 2017.

a) Salary

The Company provides competitive salaries suitable to attract and retain individuals of the right calibre to develop and execute the business strategy. The Committee reviewed Warren East and Stephen Daintith's salary in early 2018 and agreed there would be no increases for 2018.

Executive Director	Base salary as at 1 March 2018	Base salary as at 1 September 2017	Base salary as at 1 March 2016
Warren East	**£943,500**	£943,500	£925,000
Stephen Daintith (appointed 7 April 2017)	**£680,000**	£680,000	–

b) Executive Directors' benefits (audited)

Benefits are provided to ensure that remuneration packages remain sufficiently competitive to attract and retain individuals of the right calibre to develop and execute the business strategy and to enable them to devote themselves fully to their roles. The taxable value of all benefits paid to Executive Directors during 2017 is shown below.

	Car or car allowance inc. fuel allowance £000		Financial planning £000		Medical insurance £000		Travel and subsistence £000		Accommodation costs £000		Total £000	
Executive Directors	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016
Warren East	**15**	15	**–**	–	**2**	2	**–**	–	**–**	–	**17**	17
Stephen Daintith [1]	**13**	–	**–**	–	**1**	–	**1**	–	**–**	–	**15**	–
Former Executive Directors												
Colin Smith [2]	**13**	30	**5**	6	**–**	2	**3**	7	**42**	111	**63**	156
David Smith [3]	**4**	28	**–**	–	**–**	2	**3**	6	**2**	15	**9**	51
Total	**45**	73	**5**	6	**3**	6	**7**	13	**44**	126	**104**	224

[1] Stephen Daintith took up his role at Rolls-Royce on 7 April 2017.
[2] Colin Smith left Rolls-Royce on 31 May 2017.
[3] David Smith left Rolls-Royce on 28 February 2017.

c) Pension entitlements (audited)

The Company provides competitive pension arrangements suitable to attract and retain individuals of the right calibre to develop and execute the business strategy. Executive Directors are offered membership of a defined contribution pension plan. A cash allowance may be payable in lieu of pension contributions, reduced to allow for additional National Insurance incurred. Warren East receives a cash allowance of 25% and Stephen Daintith receives a cash allowance of 22% of salary in lieu of pension accrual. The Group's UK pension schemes are funded, registered schemes and were approved under the regime applying until 6 April 2006. They include both defined contribution and defined benefit pension schemes and there is now only one defined benefit pension plan, the 'Rolls-Royce UK Pension Fund'. None of the current Directors is a member of this plan. Colin Smith, who left the Group on 31 May 2017, started to receive his pension on 1 December 2016.

d) Annual bonus outturn (audited)

The Company's annual bonus scheme is designed to incentivise the execution of the business strategy, delivery of financial targets and the achievement of personal objectives. Executive Directors receive any annual bonus awarded in March following the performance period. 60% of the bonus is paid in cash with the remaining 40% awarded in deferred shares. Deferred shares are held in trust for two years before being released, subject to the recipient still being employed by the Group and include the right to receive an amount equal in value to the C shares issued during the deferral period. The annual maximum for the Chief Executive is 180% of salary and 150% for the other Executive Director(s):

— 80% of the award is based on Group performance

— 20% of the award is based on individual performance

The Committee retains overriding discretion on the outturns of the annual bonus.

Malus and clawback provisions apply where there has been: a material misstatement of audited results; serious financial irregularity which invalidates the targets set; reputational damage; material failure of risk management; a serious breach of the Group's Global Code of Conduct; or individual gross misconduct. Clawback will apply from the date of deferral until three years after the release of shares.

2017 annual bonus outturn

The Committee reviewed the 2017 outturn against the performance measures; 80% of annual bonus is based on Group performance and 20% is based on individual performance. The Group performance measures are shown below:

	Profit	Cash	Customer delivery	Employee engagement	Total
Weighting	37.5%	37.5%	12.5%	12.5%	100%
Base (25%)	£813m	(£207m)	80%	75	
Target (50%)	£953m	£93m	90%	77	
Maximum (100%)	£1,096m	£393m	100%	79	
2017 performance [1]	£1,062m	£255m	91%	75	
% of maximum	**88%**	**77%**	**56%**	**25%**	**72%**

[1] For the purposes of assessing performance the Committee adjusted the underlying profit and free cash flow to reflect unbudgeted foreign exchange movements and the greater than budgeted benefit from the R&D capitalisation policy.

Definitions used for performance measures:

Profit – underlying profit before tax that is reported by the Group for 2017, adjusted for unbudgeted acquisitions and disposals.

Cash – free cash flow which is cash flow before acquisitions and disposals, shareholder payments, foreign exchange and share buybacks.

Customer delivery – % on-time to purchase order, measured for new equipment, spare parts or equipment repair and overhaul.

Employee engagement – measured through our long-standing global employee opinion survey. 59% of our people participated in our survey in 2017 and our sustainable engagement score was 75.

Individual performance

Executive Directors have 20% of their bonus based on achievement of their personal objectives. Personal performance objectives are set at the beginning of the year and are aligned with the Group's internal strategic priorities.

For Executive Directors these have included:

- Sustain the transformation programme
- Build a strong and effective ELT
- Review the Group vision and strategy and portfolio
- Develop the medium term plan to achieve strategic goals and a focus on safety, cash and people
- Embed a simpler organisation with accountable, engaged and empowered people
- Improve management information systems to provide visibility on business economics and costs
- Develop clear plans and objectives on diversity

The Committee assesses performance against the objectives. The overall assessed percentage is based on the Committee's judgement and may include other factors and achievements in the year.

The following provides an overview of key achievements during the year for each Executive Director:

Warren East	Stephen Daintith
Delivered savings from the 2015 transformation programme at the top end of expectations	Delivered a step change in the performance of the finance function, strengthening leadership and transformation capability
Reshaped the ELT and improved its effectiveness	Significantly improved financial planning and analysis to provide better understanding of Group performance and its drivers
Delivered strong strategic progress including the successful launch of three new engines – Trent 1000 TEN, Trent 7000 and Trent XWB-97	Led medium term planning process across the Group to deliver a significant increase in free cash flow by 2020, increased focus on cost reduction and simplification of processes
Developed the new Group vision and strategy with enhanced focus on underlying technology for the future (electrical and digital). Re-organised the engineering & technology function to move more engineering closer to our customers	Successfully prepared for the introduction and implications of IFRS 15 both internally and externally
Undertook a strategic review of the Group resulting in the planned restructure into three operating businesses	Significantly improved market communications with greater clarity over key cash flow drivers

2017 annual bonus outturn (paid in March 2018)

	Group performance (% of salary)	Individual Performance (% of salary)	Total bonus (% of salary)	Total bonus (% of maximum)
Warren East	104%	18%	122%	68%
Stephen Daintith [1]	64%	19%	83%	55%

[1] The bonus received by Stephen Daintith was reduced pro-rata to reflect his joining date of 7 April 2017. The full year equivalent would have been 113% of salary and 75% of maximum.

e) Long-term incentives (audited)

Awards are made to Executive Directors under the LTIP to reward the execution and development of the business strategy over a multi-year period.

LTIP awards made in May 2017

The performance targets for awards made in May 2017 are shown below. Performance will be measured over three years to 31 December 2019.

	CPS (60%)	EPS (20%)	Relative TSR (20%)
Threshold (20% vesting)	60p	115p	Median
Mid (50% vesting)	80p	135p	Between median and upper quartile
Maximum (100% vesting)	110p	160p	Upper quartile

	Number of shares	% of salary	Face value of award £000	Performance period end date
Warren East	281,954	250	2,312	31 December 2020
Stephen Daintith	186,547	225	1,530	31 December 2020

PSP awards vesting in March 2018

The following sets out details in respect of the March 2015 PSP award (made under the 2014 remuneration policy) for which the final year of performance was the 2017 financial year. Subject to performance conditions, the vesting date of these awards is March 2018, three years after the awards were made.

	Targets for 2015-2017 period	Performance against targets
EPS growth (hurdle)	Awards will vest if EPS growth exceeds the OECD index of consumer prices. Awards will lapse if the hurdle is not met.	EPS growth of -39.4% over the three-year period underperformed the hurdle which was 4.1%.
Aggregate CPS	Aggregate CPS over three-year period of less than 60p – zero vesting. Aggregate CPS over three-year period of 100p – 100% vesting.	Aggregate CPS performance over three-year period of 26p.
Relative TSR	Relative TSR versus FTSE 100 constituents less than median – 1.0 x multiplier. Relative TSR versus FTSE 100 constituents equal to median – 1.25 x multiplier. Relative TSR versus FTSE 100 constituents equal to upper quartile – 1.5 x mulitplier.	Relative TSR over the three-year period was below median.
Outturn		**None of the 2015 awards will vest in March 2018.**

There are also outstanding awards, made under the Rolls-Royce Performance Share Plan (PSP), which were agreed prior to the approval of the LTIP at the AGM in 2017. These include awards made to Stephen Daintith to compensate for unvested incentives awarded to him at Daily Mail & General Trust plc (DMGT) which were forfeited as a result of him joining Rolls-Royce. The awards shown below are of equivalent value to the DMGT awards forfeited and reflect performance conditions and match or exceed the time horizons. Awards vesting in 2019 will be assessed against the 2016 PSP performance conditions.

PSP awards made to Stephen Daintith in May 2017

Number of shares	Face value of award £000	Vesting conditions	Vesting date	Outturn %
118,103	891	Determined by the extent to which DMGT awards vest	31 October 2017	100
14,792	112	Continued employment and good level of personal performance	31 December 2017	100
70,027	528	Determined by the Company's performance between 1 January 2016 and 31 December 2018	1 March 2019	
79,726	602	Determined by the Company's performance between 1 January 2016 and 31 December 2018	31 October 2019	

Malus and clawback provisions apply where there has been: a material misstatement of audited results; serious financial irregularity which invalidates the targets set; reputational damage; material failure of risk management; a serious breach of the Group's Global Code of Conduct; or individual gross misconduct. These provisions will apply from the date of the award until three years from the date of vesting.

All awards under the 2017 LTIP are subject to a further two-year holding period after the three-year performance period. The holding period will normally continue to apply post-employment.

f) Other (audited)

Payments for loss of office

David Smith left the Group on 28 February 2017 and Colin Smith on 31 May 2017. Neither received a bonus award for 2017.

David Smith served six months of his 12 months' notice and received a payment in lieu of notice in relation to the remaining six months of his notice period, paid in monthly instalments. The Committee reduced these payments to account for his remuneration with QinetiQ resulting in total payments of £124k (which included unpaid holiday entitlement).

Colin Smith, having served four months of his 12 months' notice, received total payments of £469k in lieu of notice payable to him in eight instalments. Seven of these instalments, totalling £418k, were paid to him in 2017. The final instalment, which related to the last month of his notice period, was paid in January 2018. Outplacement support has also been provided.

Both will retain pro-rated PSP awards, granted prior to leaving, subject to the Company meeting the performance targets for those awards and subject to and in accordance with the rules of the plan. Shares will only be released on the normal vesting dates.

Payments to past directors

Colin Smith stepped down from the Board on 4 May 2017 and left the Group on 31 May 2017. A short-term agreement was put in place to represent the Company in an ambassadorial capacity for a maximum of 15 days to the end of 2017 and 35 days to the end of 2018. The 15 days that Colin carried out this role in 2017 will be paid in 2018.

Implementation of remuneration policy in 2018

Base salary	There will be no change to base salary for 2018; base salaries remain as: — Warren East – £943,500 — Stephen Daintith – £680,000
Benefits	There will be no change to our approach to benefits in 2018, which includes car or car allowance, financial planning assistance, insurances and other benefits.
Pensions	There will be no change to our approach to pensions in 2018. Pension arrangements will be: — Warren East: cash allowance of 25% of salary — Stephen Daintith: cash allowance of 22% of salary
Annual bonus	For 2018, bonuses will continue to be awarded using a simple additive approach: — 80% of the award will be based on Group performance — 20% of the award will be based on individual performance For 2018, the Group measures will be unchanged, however there will be an increased weighting to free cash flow to emphasise this as the key performance metric for 2018: Profit (25%) – Free cash flow (50%) – Customer delivery (12.5%) – Employee engagement (12.5%) Maximum opportunities will remain unchanged: — Chief Executive – 180% of salary — Other Executive Directors – 150% of salary
LTIP awards	For awards to be granted in 2018 performance measures will be weighted: — 60% on CPS — 20% on EPS — 20% on relative TSR (versus FTSE 100 and Global S&P Index, to recognise that Rolls-Royce is a global company). Performance will be measured over three years to 31 December 2020. Performance targets will be:

	CPS	EPS IFRS 15 basis [1]	Relative TSR
Threshold (20% vesting)	95p	73p	Median
Mid (50% vesting)	126p	86p	Between median and upper quartile
Maximum (100% vesting)	158p	103p	Upper quartile

[1] EPS is now based on IFRS 15 accounting which is a different basis from prior years' targets.

Performance below threshold will result in that element lapsing in full.
The above targets are not an indication of forecast numbers for the three-year period.

Methodologies
CPS – calculated as reported cash flow before the cost of business acquisitions or proceeds of disposals, foreign exchange translation effects, special payments into pension schemes and payments to shareholders, divided by the weighted average number of shares in issue. CPS is cumulative over a three-year period. The Committee will review CPS performance to ensure that it is a fair reflection of achievements over the period.
EPS – calculated as cumulative absolute underlying EPS over the three-year performance period on an IFRS 15 basis.
Relative TSR – measured 50% against the constituents of the FTSE 100 and 50% against the constituents of the S&P Global Industrials index.

Award sizes for maximum performance
— Chief Executive: 250% of salary
— Other Executive Directors: 225% of salary
Threshold vesting at 20% equates to 50% of salary for the Chief Executive and 45% of salary for other Executive Directors. LTIP awards will be subject to an additional shareholding period of two years following the three-year performance period.

Other information

Executive Directors' share interests (audited)

The Directors and their connected persons hold the following interests in the ordinary shares of the Company:

	Ordinary shares		Conditional shares not subject to performance conditions (Deferred share bonus)	Conditional shares subject to performance conditions (PSP)	Conditional shares subject to performance conditions (LTIP)	Options over shares subject to savings contract (Sharesave)
	31 December 2017	6 March 2018	31 December 2017	31 December 2017	31 December 2017	31 December 2017
Warren East	25,733	25,868	47,398	290,845	281,954	1,264
Stephen Daintith	70,433	70,433	–	149,753	186,547	925

Executive Directors' interests in vested and unvested shares – changes in 2017 (audited)

Warren East	31 December 2016	Granted during the year	Vested awards	Lapsed awards	31 December 2017	Market price at date of award (p)	Date of grant	Date of vesting	Market price at vesting (p)
PSP 2015	126,643	–	–	–	126,643	730.00	01/09/15	01/09/18	–
PSP 2016	164,202	–	–	–	164,202	676.00	01/03/16	01/03/19	–
Total	**290,845**	**–**	**–**	**–**	**290,845**	**–**	**–**	**–**	**–**
LTIP 2017 [1]	–	281,954	–	–	**281,954**	820.17	05/05/17	04/05/20	–
Deferred share bonus	–	47,398	–	–	**47,398**	772.83	01/03/17	01/03/19	–
Sharesave (options) [2]	1,264	–	–	–	**1,264**	616.80	12/10/15	01/02/21	–

Stephen Daintith	31 December 2016	Granted during the year	Vested awards	Lapsed awards	31 December 2017	Market price at date of award (p)	Date of grant	Date of vesting	Market price at vesting (p)
PSP 2017 (buy-out award) [3]	–	118,103	118,103	–	–	754.70	01/03/17	31/10/17	961.00
PSP 2017 (buy-out award) [3]	–	14,792	14,792	–	–	754.70	01/03/17	31/12/17	840.80
PSP 2017 (buy-out award) [3]	–	70,027	–	–	70,027	754.70	01/03/17	01/03/19	–
PSP 2017 (buy-out award) [3]	–	79,726	–	–	79,726	754.70	01/03/17	31/10/19	–
Total	**–**	**282,648**	**132,895**	**–**	**149,753**	**–**	**–**	**–**	**–**
LTIP 2017 [1]	–	186,547	–	–	**186,547**	820.17	05/05/17	04/05/20	–
Sharesave (options) [2]	–	925	–	–	**925**	758.40	13/10/17	01/02/21	–

[1] The LTIP grant price is the average of the closing mid-market price calculated over 2, 3 and 4 May 2017.
[2] For Sharesave, the price shown is the exercise price which was 85% of the market price at the date of the award.
[3] The grant price for PSP awards made to Stephen Daintith was the average closing mid-market price calculated over one month, up to 22/09/16 (the date that his appointment to Rolls-Royce was announced). The exercise of the PSP award vesting on 31/12/17 took place on 02/01/18. More information on these awards is on page 90.

Shareholding requirement

Executive Directors are required to work towards holding beneficially-owned shares equivalent in value to a percentage of their salary by retaining at least one half of after-tax shares released from the PSP/LTIP until this requirement is met. For the Chief Executive this requirement is 250% of salary and for other Executive Directors this requirement is 200% of salary. The current shareholdings, as a percentage of the requirement, for Warren East and Stephen Daintith are 26% and 42% respectively.*

* The percentage of the requirement was calculated by reference to the May 2017 LTIP grant price and salary as at date of grant. Unvested PSP awards, LTIP awards and Sharesave options are not included in this calculation.

Former Executive Directors' share interests

At the time of leaving Rolls-Royce, former Executive Directors and their connected persons held the following interests in the ordinary shares of the Company:

Colin Smith – 224,370 ordinary shares (as at 31 May 2017)

David Smith – 42,367 ordinary shares (as at 28 February 2017)

Former Executive Directors' interests in vested and unvested shares – changes in 2017

Colin Smith	31 December 2016	Granted during the year	Vested awards	Lapsed awards	31 December 2017	Market price at date of award (p)	Date of grant	Date of vesting	Market price at vesting (p)
PSP 2014	53,336	–	–	(53,336)	0	984.33	07/05/14	03/03/17	–
PSP 2015 [1]	58,263	–	–	–	58,263	944.00	02/03/15	02/03/18	–
PSP 2016	81,361	–	–	–	81,361	676.00	01/03/16	01/03/19	–
Total	**192,960**	**–**	**–**	**(53,336)**	**139,624**	**–**	**–**	**–**	**–**
Sharesave (options) [2]	758	–	–	758	–	616.80	12/10/15	–	–

David Smith	31 December 2016	Granted during the year	Vested awards	Lapsed awards	31 December 2017	Market price at date of award (p)	Date of grant	Date of vesting	Market price at vesting (p)
PSP 2014	18,287	–	–	(18,287)	0	984.33	03/03/14	03/03/17	–
PSP 2015 [1]	57,204	–	–	–	57,204	944.00	02/03/15	02/03/18	–
PSP 2016	79,882	–	–	–	79,882	676.00	01/03/16	01/03/19	–
Total	**155,373**	**–**	**–**	**(18,287)**	**137,086**	**–**	**–**	**–**	**–**
Sharesave (options) [2]	758	–	–	758	–	616.80	12/10/15	–	–

[1] The 2015 PSP award lapsed on 2/3/2018.
[2] For Sharesave, the price shown is the exercise price which was 85% of the market price at the date of the award.

Pay across the organisation

This section of the report enables our remuneration arrangements to be seen in context by providing:

— a comparison of the year-on-year percentage change in our Chief Executive's remuneration with the change in average remuneration across the UK;

— a year-on-year comparison of the total amount spent on employment costs across the Group and shareholder payments;

— a nine-year history of our Chief Executive's remuneration;

— our TSR performance over the same period; and

— an indication of the ratio between our Chief Executive's remuneration and the remuneration of employees.

Percentage change in Chief Executive remuneration

The following table compares the percentage change in the Chief Executive's salary, bonus and benefits (excluding LTIP) to the average percentage change in salary, bonus and benefits for all UK employees from 2016 to 2017.

Change in remuneration

	Salary	Benefits	Annual bonus
Chief Executive	2%	0%	25.6%
UK employees average [1]	2.3%	5%	2.1%

[1] UK employees were chosen as a comparator group in order to avoid the impact of exchange rate movements over the year. UK employees excluding apprentices, graduates and interns, make up 45% of the total employee population.

Chief Executive pay ratio

The Committee is mindful of the relationship between the remuneration of the Chief Executive and the wider employee population. All employees participate in a bonus plan. We also encourage all employees to join our Sharesave plan, launched every two years. For our recent launch around 50% of our employees globally joined the plan, sharing in 14 million shares/stock appreciation rights. Included below is the ratio of the remuneration of the Chief Executive to other UK employees in the Group during 2017. The ratio will be higher when Group performance triggers incentive pay-outs. The ratio could vary significantly depending on the extent that the Group's performance triggers the payment of short and long-term incentives.

CEO pay ratio (total remuneration)	CEO pay ratio (pay only)
41:1	21:1

Relative spend on pay

The following chart sets out the percentage change in payments to shareholders and overall expenditure on pay across the Group.

Payment to shareholders (£m) *

(Consolidated Cash Flow Statement)

Group employment costs (£m)

(Note 7 – Consolidated Financial Statements)

* Value of C Shares issued during the year.
** Includes £306m costs of restructuring the UK defined benefit pension schemes.

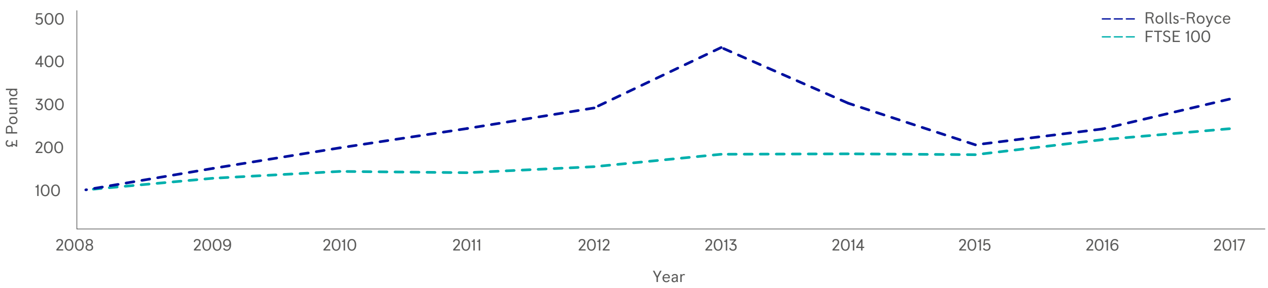
Chief Executive pay

Year	Chief Executive [1]	Single figure of total remuneration £000	Annual bonus as a % of maximum	LTIP as a % of maximum
2017	Warren East	2,331	68	–
2016	Warren East	2,089	55	–
2015	Warren East	543	0	–
2015	John Rishton	754	0	–
2014	John Rishton	2,596	0	45
2013	John Rishton [2]	6,228	55	100
2012	John Rishton [2]	4,577	85	–
2011	John Rishton	3,677	63	–
2011	Sir John Rose [3]	3,832	–	75
2010	Sir John Rose	3,914	100	100

1 On 31 March 2011, Sir John Rose retired and John Rishton was appointed. John Rishton retired on 2 July 2015 and Warren East was appointed as Chief Executive on 3 July 2015.
2 John Rishton received a special grant of shares on joining the Company on 1 March 2011 to mirror the shares he forfeited on resigning from his previous employer. The share price had increased from 483.50p at the time this grant was made to 870p at the end of 2014. These are the main reasons why John Rishton's remuneration in 2012 and 2013 exceeded that of his predecessor.
3 The remuneration for Sir John Rose does not include any pension accrual or contribution as he received his pension from 1 February 2008.

TSR performance

The Company's TSR performance over the previous nine years compared to a broad equity market index is shown in the graph below. The FTSE 100 has been chosen as the comparator because it contains a broad range of other UK-listed companies. The graph shows the growth in value of a hypothetical £100 holding in the Company's ordinary shares over nine years, relative to the FTSE 100 index.



Gender pay reporting

The Company is committed to creating a diverse and inclusive place to work where our people can be themselves and be at their best. We published our gender pay gap in November 2017, which showed:

Overall, women currently represent 15% of Rolls-Royce UK employees. Women are less well-represented than this figure in the higher pay quartiles due to proportionally more men being in senior level roles. Increasing the number of women in our business and moving towards a more balanced distribution of men and women across all levels is very important. We are making progress on this in many ways, such as increasing the proportion of women in our apprentice and graduate intakes. More details are available on page 47 and at www.rolls-royce.com.

Contractual arrangements

The Executive Directors have service agreements that set out the contract between each Executive Director and the Company.

Executive Directors' service contracts

	Date of contract	Notice period from Company	Notice period from individual
Warren East	21 April 2015	12 months	6 months
Stephen Daintith	21 September 2016	12 months	12 months

Payments received for serving on external boards

Executive Directors retain payments received from serving on the boards of external companies, the details of which are given below:

	Directorships held	Payments received and retained £000
Warren East	Dyson James Group Limited	80
Stephen Daintith	3i Group plc	75

Non-Executive Directors' remuneration

Single figure of remuneration (audited)

	Fees (£000)		Benefits (£000)		Total (£000)	
Chairman and Non-Executive Directors	**2017**	2016	**2017**	2016	**2017**	2016
Ian Davis	**425**	425	**2**	2	**427**	427
Lewis Booth [1]	**95**	100	**69**	14	**164**	114
Ruth Cairnie	**90**	83	**4**	2	**94**	85
Sir Frank Chapman	**90**	90	**4**	2	**94**	92
Irene Dorner	**70**	70	**–**	–	**70**	70
Beverly Goulet [2]	**35**	–	**11**	–	**46**	–
Lee Hsien Yang	**70**	70	**3**	3	**73**	73
Brad Singer	**70**	58	**20**	–	**90**	58
Sir Kevin Smith	**105**	98	**5**	2	**110**	100
Jasmin Staiblin	**70**	70	**7**	4	**77**	74
Former Non-Executive Directors						
Dame Helen Alexander	**–**	31	**–**	–	**–**	31
Alan Davies	**–**	62	**–**	1	**–**	63
John McAdam [3]	**24**	70	**–**	–	**24**	70
Total	**1,144**	1,227	**125**	30	**1,269**	1,257

[1] The tax treatment of travel expenses incurred by Lewis Booth, while travelling to and from the UK, changed in May 2016 (five years after his date of appointment and in accordance with HMRC rules). This change is reflected in the value of benefits reported.
[2] Beverly Goulet joined the Board on 3 July 2017.
[3] John McAdam stepped down from the Board on 4 May 2017 after completing nine years.

Non-Executive Directors' fees

The Chairman's fee is reviewed by the Board as a whole on the recommendation of the Committee. The review of the other Non-Executive Directors' base fees is reserved to the Executive Directors, who consider recommendations from the Chairman. No individual may be involved in setting his or her own fee. The Chairman and the Non-Executive Directors are not eligible to participate in any of the Group's share schemes, incentive arrangements or pension schemes. A facility is in place which enables Non-Executive Directors (who reside in a permitted dealing territory) to use some or all of their fees, after the appropriate statutory deductions, to make market purchases of shares in the Company on a monthly basis. Ruth Cairnie, Sir Frank Chapman, Ian Davis, Lee Hsien Yang and Sir Kevin Smith use this facility.

Non-Executive Directors' fees

	2018 £000	2017 £000	2016 £000
Chairman	**425**	425	425
Other Non-Executive Directors base fee	**70**	70	70
Chairman of the Audit Committee	**25**	25	25
Chairman of the Remuneration Committee	**20**	20	20
Chairman of the Safety & Ethics Committee	**20**	20	20
Chairman of the Science & Technology Committee	**20**	20	20
Senior Independent Director	**15**	15	15

Non-Executive Directors' benefits (audited)

The benefits for Non-Executive Directors relate predominantly to travel, hotel and subsistence incurred in attending meetings. For Non-Executive Directors based outside the UK the Company may also pay towards tax advice and the cost of making tax filings.

Non-Executive Directors' share interests (audited)

The Non-Executive Directors and their connected persons hold the following interests in the ordinary shares of the Company:

Chairman and Non-Executive Directors	31 December 2017	6 March 2018
Ian Davis	57,436	58,141
Lewis Booth	60,000	60,000
Ruth Cairnie	14,097	14,626
Sir Frank Chapman	27,798	28,733
Irene Dorner	10,244	10,297
Beverly Goulet	4,250	4,272
Lee Hsien Yang	5,482	5,742
Brad Singer	–	–
Sir Kevin Smith	24,701	25,451
Jasmin Staiblin	–	–

Former Non-Executive Director	4 May 2017	
John McAdam (balance at date of stepping down from the Board)	3,362	n/a

Non-Executive Directors' letters of appointment

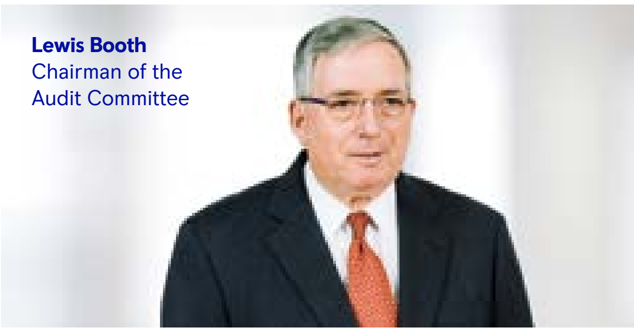
Our Non-Executive Directors serve a maximum of three, three-year terms (nine years in total).

Chairman and Non-Executive Directors	Original appointment date	Current letter of appointment end date
Ian Davis	1 March 2013	28 February 2019
Lewis Booth	25 May 2011	24 May 2020
Ruth Cairnie	1 September 2014	31 August 2020
Sir Frank Chapman	10 November 2011	9 November 2020
Irene Dorner	27 July 2015	26 July 2018
Beverly Goulet	3 July 2017	2 July 2020
Lee Hsien Yang	1 January 2014	31 December 2019
Brad Singer	2 March 2016	3 May 2018
Sir Kevin Smith	1 November 2015	31 October 2018
Jasmin Staiblin	21 May 2012	20 May 2018

Statutory requirements

The Committee's composition, responsibilities and operation comply with the principles of good governance, as set out in the UK Corporate Governance Code with the Listing Rules (of the Financial Conduct Authority) and with the Companies Act 2006. The Directors' remuneration report has been prepared on the basis prescribed in the Large and Medium-sized Companies and Groups (Accounts and Reports) (Amendment) Regulations 2013.

Audit Committee Report



Lewis Booth
Chairman of the Audit Committee

Key highlights

- Focus on business and functional risks
- Preparations complete for the implementation of IFRS 15 *Revenue from Contracts with Customers*
- Continued strengthening of the control environment
- PwC confirmed its independence ahead of appointment in 2018 and transition progressing

Introduction

I am pleased to present the 2017 report of the Audit Committee which describes how the Committee has carried out its responsibilities during the year. I would like to thank the members of the Committee, the executive management team and KPMG for the open discussions that take place at our meetings and the importance they all attach to its work.

The Group has complex long-term accounting and every year we spend much of our time reviewing the accounting policies and accounting judgements implicit in our financial results. For 2017, this work has been compounded by preparing for the change in revenue recognition under IFRS 15, which has a major impact on the presentation of the accounts; management has been pro-active in analysing the effect of this new standard and providing input to the market on its impact, and we are satisfied that the interpretation, judgements, and estimates for IFRS 15 are appropriate. In addition, we reviewed the plans to implement IFRS 9 *Financial Instruments* from 2018.

As a result of the audit tender completed in 2016, we have been preparing for the appointment of PricewaterhouseCoopers LLP (PwC) as the Company's new auditor in 2018. This has required a significant effort to reassign work from PwC to ensure that they are independent, and I am delighted that they achieved this in October. The management team has introduced effective controls to ensure that PwC (and KPMG until the completion of their audit responsibilities) maintain their independence.

2017 has also seen the finance team strengthened at the senior level. Significant progress has been made in financial analysis and reporting and in the supporting management information systems. This has provided additional support for the Committee's work.

For 2018, work will continue to strengthen the control environment (including recommendations arising from the DPAs), review of all key accounting judgements, as well as reviewing the progress on IFRS 16 *Leases* which takes effect from 2019.

Operation of the Committee

All members of the Committee are independent Non-Executive Directors. Beverly Goulet joined the Committee on 3 July 2017. For the purposes of the Code and DTR 7.1, Beverly Goulet, Irene Dorner and I have recent and relevant financial experience. Our biographies are on page 67.

The Committee's responsibilities are outlined in its terms of reference, which can be found at www.rolls-royce.com, which we review annually and refer to the Board for approval. During 2017, we made an amendment to cover the revised Provision C.3.1 of the Code that requires the Committee, as a whole, to have competence relevant to the sector in which the Company operates, which the Nominations & Governance Committee confirmed is already the case.

Committee members

Member	Attended	Eligible to attend
Lewis Booth (chairman)	5	5
Irene Dorner	5	5
Beverly Goulet	3	3
Lee Hsien Yang	5	5

Principal responsibilities

Financial reporting

- Financial announcements, focusing on:
  - accounting policies, judgements and estimates;
  - inclusion of appropriate disclosures;
  - compliance with relevant regulations; and
  - whether the Annual Report is fair, balanced and understandable.

Risk and control environment

- Scope and effectiveness of the risk management system.
- Monitoring of financial fraud risks.
- Systems of internal control.

Principal risks

- Business continuity, market and financial shock, and IT vulnerability.

Internal audit

- Scope, resources, results and effectiveness.

External auditor

- Relationship with, and effectiveness of, the external auditor.
- Recommendations to the Board for the external auditor's appointment and fees.

Audit Committee focus during 2017

Area of focus	Matters considered	Outcome
Financial reporting	The appropriateness and disclosure of accounting policies, key judgements and key estimates with a focus on: — the methodology for capitalisation and amortisation of development costs; — carrying value of goodwill in Marine; — treatment, estimation and disclosure of costs in Civil Aerospace for the remediation of in-service issues on the Trent 1000 and Trent 900 programmes; — restructuring costs; and — acquisition of ITP Aero. The implementation projects for IFRS 9, IFRS 15 and IFRS 16. In particular, the preparation of the restated information on an IFRS 15 basis which is included in notes 1 and 27 to the Consolidated Financial Statements. The form and content of the Annual Report.	The accounting policies, judgements and estimates are appropriate and balanced. Agreed the judgements and estimates to adopt IFRS 9. IFRS 15 interpretations, judgements and estimates made are appropriate. Agreed the approach being taken to implement IFRS 16 (see page 132). The Annual Report, taken as a whole, is fair, balanced and understandable.
Risk and control environment	Continued improvements to the enterprise risk management and internal controls systems, including a focus on core financial controls, and risks at remote locations. The processes for identifying and managing risks. The model for assessing the effectiveness of the Group's systems of internal control. The process and assumptions underlying the going concern and viability statements.	The internal control system meets the requirements of the Code. It will continue to be enhanced during 2018, including extending the documentation of internal controls to include compliance controls relating to the DPAs. Reported to the Board that an appropriate process is in place to make the viability statement.
Principal risks	Management's assessment of the risk of a business continuity event. The procedures for preventing, monitoring and combatting breaches of the security of the Group's IT systems. The Group's policies, procedures and controls for identifying, managing and mitigating a market shock.	Appropriate procedures are in place to identify and manage principal risks and all of these have been subject to a review by the Board or an appropriate Board committee. Appropriate procedures are in place to manage business continuity, cyber security and market shock risks.
Internal audit	The effectiveness of the internal audit function, its key findings and trends arising, and the resolution of these matters.	The scope and extent of internal audit are appropriate and the function remains effective.
External audit	The approach and scope of external audit and the effectiveness and independence of the external auditor. The extent of non-audit services provided by KPMG. The transition to PwC as auditor in 2018.	Assessed KPMG as effective and independent. No concerns over the nature and amount of the non-audit services provided by KPMG. Recommended that PwC be appointed as the Group's auditors at the 2018 AGM. Monitored the procedures to ensure that PwC became independent of the Group in October 2017 and approved enhanced policies to maintain this.

Sector audit committees

To strengthen the ownership of accounting policies and controls, and to support our work, each of the Group's businesses and principal functions has its own sector audit committee. These committees are chaired by the director of internal audit, comprise business functional leaders and senior finance personnel and are attended by KPMG. They meet twice a year and:

— review the application of accounting policies, judgements and estimates;
— review risk management, internal control systems and issues arising at a more detailed level;
— give us further assurance as to the extent of management control and accountability;
— promote the governance culture within the Group; and
— inform areas for further consideration at our meetings.

The director of internal audit reported to this Committee on key matters arising and also provided updates on the work and effectiveness of the sector audit committees during the year.

In 2017, the sector audit committees continued to focus on the improvement projects for internal control and risk management process, in particular the embedding of these in our normal operational processes.

Members of the Committee attended at least one sector audit committee each, and we are satisfied that this process is now owned by the business and is helping to improve our risk management and the control environment.

Business and function presentations

In addition to a regular review of the sector audit committee process and any key issues identified, we have a regular schedule of presentations from each of the Group's businesses and its key functions. During 2017, we received presentations from the following:

— **Civil Aerospace** – key business risks (focusing on new programme introductions, ramp-up in production and in-service product issues); supply chain resilience; internal control environment (including financial analysis, the implementation of IFRS 15 in 2018 and planning and forecasting capability to reflect the business growth); and accounting policies, judgements and estimates.

— **Power Systems** – key accounting estimates (including warranty provisions and the impact of the transformation programme); key business risks (including regulatory compliance, competitive position, and transformation programmes); and the control environment.

— **Nuclear** – key accounting estimates (which principally relate to accounting for long-term contracts and are affected by the changing contractual arrangements with the UK MoD); key business risks (including government relations, programme delivery, IT security, and safety of nuclear facilities and products); future of civil nuclear markets; and the control environment.

— **Group tax director** – the main drivers of the Group's tax position and key tax risks and how they are managed (with specific consideration of tax disputes); key tax law developments and new requirements (in particular the new UK corporate offence of 'failure to prevent the facilitation of tax evasion'); key sources of estimation uncertainty (in particular the recognition of deferred tax assets); and key tax-related disclosures.

Financial reporting

During the year, we considered proposals for revisions to the methodologies applied to determine when development costs should be capitalised and how they should be amortised. These are described in more detail on pages 124 and 128. The Committee agreed that the experience on the significant number of new programmes in the Civil Aerospace business and changes in the way in which technical risk is being managed on these programmes indicated that the criteria for the capitalisation of development costs were generally met at an earlier stage than has previously been assessed, and that costs eligible for capitalisation continue to be incurred after the first engines have entered service. We were satisfied that appropriate governance procedures and controls are in place to manage this revised methodology. The impact of this change in 2017 is the capitalisation of an additional £83m of costs. We also agreed that an amortisation methodology that reflects the number of engines in service better reflects the pattern of consumption of the intangible asset.

A summary of the principal matters we considered in respect of the 2017 Consolidated Financial Statements is set out in the table on page 100. Where relevant (in particular, in regard to the carrying value of programme assets and estimates on long-term contractual arrangements) we took account of the potential impact of the in-service issues on the Civil Aerospace Trent 1000 and Trent 900 programmes. These are described on page 24.

We continued to monitor the implementation of new standards. Our conclusions on IFRS 15 are shown in the table on page 100. IFRS 9 is applicable from 2018. The impact on the Group is not significant and is described on page 130. IFRS 16 is applicable from 2019. In broad terms this requires a balance sheet liability to be reported for all leases. We considered progress of the project and analysis of the Group's lease portfolio.

Since the year end, we have reviewed the form and content of the Company's 2017 Annual Report, together with the processes used to prepare and verify it. We have reported to the Board that, taken as a whole, we consider the Annual Report to be fair, balanced and understandable. We further believe the Annual Report provides the necessary information for shareholders to adequately assess the Company's position and performance, business model and strategy.

In making this assessment, we considered:

— the process for preparing the Annual Report, including a steering committee, the core team, and instructions to contributors;
— written representations from management in respect of the business reviews, sustainability, principal risks and Financial Statements;
— the completion of a regulatory compliance checklist;
— all reviews performed (including the Board, the ELT and KPMG) and ensured that all feedback was appropriately reflected; and
— the presentation and discussion in the Strategic Report of: (i) the underlying as well as reported results; (ii) the in-service issues on the Trent 1000 and Trent 900 programmes; and (iii) trends, in particular, the impact of individually significant items.

Areas of focus for the 2017 Financial Statements

Key issue	Matters considered	Outcome
Accounting for development costs	Methodology for capitalisation and amortisation of development costs – see pages 124 and 128	We are satisfied that the revised methodology for capitalisation and amortisation of development costs appropriately reflects changes in the ways in which risk is managed in the programmes and the consumption of the programme asset.
Impairment of the carrying values of programme assets in Civil Aerospace	Assessments of the values of the principal programme assets, including key assumptions and estimates – see page 143	We are satisfied that no write-down of programme assets is required.
Determining the appropriateness of the judgements and estimates used in accounting for long-term contractual arrangements	Continuing appropriateness of the judgements We considered carefully the estimates used in the accounting regarding the cost of the in-service engine issues on the Trent 1000 and Trent 900 programmes and the resulting performance improvements	We are satisfied that the judgements continue to be appropriate and that the process produces balanced estimates, with appropriate consideration of the uncertainties. No significant changes to the basis of preparation were made in 2017.
Classification of restructuring costs	The criteria for excluding certain costs from the underlying results and whether the costs meet this criteria – see page 135	We are satisfied that the agreed criteria have been consistently applied.
The sale of engines to joint ventures	Basis for assessing the selling price – see page 166	We are satisfied that the price represents the fair value of the engines.
Indications of impairment of goodwill in Marine	The forecasts and the key assumptions on which they are based – see page 143	We are satisfied that no impairment is required but, as the headroom remains low, we will continue to monitor this. We were also satisfied that no adjustments were required in 2017 as result of the reorganisation of Marine announced in January 2018.
Deferred tax assets (DTAs) and advance corporation tax	Basis for recognition of DTAs arising from tax losses and advance corporation tax in the UK and non-recognition of DTAs in Norway	Based on the Group's forecasts and taking account of the current uncertainties in the oil & gas market, we are satisfied that the treatment is appropriate.
Acquisition of ITP Aero	The acquisition accounting focusing on the remeasurement of the existing joint venture investment and the allocation of the purchase price to the assets acquired, giving rise to the recognition of a gain – see page 167	We are satisfied that the provisional judgements and estimates made were appropriate and that, in accordance with IFRS 3 *Business Combinations*, these will be finalised in 2018.
Implementation of IFRS 9	The assessment of judgements and estimates necessary to implement IFRS 9 in 2018 – see page 130	We are satisfied that the judgements and estimates are appropriate.
Implementation of IFRS 15	The progress of the project to implement IFRS 15 in 2018 and the preparation of the disclosures of the impact of the change for 2017 (see pages 55 to 57, 131 to 132 and 170 to 171)	We are satisfied that the judgements and estimates made are appropriate and consistent with the new requirements; that the disclosures of the impact are appropriate; and that the Group has systems and processes in place to report on the new basis in 2018.

Risk and control environment

Assessment of principal risks

Risk management is a fundamental and integral part of how we work. All risks are managed through a risk management system (RMS – described on page 59) in accordance with policies and guidance approved by the Board.

Judgement is required in:

— evaluating the risks facing the Group in achieving its objectives;
— determining the risks that are considered acceptable;
— determining the likelihood of those risks materialising;
— identifying the Group's ability to reduce the incidence and impact on the business of risks that do materialise; and
— ensuring the costs of operating particular controls are proportionate to the benefit provided.

During 2017, on behalf of the Board, we monitored the RMS, including continued developments and improvements. These are described in more detail on page 59. We also specifically considered how risks at remote sites are identified and managed.

This process and the principal risks arising (see pages 59 to 62) then formed the basis for our assessment of the going concern and viability statements which are discussed on page 63. The processes are designed to identify and manage, rather than eliminate, the risk of failure to achieve our business objectives.

We satisfied ourselves that the processes for identifying and managing the principal risks are appropriate and that all risks and mitigating actions had been subject, during the year, to a detailed review by the Board or an appropriate Board committee. Based on this and on our other activities, including consideration of the work of internal and external audit and presentations from senior management of each business which include risk management, we reported to the Board that a robust assessment of the principal risks facing the Company had been undertaken.

Internal control

The Board has overall responsibility to the shareholders for the Group's system of internal control over its business and risk management processes and the risks identified through the risk management process. The Committee has responsibility for reviewing the system's operation and effectiveness.

The system comprises:

— entity-level controls covering leadership and direction from the top; and

— specific control activities, covering detailed process controls, and internal and external assurance activities.

We routinely review controls over the Group's principal risks and the key risks and critical processes in each of the Group's businesses. Both the sector audit committees and this Committee also consider KPMG's observations on the Group's control environment.

During 2017, the Group completed the documentation of core financial controls in line with the plans established in 2015, and commenced a formal programme to continually assess and test the effective operation of those controls across the Group. In addition, it is extending the documentation of internal controls to include compliance controls relating to the DPAs. In 2017, the testing and assessment of core financial controls identified that further improvements are required to fully embed and mature these controls. Therefore new policies and formalised compensating internal controls specifically in respect of financial reporting were introduced.

We have conducted a review of the effectiveness of the Group's risk management and internal controls systems, including those relating to the financial reporting process, in accordance with the Code. These systems have been in place throughout 2017. We consider that they meet the requirements of the Code and the DTR.

Going concern and viability statements

We reviewed the processes and assumptions underlying the statements set out on page 63. In particular, we considered:

— the Group's forecast funding position over the next five years;
— an analysis of impacts of severe but plausible risk scenarios, ensuring that these were consistent with the risks reviewed by the Board as part of its strategy review;
— the impact of multiple risks occurring simultaneously;
— additional mitigating actions that the Group could take in extreme circumstances; and
— the current borrowing facilities in place and the availability of future facilities.

As a result, we were satisfied that the going concern and viability statements have been prepared on an appropriate basis.

Principal risks

We considered in detail the principal risks that have been allocated to us by the Board, see pages 61 and 62. From our discussions we are satisfied that all of the principal risks that we oversee have received significant management attention during the year. We reviewed:

Business continuity

In February, the director of civil aerospace operations updated us on how business continuity risks present in the external supply chain were being mitigated and governed.

In November, the Group's chief information officer updated us on the programme of work to identify and mitigate potential IT single points of failure.

In December, the director of civil aerospace operations presented information on supply chain resilience and potential single points of failure in our internal supply chain.

We also spent time reviewing progress made with improvements agreed last year to mitigate specific business continuity risks and to address internal audit recommendations.

IT vulnerability

In May, the director, security, risk & compliance updated the Committee on the potential key risks related to cyber security, how the threat landscape is changing and how lessons are being learnt. We also reviewed the cyber security strategy, designed to improve the visibility of threats, enforcement of cyber security policies and learning from intelligence gained about the main cyber risk actors as well as our 'defence in depth' approach.

In November, we received an update from the Group's chief information officer on the progress that was being made to mitigate the cyber security threats that we discussed in May.

We also received ad hoc updates during cyber attacks such as WannaCry.

Market and financial shock

In July, we reviewed potential key risks, including liquidity and credit rating risks and how they are managed by the Group's financial risk committee.

We also considered the impact of other risks, notably changing accounting standards and Brexit.

Our risk management system

In February, we reviewed the programme to enhance the risk management system and in July and December reviewed progress that had been made. In December, we also received an update from the head of enterprise risk management on the development of the risk appetite framework to use risk metrics to inform decision making. The framework includes upper and lower limits and triggers to provide early warning if the limit of the Group's capacity to withstand principal risks was being approached.

Internal audit

The director of internal audit provides the Committee with:

- quarterly: a dashboard identifying the key trends and findings from internal audit reports, and the resolution of actions agreed;
- biannually: a detailed update of significant findings and his perspectives on the internal control environment, management responses to underlying root causes and systemic issues;
- the results of audits on advisor processes (including payments) and conflicts of interest, as part of the Group's response to the DPAs;
- an annual report on compliance with expenses policies for the directors and ELT members; and
- a work plan for the following year.

I meet the director of internal audit privately before each meeting and on an ad-hoc basis throughout the year, as do other members of the Committee. As a whole, we have a private meeting with him at least once a year. These discussions cover the activities, findings, resolution of control weaknesses, progress against the agreed plan and the resourcing of the department. Specific topics discussed in 2017 included: process and control design; compliance to process; data security and integrity; project management; and accountability.

The nature and number of issues raised by internal audit and the time to complete the related actions remains a key focus. We pay particular attention to the small number of overdue actions and were pleased to observe a continued reduction in the time to complete actions.

The plan is developed to focus on the key risks facing the business. We monitor changes during the course of the year.

We considered and reviewed the effectiveness of the Group's internal audit function, including resources, plans and performance as well as the function's interaction with management. The outcome of the 2017 review was positive and identified opportunities for continued improvement which are being implemented.

We are satisfied that the scope, extent and effectiveness of internal audit work are appropriate for the Group and that there is a sound plan for ensuring that this continues to be the case as our business progresses and risks change. I was pleased to see that the continued improvement in the function was recognised by the Institute of Internal Audit when awarding it the Private Sector Outstanding Team of the Year.

External audit

2017 audit

During the year, KPMG presented the audit strategy, which identified their assessment of the key audit risks and the proposed scope of audit work. We agreed the approach and scope of audit work to be undertaken and we also assessed KPMG's qualifications, expertise and resources, independence and the effectiveness of the external audit process.

Key risks and the audit approach to these risks are discussed in the Independent Auditor's Report (pages 183 to 194), which also highlights the other significant risks that KPMG drew to our attention. We continue to support the extended auditor's report and KPMG's approach which goes beyond the minimum requirements, providing additional clarity on the key judgements and estimates.

As part of the reporting of the half-year and full-year results, in July 2017 and February 2018, KPMG reported to the Committee on its assessment of the Group's judgements and estimates in respect of these risks and the adequacy of the reporting. KPMG also reported on its assessment of the Group's control environment.

It is important that for areas of judgement that are finely balanced, KPMG provide additional insight to assist in making the most appropriate judgement. In our meetings and discussions with KPMG and management, it is clear that this role is being performed well.

I meet with the lead partner prior to each meeting and the whole Committee has a private meeting with KPMG at least once a year.

Non-audit services provided by KPMG

In order to safeguard the auditor's independence and objectivity, and in accordance with the FRC's Ethical Standard, we do not engage KPMG for any non-audit services except where it is work that they must, or are clearly best-suited to, perform. Accordingly, our policies for the engagement of the auditor to undertake non-audit services broadly limit these to audit-related services such as reporting to lenders and grant providers.

Fees paid to KPMG are set out on page 141 and summarised on page 103. All proposed services must be pre-approved in accordance with the policy which is reviewed and approved annually. Above defined levels, my pre-approval is required. During 2017, we have further strengthened the process and controls in this area. We also review quarterly the non-audit fees charged by KPMG.

Non-audit related fees paid to KPMG during the year were 24% (2016: 17%) of the audit fee. Our annual review of the external auditor takes into account the nature and level of all services provided.

	2017		2016	
	£m	% of audit fee	£m	% of audit fee
Audit	7.6		6.8	
Non-audit				
Audit-related [1]	0.7	10	0.6	9
Tax compliance	0.1	1	0.5	7
Other	1.0	13	0.1	1
	1.8	24	1.2	17

[1] Includes £0.3m for the review of the half-year report.

Based on our review of the services provided by KPMG and discussion with the lead audit partner, we concluded that neither the nature nor the scale of these services gave any concerns regarding the objectivity or independence of KPMG.

Auditor transition and appointment of PwC

The Committee reviews and makes recommendations to the Board with regard to the appointment of the external auditor.

Following the audit tender process in 2016, we recommended to the Board that PwC be appointed as auditor for the financial year commencing 1 January 2018. No contractual obligations restricted our choice of external auditor.

During 2017, we have monitored the activities of the audit transition team, which was established to ensure that the transition is as seamless as possible. A key part of the activities was to ensure that, on appointment, PwC meets the independence requirements and that we have procedures to ensure that this is maintained (and that of KPMG until the completion of their audit responsibilities). This involved moving existing PwC engagements, most significantly global tax compliance, to alternative providers. PwC became independent in October 2017. As well as this, during 2017, PwC has attended the Committee meetings and sector audit committee meetings, made familiarisation visits to our major sites and held a global planning workshop. Following the confirmation of independence, PwC has reviewed KPMG's audit files for 2016 and our key accounting policies and judgements, including those relating to IFRS 15. We are also working on a detailed plan for each of the subsidiary companies around the world.

KPMG has been the Company's auditor since 1990. On behalf of the Company, I express my thanks to them for their contribution over this period.

Ian Chambers, as the PwC lead audit partner, will be required to rotate after five years and other key audit partners will be required to rotate every seven years. We will monitor compliance with these requirements. The Committee and the Board will recommend PwC's appointment at the 2018 AGM.

Compliance

During 2017, the Company complied with The Statutory Audit Services for Large Companies Market Investigation (Mandatory Use of Competitive Tender Processes and Audit Committee Responsibilities) Order 2014.

Looking forward

As well as our regular review of accounting policies, our focus will include:

- the audit transition activities;
- the implementation of IFRS 16, including the supporting processes and controls;
- embedding and maturing the finance processes and core financial controls with continued training and education;
- completion of the documentation of compliance controls relating to the DPAs;
- strengthening the information technology controls over key finance systems; and
- the continuing development of the management information systems and improvements to the underlying systems and tools.

In addition to the continuing oversight by the Safety & Ethics Committee of the ethics and compliance programme (see page 109), we will continue to monitor the Group's actions relating to risk management, internal controls and other matters relevant to the Committee that arise out of Lord Gold's recommendations, and from the agreements with prosecuting authorities.

Lewis Booth
Chairman of the Audit Committee

Safety & Ethics Committee Report

Key highlights

- Supporting executive leadership with renewed focus on HSE
- Review of product safety in Defence Aerospace
- Maintaining product safety, occupational safety and asset integrity focus during organisational change
- Monitoring of compliance with obligations under the deferred prosecution agreements (DPAs)
- Maintaining oversight of the implementation of Lord Gold's recommendations on ethics and compliance
- Further embedding compliance culture in the businesses
- Review of the Group's refreshed approach to sustainability

Introduction

This year the importance of the Committee's role in assisting the Board, and guiding and overseeing management, has been evident. As part of organisational transformation, there has been significant executive leadership emphasis on driving greater ambition in all aspects of safety and ethics. Employee, customer and public expectations in these areas continue to increase. I and the other Committee members welcome the opportunity to support the leadership as it strives for continuous performance improvement.

The Committee has carefully monitored compliance with the DPAs. We have reviewed the handling of product in-service issues, the investigations and conclusions from occupational health and safety and asset integrity incidents, and have acted as a sounding board for plans to improve the Group's vigour and approach to sustainability.

Operation of the Committee

All members of the Committee are independent Non-Executive Directors. Our biographies are on page 67. The Committee's responsibilities are outlined in its terms of reference, available at www.rolls-royce.com, which we review annually and refer to the Board for approval.

In addition to the usual scheduled meetings during the year, the Committee added extra calls in April and October so that we could maintain more regular oversight over the Group's compliance with its obligations under the DPAs, the implementation of Lord Gold's recommendations on ethics and compliance, and the embedding of compliance culture within the businesses. We held an unscheduled meeting to receive an update on the latest discussions with regulators following the DPAs. The Committee also conducted an on-site product safety review of Defence Aerospace operations.

Committee members

Member	Attended	Eligible to attend
Sir Frank Chapman (chairman)	5	6
Irene Dorner	6	6
Lee Hsien Yang	6	6

See page 70 for reasons of non-attendance.

Principal responsibilities

Product safety

- Maintain an understanding of, and keep under review, the Group's framework for the effective governance of product safety, including risk management, policies, training, capability and elements of the product safety management system.
- Monitor product safety performance, the response to product in-service issues and lessons learned.

HSE

- Oversee HSE governance, review performance, incidents and monitor improvement projects.
- Guide and support management in the promotion of a culture of leadership in HSE.

Sustainability

- Oversee the Group's approach to sustainability, including how environmental/climate impacts from its operations are managed, and monitor performance towards sustainability targets.

Ethics & compliance

- Review the Group's compliance with relevant legislation.
- Keep the Global Code of Conduct (Global Code) and anti-bribery and corruption policies under review.
- Review reports on issues raised through the Ethics Line and other channels and review the results of any investigations into ethical or compliance breaches or allegations of misconduct.

Principal risks: compliance and product safety

- Maintain oversight of these principal risks. The product failure principal risk was redefined as product safety during the year (see page 59).

Areas of focus for 2018

- Oversight of the Group's activities to meet its continuing obligations under the DPAs and to implement Lord Gold's recommendations
- Oversight of the deployment of the revised Global Code of Conduct
- Supporting leadership with the development of structured improvement plans to support the Group's increasing safety ambition

Safety & Ethics Committee focus during 2017

Area of focus	Matters considered	Outcome
Product Safety	Maintaining safety during organisational change Product safety policy and processes, training, safety assurance case and competence in manufacturing Product safety performance and issues in service Product safety management systems Product safety in Defence Aerospace	The Committee was satisfied that product safety governance remained robust following changes to organisational accountability. Safety performance remained at expected acceptable levels, with safety aspects of in-service issues handled competently and appropriately. The product safety management system in Defence Aerospace is effective and well-operated.
HSE	Monitoring investigations into two employee fatalities and the Company's response Detailed reviews of serious injury and high potential incidents including asset integrity matters Events, key findings, shared learning and actions HSE ambition, strategy and plans for continuous HSE improvement HSE performance including incidents, injuries, waste, energy use and GHG emissions metrics HSE programmes – LiveWell, asset care, waste action	Support to the employees' families and colleagues has been made available. Several investigations are being undertaken but are not yet concluded. Strengthening of HSE leadership, strategies, plans and communications as part of a structured approach to achieve continuous improvement. Programmes are at varying maturity levels but there are signs of progress. Energy consumption target has been met three years early. Waste reduction target time horizons have been restated to realistic levels following review.
Sustainability	Review of sustainability strategy, governance, in-year and planned activity Publication of annual anti-slavery and human trafficking statement under UK Modern Slavery Act 2015 amendments Review of plans to meet external sustainability reporting requirements in light of increased regulations and stakeholder expectations	A revised approach aligned to the Group's new vision was agreed. A new ELT-level committee has been formed to oversee environment and sustainability matters, including policy, approach and key performance indicators. The Group's anti-slavery and human trafficking statement was reviewed and approved. Reviewed the transparency and credibility of existing external reporting and agreed an approach to participation in key sustainability assessments.
Ethics & compliance	Updates on dialogue with regulators and agencies and impact on customers and partners post-DPAs Compliance with continuing obligations under the DPAs and implementation of Lord Gold's recommendations Plans to refresh Global Code of Conduct and policies Resourcing of ethics and compliance team, and effectiveness of compliance officers Embedding of ethics and compliance culture and behaviours. Review of number and nature of Ethics Line contacts Management of intermediaries including termination, settlements, screening, appointments and payments Progress with Data Privacy Binding Corporate Rules application	The Committee was kept appraised of continuing cooperation. Customers and partners were appropriately engaged. Reviewed detailed plans for, and progress on, compliance. Reviewed the first annual report to US Department of Justice. A new Global Code is to be issued in 2018. The ethics and compliance team is effective and has been strengthened in some areas. There is anecdotal evidence from business leaders that cultural change is being embedded in the businesses. Continued oversight is required. The intermediary processes are effective to manage the risks. The Committee supported the approach on data privacy. The decision of the Information Commissioner on Binding Corporate Rules is awaited.
Oversight of principal risks	Principal risks of compliance and product safety reviewed	These principal risks are reviewed and discussed at every meeting of the Committee, and both are being managed effectively.

Product safety

Rolls-Royce aims to go beyond compliance with regulatory product safety standards, setting a goal of continuous product safety improvement, in common with other industry participants. This is regarded as fundamental to the Group's licence to operate and to the sustainability of our business. Product safety encompasses the design, manufacture, assembly, installation, in-service operation, maintenance and repair of products, across all of our businesses, and regions where we operate. It is critical that product safety processes develop continuously to underpin the science and technological innovation that enables product designs to evolve and extend operational boundaries.

In 2017, we continued with our rolling review programme of key product safety topics across the Rolls-Royce businesses, as well as considering special topics and in-service issues as they arose.

Throughout the year, we retained a focus on how safety risk was being managed through the period of transformation for the Group. This included overseeing changes to the product safety governance model and policy to reflect new organisational accountabilities aligned to changes in senior operations and engineering roles. We also emphasised the importance of ensuring safety processes continued on a positive trajectory against a backdrop of organisational change and pursuit of operational and cost efficiencies. Emphasis continued on the evolution of our product safety competence across the workforce, with new employees being appropriately trained on processes from the outset.

We monitor improvements that are proposed to the Group's product safety management system (SMS). We reviewed the work of the product safety process council, part of the role of which is to ensure that the product safety processes are clearly understood and effective. The council gathers information from a broad range of sources including KPIs, audits, user surveys and feedback, and safety governance forums. Together these ensure that there is regular, diverse activity to monitor the state of our safety processes. These indicators showed the product safety processes to be effective, efficient and fit-for-purpose, and also continued to highlight opportunities for improvement in some areas. This led to work in 2017 on: continued communication to increase awareness; further safety case guidance and user support; document simplification and updates; development of a product safety assurance case; reporting tool simplifications; corporate audit of targeted safety processes; and updates to the senior managers' product safety awareness training.

We reviewed progress on the use of a safety case to articulate why a product is acceptably safe to operate, supported by evidence (see example safety case below). The preparation of a product safety case was introduced to the Group's processes based on best practice from the Rolls-Royce Nuclear business. We saw how the introduction of a safety case served to increase further the focus on safety in a structured and consistent manner across the businesses. We also noted the lessons being learned and captured for future projects on how to structure safety cases.

The Committee received briefings at each of its meetings during the year on issues that had arisen with products in service. These included updates on investigations of root cause, assessment of implications, and oversight of the Group's response. The Committee was satisfied that processes and plans were appropriate and effective in identifying, managing and retiring safety risk. We were kept updated on the programme to address the issues previously identified on the Trent 1000 fleet and were satisfied with the approach taken from a safety perspective.

In February, we reviewed the overall metrics for product safety in 2016. We noted that neither the number nor rate of safety events for 2016 indicated any significant concern with either the safety performance of the Group's products or with performance in managing safety issues.

In December, we reviewed the processes for ensuring competence in manufacturing, as an element of the SMS.

We were briefed on the activity during the year to refresh the product safety training for employees, which we noted would be more targeted to particular roles.

We also reviewed the product safety principal risk and supported the proposal to the Board to redefine this as product safety (you can read more about this on page 59).

Example safety case

Claim

The product is acceptably safe to operate

Argument

- All hazards have been identified
- All hazard causes have been eliminated or adequately mitigated
- The risks are tolerable
- Risks have been reduced to levels that are ALARP *
- The certification requirements have been satisfied
- All Group safety policies have been satisfied
- The appropriate safety controls are in place

Evidence

* ALARP: as low as reasonably practicable.

DEFENCE AEROSPACE PRODUCT SAFETY WORKSHOP

In order to provide effective oversight of product safety risk, the Committee remains conversant with product safety processes and the Group's SMS. In September 2017, we focused our attention on product safety in Defence Aerospace with a visit to the Group's facilities in Bristol, UK.

We were briefed by the product safety leadership team on Defence Aerospace markets, products and operating environments. We learned about the governance of product safety through a robust product safety review board structure. We also discussed the product safety processes within Defence Aerospace joint ventures and how these interact with the Group's own processes under a defined management plan.

We examined specific cases, how these were being handled, findings, corrective measures taken and the relationship management maintained with third parties involved. We were given a detailed briefing on the 'red top' and safety alert report processes, and reviewed current metrics.

We also gained an understanding of the military certification regulatory regimes and how these differ from the equivalent civil aerospace processes. This covered how engine documentation on legacy platforms is registered to maintain product knowledge and enable continuing support under the business' historic engines policy.

We visited the Defence Aerospace operations centre and saw how incidents in service are handled. We then moved on to air safety investigations with a visit to the investigations workshops. We observed how the forensic teams work as leaders in this field using advanced equipment and techniques such as electron beam microscopy and 3D scanning.

We visited the maintenance, repair and overhaul facility, where we were able to gauge a strong and supportive product safety culture on the shop floor. We also viewed the new test bed for the TP400 engine that will allow for significantly enhanced test capability. The day finished with further discussions over dinner with key members of the Defence Aerospace team.

Overall, the workshop provided a good level of confidence to the Committee that the SMS, as operated in Defence Aerospace, was effective, robust and competently operated.

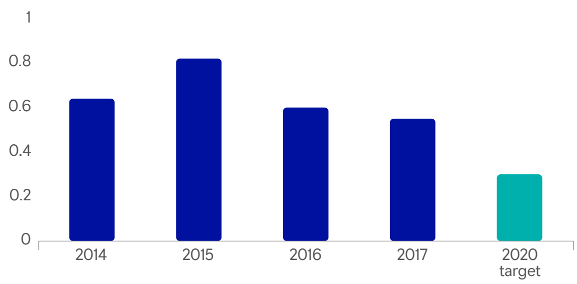
HSE

The Committee maintained focus on HSE developments during a particularly challenging year in this area.

We regret to report that there were two employee fatalities in October. The first was the death of an electrical engineer employed in the civil nuclear business, while working at a customer site in central France. The matter remains under investigation. The second was an employee of Power Systems who died from injuries sustained in a road traffic accident while on the way to a customer's site in Germany. No other vehicles were involved. These two tragic incidents have remained under the Committee's review and are a stark reminder of the critical importance of managing HSE effectively across all activities. The leadership's heightened HSE performance ambition aims to eliminate all recordable incidents.

We were given detailed briefings on HSE matters throughout the year. In July and December, we reviewed the Group's HSE key activities, performance metrics, insights and learning, noting that the total reportable injury (TRI) rate was behind the year-on-year target trajectory. Again, this added stimulus to the leadership's determination to achieve higher HSE performance levels. Asset integrity, infrastructure maintenance and control of contractors were common factors across a number of these incidents and will be targeted for improvement as part of the structured HSE improvement plans.

TRI rate (per 100 employees) *

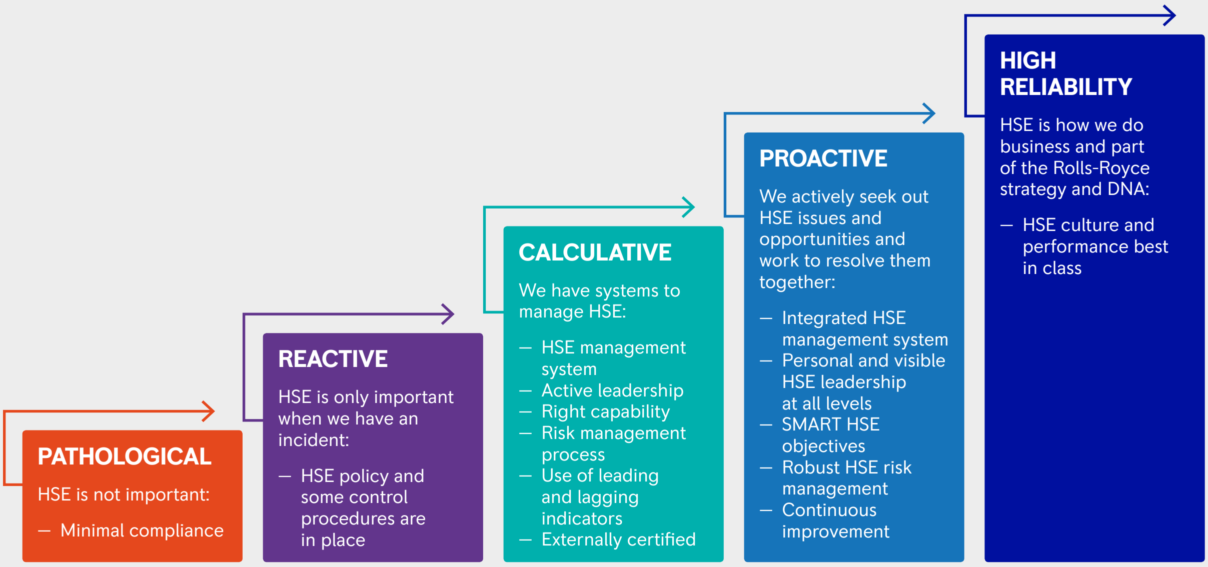


* External assurance over STEM, energy, GHG and TRI rate data provided by Bureau Veritas. See page 195 for the sustainability assurance statement.

We were briefed on the Group's asset care strategy for Group property assets and manufacturing assets, noting that the property maintenance capital programme had been revised and re-prioritised based on asset criticality, condition, reliability data and lifecycle cost. We were encouraged that quarterly asset reports for certain sites outside the Americas had been introduced to provide an overview to local stakeholders of maintenance provided, costs, safety critical maintenance requirements, equipment reliability analysis, training needs and improvements delivered. We also welcomed the introduction of a new leading indicator to track planned maintenance schedule adherence for high-consequence safety critical equipment.

Slips, trips and falls remained the highest single cause of reportable injury and we reviewed the range of activities undertaken to mitigate this risk, including housekeeping, toolkits to help leaders engage and reinforce safety awareness, and a dynamic risk assessment application for use by employees working at customer locations to assess the safety risk level of their work environment.

HSE maturity model



We reviewed a proposal to revise the Group's target, set at the end of 2014, to reduce the amount of waste produced from the Group's operations by 25% by 2020, normalised on turnover. Due to historical data discrepancies and inaccuracies we agreed a proposal in June 2017 to retain the 25% reduction target but to extend the time period to achieve this from 2020 to 2025.

In July, we received a briefing on the Group's aspiration to achieve significantly higher levels of HSE performance and move Rolls-Royce to a leading position in HSE across all businesses. We noted the benchmarking that had been undertaken with a number of large companies and supported the Group's adoption of the HSE maturity model shown above, and the refocused strategy of themes and enablers to achieve high reliability.

The ELT members conducted a focused session in November on safety culture, challenging themselves on what more could be done to promote vigilance and awareness to keep employees safe. We were briefed on this in December and were encouraged to see commitment to demonstrating strong and sustained safety leadership. Work continues on developing structured improvement plans and defining common leadership themes and communications plans. The Committee will be keeping the Group's progress on this under close review during 2018 and beyond.

Sustainability

Some organisational changes in the first half of the year provided an opportunity for a fresh look at the Group's approach to sustainability.

We were briefed in July on some changes to the HSE and sustainability team structure to enable more strategic and aligned thinking across broader sustainability themes. In December, the team returned to present an update on a refreshed sustainability strategy. We discussed and endorsed a move away from having a separate, standalone, sustainability strategy with its own vision and principles, in favour of building on the strong alignment to the Group's refreshed vision, its strategic focus areas and business model. This approach allows the sustainability team to support the businesses and functions in embedding consideration of sustainability issues into core business strategies, policies, risk assessments, decision-making tools and programmes, and in doing so to identify and exploit opportunities.

The Committee has previously cautioned against the introduction of too many new safety and ethics initiatives, with attendant risks of confusion and dilution of key messages. A fresh look has been taken across these initiatives and many have been rationalised as part of a simpler approach.

We were briefed during the year on the Group's response to the new EU Non-Financial Reporting Regulations, UK gender pay gap reporting, and consideration of the recommendations of the FSB Taskforce on Climate-related Financial Disclosures (TCFD), as well as the publication in early 2018 of the Group's annual update on progress against the UK Modern Slavery Act revisions.

Our overall score in the annual Dow Jones Sustainability Index (DJSI) declined slightly in 2017 versus 2016. Analysis showed this was largely as a result of the introduction of new question sets, significant changes to other sections, and receiving a lower score in the codes of conduct and export control sections as a result of the regulatory investigations leading to the DPAs in January. We were pleased to remain within the top 10% overall and to remain listed in both the DJSI World index (as one of only four aerospace and defence companies out of 36 invited to participate) and DJSI Europe index. Particularly encouraging was that we achieved the maximum possible score for environmental reporting and the industry-leading scores for human rights and stakeholder engagement. This contributed to the Company qualifying for inclusion in RobecoSAM's 2018 Sustainability Yearbook and receiving a Bronze Class distinction for excellent sustainability performance.

ROBECOSAM
Sustainability Award
Bronze Class 2018

A new executive-level environment and sustainability committee, co-chaired by the Chief Operating Officer and Chief Technology Officer, was formed during the year to provide executive level oversight of the Group's response to sustainability issues including policy, approach and related KPIs.

Overall, the Committee is supportive of the increased focus and governance on sustainability topics and with the continued strengthening of the Group's reporting. This includes the Group's updated website at www.rolls-royce.com/sustainability, which has its contents structured around the core topic areas of environment, people, ethics, customers and suppliers, and performance.

You can read more about the Group's sustainability activities on pages 44 to 49.

Ethics and compliance

Following the DPAs, much of the Committee's focus in the year has been on overseeing the Group's work plans to meet its continuing obligations to the regulators, and monitoring progress in implementing the recommendations put forward by Lord Gold in his reports. Lord Gold himself attended most Committee meetings during the year and updated the Committee on how he has been overseeing and supporting this work, as well as reporting on his particular areas of focus and activities. This included a review of processes for the granting of commercial concessions to customers, and attending employee focus groups and other internal events to understand views from the workforce on 'speaking up' and on the Group's culture in the area of ethics and compliance.

The Committee has also taken a keen interest in hearing from the leaders of some of the businesses as to how ethics and compliance are being embedded into the Group's culture in practice. We scheduled two additional Committee meetings, which took place in April and October, to provide more time for status updates and discussion of these topics.

We discussed the need for the business leadership to continue to drive the right behaviours, as well as having the right processes, so that individuals are accountable for their own actions and feel able to speak up. To help us understand how this was progressing, we received separate updates from the president and the chief compliance officer of the Civil Aerospace business, and from the chief financial officer and general counsel & head of integrity at Power Systems. It was noted that the businesses operated globally across territories that had different levels of maturity and sophistication regarding ethics and compliance, and this could present challenging situations for employees such as field service engineers who work in remote locations. A programme of compliance verification visits to selected sites had been introduced to check the effectiveness of training and levels of awareness, so that any gaps could be promptly addressed. We heard about specific examples of areas for improvement being identified and addressed either through additional training or improved communications, processes or controls. Overall we were assured that the leadership teams, supported by the central ethics and compliance function, were setting the 'tone from the top', by expressing clearly and regularly the high standards expected and encouraging employees to speak up.

At each of our meetings during the year, we received an update from the General Counsel on the Group's continuing dialogue and cooperation with regulators and government agencies. We also received reports and briefings from the chief compliance counsel on ethics and compliance matters generally.

In the 2016 Annual Report, we reported on the significant reduction in the number of advisers used by the Group over recent years, and the stringent vetting process for any new engagements. We kept the level and nature of adviser engagements under review in 2017, and were notified of any claims received during the year from any advisers who had been terminated in the past. We noted the careful approach taken with regard to termination of certain Power Systems' advisers to ensure that customers were not exposed to gaps in capability for safety-critical work.

We kept the resourcing and capabilities of the compliance team under review, both centrally and within the businesses. We were satisfied that the responsibilities of the director of risk, who left the business during the year, had been assumed either by the general counsel or the chief compliance counsel through an orderly transition process. We recognised the need for the compliance team to remain appropriately balanced between roles in the central team and within the businesses. We were therefore supportive of the recruitment of the new director of ethics and compliance at Power Systems, and the proposed addition of a number of new roles. We also recommended that likely resourcing requirements for the compliance function in the longer term be considered.

Another area of interest for the Committee, and for Lord Gold, during the year was the coordination of training, disciplinary processes and the employee communications strategy to help drive the desired culture. We received briefings from the Group HR Director and members of her team, with input from the chief compliance counsel, on activity in this area. The Committee recognised the need to balance the drive to embed accountability for behaviour with considerations of employees' legal rights to privacy, but encouraged the team to explore ways to show the workforce real examples of consequences for breach of the Global Code or group policies, or for failure to complete mandatory training.

We examined proposals to refresh the Global Code in 2018. The current Global Code was first introduced in 2013 and we agreed that a comprehensive review was therefore timely. The new Global Code will also be supported by new training modules designed to bring it to life in a simple, understandable and relevant way, focusing on behaviours. We look forward to seeing progress on this in 2018. We were also pleased to see this approach to providing a simplified and more concise document being applied in the consolidation of several group policies into one simple manual for employees.

Looking forward

Overall, this has been a year of challenge in all of the areas overseen by the Committee, that has required us to be constructively critical and supportive of management's ambitions and plans.

In 2018, we will continue our focus on ensuring the Group progresses its ambitions for an improved HSE performance, continues to evolve product safety processes and meets its regulatory obligations under the DPAs. More generally, we will continue to provide support to management on the embedding of a productive culture encompassing all aspects of safety and ethics.

Sir Frank Chapman
Chairman of the Safety & Ethics Committee

Science & Technology Committee Report

Sir Kevin Smith
Chairman of the Science & Technology Committee

Key highlights

- Technology strategy, investment and programmes review
- Electrical systems strategy
- Additive layer manufacturing (ALM) strategy
- Competitiveness of civil aero engines and reciprocating engines
- Emerging and disruptive technologies
- Virtual tour of Advance3 build shop and UltraFan power gearbox test facility
- Visits to Trent XWB final assembly, a large engine test bed and the National Composites Centre

Introduction

The Group invests more than £1 billion each year in R&D to conceive, design and deliver world-class technology that meets our customers' current and future needs. In a fast-changing world, the Committee provides dedicated focus, directional input and oversight of the Group's scientific and technological strategy, processes and related investments.

Operation of the Committee

All members of the Committee are Non-Executive Directors. Lewis Booth stepped down from the Committee in April 2017 when he joined the Remuneration Committee. Our biographies are on pages 67 to 68. The Committee's responsibilities are outlined in its terms of reference, available at www.rolls-royce.com, which we review annually and refer to the Board for approval.

The Committee held four meetings face to face and two via teleconference during the year.

Committee members

Member	Attended	Eligible to attend
Sir Kevin Smith (chairman)	6	6
Lewis Booth	1	1
Ruth Cairnie	6	6
Brad Singer	6	6
Jasmin Staiblin	5	6

See page 70 for reasons of non-attendance.

Principal responsibilities

Technology strategy

- Review the strategic direction of the Group's research, technology and development activities.
- Ensure investment is allocated appropriately.
- Keep under review the key technology programmes.
- Assist the Board in its oversight of major R&D investment and provide assurance on its competitiveness and the adequacy of R&D investment.

Cross-sector technology

- Oversee the effectiveness of key engineering and technology processes and operations, including delivery of major product development and technology programmes.

Technology capabilities and skills

- Oversee processes for ensuring effective resourcing and development of required technological capability and skills.
- Conduct visits to R&D facilities.

Technology trends and risks

- Provide assurance on the identification and management of key technological risks.
- Review and consider any other topics or risks appropriate to the overall remit of the Committee as delegated by the Board.

Principal risk – disruptive technologies and business models

- Oversee one of the Group's principal risks. This risk was added in 2016 to reflect the increasing importance of transformative technologies and new ways of doing business.

Areas of focus for 2018

- Oversight of the Group's technology programme
- A review of technology partnering strategy
- Update on key programmes including Advance3, UltraFan and small modular reactors
- Technology for services
- Advanced manufacturing technology and industry digitisation
- A review of electrical and digital skills and capability development

Science & Technology Committee focus during 2017

Area of focus	Matters considered	Outcome
Technology strategy	The Group's technology strategy Investment allocation Review of key technology programmes Review of competitiveness of civil aero engines Review of competitiveness of reciprocating engines	Confirmed that the strategic objectives and associated investment funding allocations were appropriate. Supported the strengthening of the approach to electrical systems. Endorsed the creation of the Chief Technology Officer's organisation. The reviews of competitiveness shaped inputs and recommendations for the Board strategy discussions in September and helped confirm the appropriateness of our technology plans.
Cross-sector technology	The Group's electrical systems strategy and advanced manufacturing strategy	Endorsed the initial programme of electrical systems technology demonstrators and the creation of a dedicated management structure at Group level. Had early sight of the Group's updated advanced manufacturing strategy, provided comments and identified areas of follow-up.
Technology capabilities and skills	A new focus on electrical systems requires additional resources, new capabilities and skills and a different way of thinking Visits to Trent XWB final assembly/test bed and the National Composites Centre Live virtual tours of Advance3 and UltraFan power gearbox rig	Requested a more detailed electrical system skills and capability development plan which would be reviewed in 2018. Visits were insightful, provided physical evidence of progress on key technology programmes and provided an invaluable opportunity to meet the teams.
Technology trends and risks	Disruptive potential from various sources including digital technologies, novel materials and manufacturing Opportunities and threats in electrical systems	We are satisfied that the Group has robust processes in place to identify disruptive threats and opportunities and develop appropriate actions.
Oversight of principal risk	The principal risk of disruptive technologies and business models was reviewed twice during the year	We are confident that we are receiving enough detail around this principal risk and on the ways the risk is being kept under review by the Group.

2017 overview

The Committee's main focus for 2017 was on our technology strategy and on aligning this to the Group's strategic reviews, the allocation of technology funding and our competitiveness in key technology and product areas. At the beginning of the year, we reviewed the programme of work to deliver in 2017 and the investment funding allocation and received an update on the progress made on technology plans for each business.

Of note was a significant increase in spend in our aerospace businesses as activity on our technology demonstrator programmes ramps up. Although there were resource constraints, the overall programme was considered reasonable.

We gave our support to management in seeking to take a new approach to strategic planning for technology. In the past, investment has been allocated principally by matching resource bids from the businesses to our product strategies. At the beginning of the year, it had been decided by management that a stronger Group-driven approach should be developed to allocate investment across different types of technology programmes which provided synergy and opportunity across the Group. This will achieve a better balance of product-specific technologies with broader sector opportunity. Each Committee member gave time to management individually and provided input to help shape the approach and align it to the Group's strategy.

We received a briefing on the Group's activities in additive layer manufacturing (ALM), its development, supply chain and reasons for its importance.

We noted that the use of ALM globally has been rising at a 35% compound annual growth rate. The Group is exploring a number of partnership and supply chain strategies to accelerate its development. The Group's technology focus in ALM is on specialised materials, such as high temperature alloys and parts with high value and high manufacturing complexity. The Committee benefited significantly from a visit to the ALM research facility in 2016 and will keep the delivery of the Group's strategy for ALM under review.

Throughout the year, the Committee discussed technology competitiveness and carried out a specific review on the Civil Aerospace business and the market for large engines. We looked at: the business' product and technology strategies and product evolution path; the relative position on key technologies versus competitors; the fundamental capability drivers and enabling technologies; and an analysis of our R&D/R&T spend compared to competitors. A similar session was held with the Power Systems team to discuss competitiveness of our reciprocating engine technology.

We also reviewed the Group's emerging electrical systems strategy. There is a growing demand for electrical capability across all our platforms hence this is an important area of focus to ensure the Group positions itself competitively for the future. We heard about potential future applications of hybrid electrical configurations for aircraft in the aerospace businesses and how electrical systems technology was rapidly increasing in the markets addressed by our Marine and Power Systems businesses.

ADVANCE3

In May, we viewed a live virtual tour of the Advance3 where we were shown some of the expert work on how the demonstrator engine was being assembled and the high degree of instrumentation required in preparation for the initial engine test.

The Advance3 reflects a new engine core architecture (the high pressure system and the intermediate pressure system differ from the Trent engine family) and includes new technology such as a radically revised fuel system.

The Committee was updated on each of the businesses' electrical systems demonstrator programmes which vary significantly in complexity and pace. This highlighted implications in terms of skills, the requirement for a resourcing strategy, as well as a shift in thinking for senior leadership.

Rolls-Royce has a solid platform of electrical activities on which to build, covering rail (hybrid trains), power generation (including micro-grids), marine (hybrid and full electric ships) and applications in aerospace. We also noted the strong opportunity for cross-company synergies in electrical systems.

In May, as part of the review of competitiveness of civil aero engines, we visited our site in Derby, UK, where we received a tour of the Trent XWB final assembly and test facility, the large aero engine development test facility and test preparation area.

We also received a virtual tour of the UltraFan power gearbox rig via videolink from Dahlewitz, Germany. This facility is the largest of its kind in the world and is critical to supporting changes to engine architecture and component technologies to form the core of the next generation of more efficient Rolls-Royce aero engines. The rig simulates real in-service pitch and roll conditions by tilting the gearbox to place it under different torque and load, which enables analysis of oil flows for heat management. The rig is now fully functional and provides the Group with a very powerful capability for the future.

In September, the Board visited our site in Bristol, UK and also had the opportunity to visit the National Composites Centre (NCC). The NCC was established by the University of Bristol, in collaboration with sponsors including Rolls-Royce, and its key objective is to enable UK design and manufacturing enterprises to deliver winning solutions in the application of composites. The visit provided valuable background to our understanding of the technology development route for the UltraFan composite fan system.

In December 2016, the Committee was allocated responsibility for overseeing management of the Group's new principal risk of disruptive technologies and business models. This was brought to the Committee twice for discussion in 2017. We were updated on the key processes the Company has developed to keep the risk under review, including five advisory boards with external subject matter experts that report to and support the ELT.

Looking forward

In my view, the Science & Technology Committee is the most exciting and uplifting of the Board committees and I feel privileged to chair it. Our subject matter is the life blood of the Group vested in some extremely talented people. I am grateful to all of them for the support they have given during the year.

I have been pleased with our progress this year as the Group has carried out a detailed review of its technology strategy.

In 2018, we will continue to focus on supporting management and the Board in further deploying this strategy with a particular focus on technology skills and capability development and building partnerships to accelerate progress.

Sir Kevin Smith
Chairman of the Science & Technology Committee

Deborah Harris, STEM Ambassador and Rolls-Royce engineering graduate, hosted the 2017 Science Prize award event at the London Science Museum

ROLLS-ROYCE SCIENCE PRIZE

The science prize initiative was launched in 2004 as part of the Group's continuing commitment to science education. It is designed to foster, recognise and reward outstanding work in science and maths teaching. It promotes innovative and sustainable strategies for teaching and contributes to continuous professional development by providing science and maths teachers with the support they need to implement big ideas. Since the launch of the programme, over 20,000 applications have been received and £1.5 million has been given out in prize money to over 600 schools across the UK.

Responsibility Statements

Statement of Directors' responsibilities in respect of the Annual Report and the Financial Statements

The Directors, as detailed on pages 66 to 68, are responsible for preparing the Annual Report and the Group and parent company Financial Statements in accordance with applicable law and regulations.

Company law requires the Directors to prepare Group and parent company Financial Statements for each financial year. Under that law they are required to prepare the Group Financial Statements in accordance with IFRS as adopted by the EU and applicable law and have elected to prepare the parent company financial statements in accordance with UK Accounting Standards, including FRS 101 *Reduced Disclosure Framework*, and applicable law.

Under company law, the Directors must not approve the Financial Statements unless they are satisfied that they give a true and fair view of the state of affairs of the Group and parent company and of their profit or loss for that period.

In preparing each of the Group and parent company Financial Statements, the Directors are required to:

— select suitable accounting policies and then apply them consistently;

— make judgements and estimates that are reasonable, relevant, reliable and prudent;

— for the Group Financial Statements, state whether they have been prepared in accordance with IFRS as adopted by the EU;

— for the parent company Financial Statements, state whether applicable UK Accounting Standards have been followed, subject to any material departures disclosed and explained in the parent company Financial Statements;

— assess the Group and parent Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern; and

— use the going concern basis of accounting unless they either intend to liquidate the Group or the parent Company or to cease operations, or have no realistic alternative but to do so.

The Directors are responsible for keeping adequate accounting records that are sufficient to show and explain the parent and Group's transactions and disclose with reasonable accuracy at any time the financial position of the parent company and enable them to ensure that its Financial Statements comply with the Companies Act 2006. They are responsible for such internal control as they determine is necessary to enable the preparation of Financial Statements that are free from material misstatement, whether due to fraud or error and have general responsibility for taking such steps as are reasonably open to them to safeguard the assets of the Group and to prevent and detect fraud and other irregularities.

Under applicable law and regulations, the Directors are also responsible for preparing a Strategic Report, Directors' Report, Directors' remuneration report and corporate governance statement that complies with that law and those regulations.

The Directors are responsible for the maintenance and integrity of the corporate and financial information included on the Group's website. Legislation in the UK governing the preparation and dissemination of Financial Statements may differ from legislation in other jurisdictions.

Responsibility Statements under the Disclosure Guidance and Transparency Rules

Each of the persons who is a Director at the date of approval of this report confirms that to the best of his or her knowledge that:

— each of the Group and parent company Financial Statements, prepared in accordance with IFRS as adopted by the EU and UK Accounting Standards respectively, gives a true and fair view of the assets, liabilities, financial position and profit or loss of the Company and the undertakings included in the consolidation taken as a whole;

— the Strategic Report on pages 1 to 63 and Directors' Report on pages 64 to 114 and pages 198 to 201 include a fair review of the development and performance of the business and the position of the Company and the undertakings included in the consolidation taken as a whole, together with a description of the principal risks and uncertainties that they face; and

— the Annual Report, taken as a whole, is fair, balanced and understandable and provides the information necessary for shareholders to assess the Group's position and performance, business model and strategy.

By order of the Board

Pamela Coles
Company Secretary
6 March 2018

Financial Statements

Consolidated Financial Statements

Company Financial Statements

Consolidated Income Statement

For the year ended 31 December 2017

	Notes	2017 £m	2016 £m
Revenue	2	16,307	14,955
Cost of sales		(13,134)	(11,907)
Gross profit		3,173	3,048
Commercial and administrative costs [1]		(1,222)	(2,203)
Research and development costs	3	(795)	(918)
Share of results of joint ventures and associates	11	131	117
Operating profit *		1,287	44
Gains arising on the acquisition of ITP Aero	25	798	–
Loss on disposal of business		–	(3)
Profit before financing and taxation	2	2,085	41
Financing income	4	2,973	96
Financing costs	4	(161)	(4,773)
Net financing		2,812	(4,677)
Profit/(loss) before taxation		4,897	(4,636)
Taxation	5	(689)	604
Profit/(loss) for the year		4,208	(4,032)
Attributable to:			
Ordinary shareholders		4,207	(4,032)
Non-controlling interests		1	–
Profit/(loss) for the year		4,208	(4,032)
Earnings per ordinary share attributable to ordinary shareholders:	6		
Basic		229.40p	(220.08)p
Diluted		228.64p	(220.08)p
Payments to ordinary shareholders in respect of the year:	17		
Per share		11.7p	11.7p
Total		216	215
* Underlying operating profit	2	1,175	915

[1] In 2016, 'commercial and administrative costs' include £671m for financial penalties from agreements with investigating bodies (see note 23) and £306m for the restructuring of the UK pension schemes (see note 19).

Consolidated Statement of Comprehensive Income

For the year ended 31 December 2017

	Notes	2017 £m	2016 £m
Profit/(loss) for the year		**4,208**	(4,032)
Other comprehensive income (OCI)			
Movements in post-retirement schemes	19	735	495
Share of OCI of joint ventures and associates	11	(1)	(2)
Related tax movements	5	(307)	(179)
Items that will not be reclassified to profit or loss		**427**	314
Foreign exchange translation differences on foreign operations		(142)	861
Share of OCI of joint ventures and associates	11	(5)	(7)
Related tax movements	5	1	4
Items that may be reclassified to profit or loss		**(146)**	858
Total comprehensive income for the year		**4,489**	(2,860)
Attributable to:			
Ordinary shareholders		4,488	(2,860)
Non-controlling interests		1	–
Total comprehensive income for the year		**4,489**	(2,860)

Consolidated Balance Sheet

At 31 December 2017

	Notes	2017 £m	2016 £m
ASSETS			
Intangible assets	9	7,063	5,080
Property, plant and equipment	10	4,624	4,114
Investments – joint ventures and associates	11	688	844
Investments – other	11	26	38
Other financial assets	17	610	382
Deferred tax assets	5	271	876
Post-retirement scheme surpluses	19	2,125	1,346
Non-current assets		15,407	12,680
Inventories	12	3,660	3,086
Trade and other receivables	13	7,919	6,956
Taxation recoverable		17	32
Other financial assets	17	36	5
Short-term investments		3	3
Cash and cash equivalents	14	2,953	2,771
Assets held for sale		7	5
Current assets		14,595	12,858
TOTAL ASSETS		30,002	25,538
LIABILITIES			
Borrowings	15	(82)	(172)
Other financial liabilities	17	(581)	(651)
Trade and other payables	16	(9,527)	(7,957)
Current tax liabilities		(209)	(211)
Provisions for liabilities and charges	18	(526)	(543)
Current liabilities		(10,925)	(9,534)
Borrowings	15	(3,406)	(3,185)
Other financial liabilities	17	(2,435)	(5,129)
Trade and other payables	16	(4,178)	(3,459)
Deferred tax liabilities	5	(1,144)	(776)
Provisions for liabilities and charges	18	(357)	(216)
Post-retirement scheme deficits	19	(1,387)	(1,375)
Non-current liabilities		(12,907)	(14,140)
TOTAL LIABILITIES		(23,832)	(23,674)
NET ASSETS		6,170	1,864
EQUITY			
Called-up share capital	20	368	367
Share premium account		195	181
Capital redemption reserve		162	162
Cash flow hedging reserve		(112)	(107)
Other reserves		673	814
Retained earnings		4,881	445
Equity attributable to ordinary shareholders		6,167	1,862
Non-controlling interests		3	2
TOTAL EQUITY		6,170	1,864

The Consolidated Financial Statements on pages 116 to 171 were approved by the Board on 6 March 2018 and signed on its behalf by:

Warren East
Chief Executive

Stephen Daintith
Chief Financial Officer

Consolidated Cash Flow Statement

For the year ended 31 December 2017

	Notes	2017 £m	2016 £m
Operating profit		1,287	44
Loss on disposal of property, plant and equipment		11	5
Share of results of joint ventures and associates	11	(131)	(117)
Dividends received from joint ventures and associates		79	74
Amortisation and impairment of intangible assets	9	430	628
Depreciation and impairment of property, plant and equipment	10	450	426
Impairment of investments	11	14	–
Increase in provisions		58	44
Increase in inventories		(235)	(161)
(Increase)/decrease in trade and other receivables		(462)	54
(Decrease)/increase in amounts payable for financial penalties from agreements with investigating bodies		(286)	671
Other increase in trade and other payables		1,411	234
Cash flows on other financial assets and liabilities held for operating purposes		(661)	(608)
Net defined benefit post-retirement cost recognised in profit before financing	19	240	510
Cash funding of defined benefit post-retirement schemes	19	(249)	(271)
Share-based payments	21	34	35
Net cash inflow from operating activities before taxation		1,990	1,568
Taxation paid		(180)	(157)
Net cash inflow from operating activities		1,810	1,411
Cash flows from investing activities			
Additions of unlisted investments	11	(4)	–
Additions of intangible assets	9	(973)	(631)
Disposals of intangible assets	9	7	8
Purchases of property, plant and equipment		(773)	(585)
Government grants received		14	15
Disposals of property, plant and equipment		4	8
Acquisitions of business	25	263	(6)
Consolidation of previously unconsolidated subsidiary		1	–
Disposals of other businesses		–	7
Increase in share in joint ventures	11	–	(154)
Other investments in joint ventures and associates	11	(48)	(30)
Cash and cash equivalents of joint ventures reclassified as joint operations		–	5
Net cash outflow from investing activities		(1,509)	(1,363)
Cash flows from financing activities			
Repayment of loans		(160)	(434)
Proceeds from increase in loans and finance leases		366	93
Capital element of finance lease payments		(6)	(4)
Net cash flow from increase/(decrease) in borrowings and finance leases		200	(345)
Interest received		14	14
Interest paid		(64)	(84)
Interest element of finance lease payments		(3)	(2)
Increase in short-term investments		–	(1)
Issue of ordinary shares (net of expenses)		21	1
Purchase of ordinary shares – other		(24)	(21)
Redemption of C Shares		(214)	(301)
Net cash outflow from financing activities		(70)	(739)
Change in cash and cash equivalents		231	(691)
Cash and cash equivalents at 1 January		2,771	3,176
Exchange (losses)/gains on cash and cash equivalents		(69)	286
Cash and cash equivalents at 31 December		2,933	2,771

Consolidated Cash Flow Statement continued

For the year ended 31 December 2017

	2017 £m	2016 £m
Reconciliation of movements in cash and cash equivalents to movements in net funds		
Change in cash and cash equivalents	231	(691)
Cash flow from (increase)/decrease in borrowings and finance leases	(200)	345
Cash flow from increase in short-term investments	–	1
Change in net funds resulting from cash flows	31	(345)
Net funds (excluding cash and cash equivalents) on acquisition of ITP Aero	(34)	–
Net funds (excluding cash and cash equivalents) of previously unconsolidated subsidiary	(18)	–
Net funds (excluding cash and cash equivalents) of joint ventures reclassified as joint operations	–	(9)
Exchange (losses)/gains on net funds	(59)	240
Fair value adjustments	131	(345)
Movement in net funds	51	(459)
Net funds at 1 January excluding the fair value of swaps	(583)	(124)
Net funds at 31 December excluding the fair value of swaps	(532)	(583)
Fair value of swaps hedging fixed rate borrowings	227	358
Net funds at 31 December	(305)	(225)

The movement in net funds (defined by the Group as including the items shown below) is as follows:

	At 1 January 2017 £m	Funds flow £m	Net funds on acquisition of business £m	Net funds on consolidation of previously unconsolidated subsidiary £m	Exchange differences £m	Fair value adjustments £m	Reclassifications £m	At 31 December 2017 £m
Cash at bank and in hand	872	(5)	–	–	(29)	–	–	838
Money-market funds	552	44	–	–	(7)	–	–	589
Short-term deposits	1,347	212	–	–	(33)	–	–	1,526
Overdrafts	–	(20)	–	–	–	–	–	(20)
Cash and cash equivalents	2,771	231	–	–	(69)	–	–	2,933
Short-term investments	3	–	–	–	–	–	–	3
Other current borrowings	(169)	159	(6)	(18)	3	–	(8)	(39)
Non-current borrowings	(3,121)	(280)	(28)	–	(2)	131	8	(3,292)
Finance leases	(67)	(79)	–	–	9	–	–	(137)
Financial liabilities	(3,357)	(200)	(34)	(18)	10	131	–	(3,468)
Net funds excluding fair value swaps	(583)	31	(34)	(18)	(59)	131	–	(532)
Fair value of swaps hedging fixed rate borrowings	358					(131)		227
Net funds	(225)	31	(34)	(18)	(59)	–	–	(305)

Consolidated Statement of Changes in Equity

For the year ended 31 December 2017

	Notes	Attributable to ordinary shareholders								
	Notes	Share capital £m	Share premium £m	Capital redemption reserve £m	Cash flow hedging reserve [1] £m	Other reserves [2] £m	Retained earnings [3] £m	Total £m	Non-controlling interests (NCI) £m	Total equity £m
At 1 January 2016		367	180	161	(100)	(51)	4,457	5,014	2	5,016
Loss for the year		–	–	–	–	–	(4,032)	(4,032)	–	(4,032)
Foreign exchange translation differences on foreign operations		–	–	–	–	861	–	861	–	861
Movement on post-retirement schemes	19	–	–	–	–	–	495	495	–	495
Share of other comprehensive income of joint ventures and associates	11	–	–	–	(7)	–	(2)	(9)	–	(9)
Related tax movements	5	–	–	–	–	4	(179)	(175)	–	(175)
Total comprehensive income for the year		–	–	–	(7)	865	(3,718)	(2,860)	–	(2,860)
Arising on issues of ordinary shares		–	1	–	–	–	–	1	–	1
Issue of C Shares [4]	17	–	–	(301)	–	–	1	(300)	–	(300)
Redemption of C Shares	17	–	–	302	–	–	(302)	–	–	–
Ordinary shares purchased		–	–	–	–	–	(21)	(21)	–	(21)
Share-based payments – direct to equity [5]		–	–	–	–	–	30	30	–	30
Related tax movements	5	–	–	–	–	–	(2)	(2)	–	(2)
Other changes in equity in the year		–	1	1	–	–	(294)	(292)	–	(292)
At 1 January 2017		367	181	162	(107)	814	445	1,862	2	1,864
Profit for the year		–	–	–	–	–	4,207	4,207	1	4,208
Foreign exchange translation differences on foreign operations		–	–	–	–	(142)	–	(142)	–	(142)
Movement on post-retirement schemes	19	–	–	–	–	–	735	735	–	735
Share of other comprehensive income of joint ventures and associates	11	–	–	–	(5)	–	(1)	(6)	–	(6)
Related tax movements	5	–	–	–	–	1	(307)	(306)	–	(306)
Total comprehensive income for the year		–	–	–	(5)	(141)	4,634	4,488	1	4,489
Arising on issues of ordinary shares		1	14	–	–	–	(14)	1	–	1
Issue of C Shares [4]	17	–	–	(215)	–	–	1	(214)	–	(214)
Redemption of C Shares	17	–	–	215	–	–	(215)	–	–	–
Ordinary shares purchased		–	–	–	–	–	(24)	(24)	–	(24)
Share-based payments – direct to equity [5]		–	–	–	–	–	51	51	–	51
Related tax movements	5	–	–	–	–	–	3	3	–	3
Other changes in equity in the year		1	14	–	–	–	(198)	(183)	–	(183)
At 31 December 2017		368	195	162	(112)	673	4,881	6,167	3	6,170

[1] See accounting policies note 1.
[2] Other reserves include a merger reserve of **£3m** (2016: £3m, 2015: £3m) and a translation reserve of **£670m** (2016: £811m, 2015: £(54)m).
[3] At 31 December 2017, **6,466,153** ordinary shares with a net book value of **£52m** (2016: 6,854,216, 2015: 5,894,064 ordinary shares with net book values of £56m and £52m respectively) were held for the purpose of share-based payment plans and included in retained earnings. During the year, **4,992,304** ordinary shares with a net book value of **£42m** (2016: 1,955,390 shares with a net book value of £17m) vested in share-based payment plans. During the year, the Company acquired **92,537** (2016: 165,542) of its ordinary shares via reinvestment of dividends received on its own shares and purchased **2,711,349** (2016: 2,750,000) of its ordinary shares through purchases on the London Stock Exchange. During the year, the Company issued **1,740,355** new ordinary shares (2016: nil) to the Group's share trust for its employee share-based payment plans with a net book value of **£14m** (2016: nil).
[4] In Rolls-Royce Holdings plc's own Financial Statements, C Shares are issued from the merger reserve. As this reserve is eliminated on consolidation, in the Consolidated Financial Statements, the C Shares are shown as being issued from the capital redemption reserve.
[5] Share-based payments – direct to equity is the share based payment charge for the year less the actual cost of vesting and cash received on share based schemes vesting.

Notes to the Consolidated Financial Statements

1 Accounting policies

The Company
Rolls-Royce Holdings plc (the 'Company') is a company domiciled in the United Kingdom. The Consolidated Financial Statements of the Company for the year ended 31 December 2017 consist of the consolidation of the Financial Statements of the Company and its subsidiaries (together referred to as the 'Group') and include the Group's interest in jointly controlled and associated entities.

Basis of preparation and statement of compliance
In accordance with European Union (EU) regulations, these Financial Statements have been prepared in accordance with International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board (IASB), as adopted for use in the EU effective at 31 December 2017 (Adopted IFRS).

The Company has elected to prepare its individual Company Financial Statements under FRS 101 *Reduced Disclosure Framework*. They are set out on pages 172 to 174 and the accounting policies in respect of Company Financial Statements are set out on page 173.

These Consolidated Financial Statements have been prepared on the historical cost basis except where Adopted IFRS requires the revaluation of financial instruments to fair value and certain other assets and liabilities on an alternative basis – most significantly post-retirement scheme obligations are valued on the basis required by IAS 19 *Employee Benefits* – and on a going concern basis as described on page 63.

The Consolidated Financial Statements are presented in sterling which is the Company's functional currency.

The preparation of Financial Statements in conformity with Adopted IFRS requires management to make judgements and estimates that affect the reported amounts of assets and liabilities at the date of the Financial Statements and the reported amounts of revenue and expenses during the reporting period. Actual results could differ from those estimates.

Key areas of judgement

Introduction
The Group generates a significant portion of its revenue and profit on aftermarket arrangements arising from the installed original equipment (OE) fleet. As a consequence, the Group will often agree contractual prices for OE deliveries that take into account the anticipated aftermarket arrangements. Accounting policies reflect this aspect of the business model, in particular the policies for the recognition of contractual aftermarket rights and the linkage of OE and actual aftermarket arrangements.

When a civil large engine is sold, the economic benefits received usually far exceed the cash receivable under the contract, due to the rights to valuable aftermarket spare parts business. However, because the value of this right cannot be estimated with enough precision, accounting standards require that the revenue recognised in the accounts on sale of the engine is restricted to a total amount that results in a break even position. The amount of the revenue recognised in excess of cash receivable is recognised as an intangible asset, which is called a contractual aftermarket right (CAR).

There is only one circumstance where accounting standards require the recognition of more of the value of the aftermarket rights when an engine is sold. This occurs where a long-term aftermarket contract (generally a TotalCare agreement – TCA) and an engine sale contract have been negotiated together. In this circumstance, the part of the aftermarket rights covered by the TCA can be valued much more precisely and is recognised at the time of the engine sale through accounting for the engine sale and TCA as a single contract. Nevertheless, the accounting profit recognised is still less than the economic benefits on the sale as there will be other valuable aftermarket rights (for instance for the period beyond the TCA term or for the sale of parts which are outside the scope of the TCA) which cannot be recognised.

The Group enters into arrangements with long-term suppliers to share the risks and rewards of major programmes – risk and revenue sharing arrangements (RRSAs). The accounting policy for these arrangements has been chosen, consistent with Adopted IFRS, to reflect their commercial effect.

The key judgements in determining these accounting policies are described below.

Contractual aftermarket rights
On delivery of Civil Aerospace engines, the Group has contractual rights to supply aftermarket parts to the customers and its intellectual rights, warranty arrangements and, where relevant, statutory airworthiness or other regulatory requirements provide reasonable control over this supply. The Directors consider that these rights meet the definition of an intangible asset in IAS 38 *Intangible Assets*. However, the Directors do not consider that it is possible to determine a reliable fair value for this intangible asset. Accordingly, an intangible asset (CAR) is only recognised on the occasions where the contractual price of the engine is below the cost of manufacture and then only to the extent of this deficit, as this amount is reliably measurable. An equal amount of revenue is recognised at the same point. Where a long-term aftermarket contract is linked to the OE contract (see page 123), the contractual price of the engine (including amounts allocated from the aftermarket contract) is above its cost of manufacture; consequently no CAR is recognised.

Measure of performance on long-term aftermarket contracts
A large proportion of the Group's activities relate to long-term aftermarket contracts, in particular TotalCare and similar arrangements in Civil Aerospace. Under these contracts, the Group's primary obligation is to maintain customers' equipment in an operational condition and it achieves this by undertaking various activities, such as engine monitoring, line maintenance and repair and overhaul, over the

1 Accounting policies continued

period of the contract. In general, the Directors consider that the stage of performance of the contract should be by reference to the obligation to maintain an operational fleet and that this is best measured by the operation of the fleet. Accordingly, stage of performance is measured by reference to flying hours of each fleet under contract. Consistent with the above, the Directors also consider that, in general, all costs incurred to meet the primary obligation should be included in the accounting for these contracts, even if these costs had not been originally anticipated. This includes the additional costs being incurred to address the Trent 1000 and Trent 900 in-service issues. (In contrast, provision is made when additional costs on non long-term contract arrangements are identified.)

Linkage of OE and long-term aftermarket contracts

Where the key terms of a long-term aftermarket contract are substantively agreed (e.g. in a term sheet) at the same time as an OE contract with the operator, the Directors consider these to be linked for accounting purposes and they are treated as a single contract, as this best reflects the overall commercial effect. Where the OE contract is not with the operator (e.g. where it is with an OE manufacturer or a lessor) the contracts are not linked as they were not negotiated on a unified basis.

Sales of spare engines to joint ventures

Whether the sales price reflects fair value when the Group sells spare engines to a joint venture company.

Risk and revenue sharing arrangements

RRSAs with key suppliers (workshare partners) are a feature of our Civil Aerospace business. Under these contractual arrangements, the key commercial objectives are that: (i) during the development phase the workshare partner shares in the risks of developing an engine by performing its own development work, providing development parts and paying a non-refundable cash entry fee; and (ii) during the production phase it supplies components in return for a share of the programme revenue as a 'life of type' supplier (i.e. as long as the engine remains in service). The share of development costs borne by the workshare partner and of the revenue it receives reflect the partner's proportionate cost of providing its production parts compared to the overall manufacturing cost of the engine. The share is based on a jointly-agreed forecast at the commencement of the arrangement.

These arrangements are complex and have features that could be indicative of: a collaboration agreement, including sharing of risk and cost in a development programme; a long-term supply agreement; sharing of intellectual property; or a combination of these. In summary, and as described below, the Directors' view is that the development and production phases of the contract should be considered separately in accounting for the RRSA, which results in the entry fee being matched against the non-recurring costs incurred by the Group.

Having considered the features above, the Directors consider that there is no directly applicable IFRS to determine an accounting policy for the recognition of entry fees of this nature in the income statement. Consequently, in developing an accounting treatment for such entry fees that best reflects the commercial objectives of the contractual arrangement, the Directors have analysed these features in the context of relevant accounting pronouncements (including those of other standard setters where these do not conflict with IFRS) and have weighed the importance of each feature in faithfully representing the overall commercial effect. The most important considerations that need to be balanced are: the transfer of development risk; the workshare partner receiving little standalone value from the payment of the entry fee; and the overall effect being collaboration between the parties which falls short of being a joint venture as the Group controls the programme. Also important in the analysis is the fact that, whilst the Group and the workshare partner share risks and rewards through the life of the contract, these risks and rewards are very different during the development and production phases.

In this context, the entry fee might be considered to represent: an amount paid as an equalisation of development costs; a payment to secure a long-term supply arrangement; a purchase of intellectual property; or some combination thereof. The accounting under these different scenarios could include: recognition of the entry fee to match the associated costs in the income statement; being spread over the life of the programme as a reduction in the cost of supply during production; or being spread over the time period of the access to the intellectual property by the workshare partner.

The Directors consider that the most important features of the arrangement are the risk sharing and that the entry fee represents a contribution to the development costs that the Group incurs in excess of its proportionate programme share. The key judgements taken in reaching this view are: the entry fee is determined by the parties on that basis and the contract specifies that, in the event that a derivative engine is to be developed, additional entry fees will also be calculated on this basis; the workshare partners describe the entry fee in this way; although the workshare partner receives little stand-alone value from paying the entry fee, the entry fee together with its own development activities represent its aggregate investment in the collaboration; the amount of the entry fee does not include any amount in excess of that necessary to equalise forecast development costs; the Group is not 'on risk' for the full development costs it incurs but for that amount less the entry fees received.

The resulting accounting policy (described on page 126) represents the commercial effect of the contractual arrangements in that the Group recognises only those development costs to which it is exposed (and thus reflects the significant transfer of development risk to the workshare partner) and the costs of supply of parts during the production phase is measured at the workshare partner's share of programme revenue (which we consider to be a commercial fair value). The Directors do not consider that accounting which would result in entry fees only being recognised in the production phase would appropriately reflect the sharing of development risk. Accordingly, the Directors believe that the policy adopted best reflects the commercial objectives of the arrangements, the nature of the relationship with the workshare partner and is in accordance with Adopted IFRS.

1 Accounting policies continued

As described in the 2013 Annual Report, an alternative view is that the RRSA contract cannot be divided into separate development and production phases, as the fees and development components received by the Group during the development phase are exchanged for the obligation to pay the supplier a predetermined share of any sales receipts during the production phase. On this basis, the entry fees received would be deferred in their entirety and recognised over the period of production. The size of the difference between the two approaches is monitored and is not currently expected to become material in the foreseeable future. The impact of the different approaches on profit before tax and net assets, which is not considered to be material, is as follows:

	2017			2016		
	Reported profit before tax £m	Underlying profit before tax £m	Net assets £m	Reported profit before tax £m	Underlying profit before tax £m	Net assets £m
Adopted policy	**4,897**	**1,071**	**6,170**	(4,636)	813	1,864
Difference	**23**	**23**	**(423)**	(2)	(2)	(442)
Alternative policy [1]	**4,920**	**1,094**	**5,747**	(4,638)	811	1,422

[1] If the alternative policy were adopted, the difference would be included in operating profit, which would change from **£1,287m** as reported to **£1,310m** (2016: £44m to £42m).

As part of our assessment of accounting policies under IFRS 15 (see page 131), we have concluded that the way we account for the entry fees received from RRSAs should be aligned with how we account for participation fees we pay to airframers (which will change on adoption of IFRS 15). This will result in an accounting policy similar to the alternative view set out above.

Internally-generated development costs

IAS 38 requires that internally generated development costs should only be capitalised if strict criteria are met, in particular relating to technical feasibility and generation of future economic benefits. The Group incurs significant research and development expenditure in respect of various development programmes, most notably in Civil Aerospace. Determining when capitalisation should commence and cease is a critical judgement as is the determination of when subsequent expenditure on the programme assets should be capitalised.

Within the Group there is an established Product Introduction and Lifecycle Management process ('PILM') process in place. This is a gated process which assesses both the technical feasibility and commercial viability of programmes. A multi-functional team is involved in the assessment ensuring the technical and operational aspects of the programme have been assessed together with the financial assessment. Until the programme has obtained sign off on the criteria set out under 'Research and development costs' on page 128, all expenditure is expensed as incurred.

Subsequent expenditure which enhances the performance of the engine and the economic benefits to the Group is capitalised. This expenditure is referred to as enhanced performance and is governed by the PILM process referred to above. Expenditure on sustaining engineering is expensed as incurred.

Following a review of progress on Civil Aerospace programmes during 2017, the point at which the relevant criteria are met has been moved one gate earlier than in the past. This has resulted in an additional £83m of development costs being capitalised than otherwise would have been.

Key sources of estimation uncertainty

In applying the accounting policies, estimates are made in many areas; the actual outcome may differ from that calculated. The key sources of estimation uncertainty at the balance sheet date, that have a significant risk of causing material adjustment to the carrying amounts of assets and liabilities within the next financial year, are set out below. The estimation of the relevant assets and liabilities involves the combination of a number of assumptions. Sensitivities are disclosed in the relevant notes where this is appropriate and practicable.

Forecasts and discount rates

The carrying values of a number of items on the balance sheet are dependent on the estimates of future cash flows arising from the Group's operations, in particular:

- The assessment of whether the goodwill (carrying value at 31 December 2017: **£1,545m**, 31 December 2016: £1,537m), arising on the consolidation of acquired businesses, is impaired is dependent on the present value of the future cash flows expected to be generated by the business. Sensitivities to impairment risk on Marine goodwill are shown in note 9.
- The assessment as to whether there are any indications of impairment of development, participation, certification, customer relationships and contractual aftermarket rights recognised as intangible assets (carrying values at 31 December 2017: **£4,687m**, 31 December 2016: £2,846m) is dependent on estimates of cash flows generated by the relevant assets and the discount rate used to calculate a present value. These estimates include the performance of long-term contractual arrangements as described below, as well as estimates for future market share, pricing and unit cost for uncontracted business. The risk of impairment is generally higher for newer programmes and for customer-specific intangible assets (CARs) for launch customers and typically reduces as programmes become more established.

Assessment of long-term contractual arrangements

The Group has long-term contracts that fall into different accounting periods and which can extend over significant periods – the most significant of these are long-term service arrangements in the Civil Aerospace business. The estimated revenue and costs are inherently imprecise and significant estimates are required to assess: engine flying hours, time on wing and other operating parameters; the pattern of future maintenance activity (including the in-service fleet issues) and the costs to be incurred; lifecycle cost improvements over the

1 Accounting policies continued

term of the contracts and escalation of revenue and costs. The estimates take account of the inherent uncertainties and the risk of non-recovery of any resulting contract balances. In addition, many of the revenues and costs are denominated in currencies other than that of the relevant Group undertaking.

These are translated at an estimated long-term exchange rate, based on historical trends. In 2016, the US dollar long-term exchange rate was reduced by five cents, resulting in a one-off benefit to profit before tax of £35m.

Post-retirement benefits

The Group's defined benefit pension schemes and similar arrangements are assessed annually in accordance with IAS 19. The accounting valuation, which is based on assumptions determined with independent actuarial advice, resulted in a net surplus of **£738m** before deferred taxation being recognised on the balance sheet at 31 December 2017 (31 December 2016: net deficit £29m). The size of the net surplus/deficit is sensitive to the market value of the assets held by the schemes and to actuarial assumptions, which include price inflation, pension and salary increases, the discount rate used in assessing actuarial liabilities, mortality and other demographic assumptions and the levels of contributions. Further details and sensitivities are included in note 19.

Provisions

As described in the accounting policy on page 129, the Group measures provisions (carrying value at 31 December 2017: **£883m**, 31 December 2016: £759m) at the Directors' best estimate of the expenditure required to settle the obligation at the balance sheet date. These estimates take account of information available and different possible outcomes.

Taxation

The tax payable on profits is determined based on tax laws and regulations that apply in each of the numerous jurisdictions in which the Group operates. Where the precise impact of these laws and regulations is unclear, or uncertain, then reasonable estimates may be used to determine the tax charge included in the Financial Statements.

The main area of uncertainty is in relation to cross-border transactions, entered into in the normal course of business, as the amount of income or profit taxable in each country involved can be subjective and therefore open to interpretation by the relevant tax authorities. This can result in disputes and possibly litigation.

Tax provisions require management to make judgements and estimates of exposures in relation to tax audit issues and other areas of uncertainty. Contingent liabilities in respect of any tax disputes or litigation, are covered in note 23. All provisions are in current liabilities.

Deferred tax assets are recognised to the extent it is probable that future taxable profits will be available, against which the deductible temporary difference can be utilised, based on management's assumptions relating to the amounts and timing of future taxable profits.

Further details on the Group's tax position can be found on page 196.

Significant accounting policies

The Group's significant accounting policies are set out below. These accounting policies have been applied consistently to all periods presented in these Consolidated Financial Statements and by all Group entities.

Basis of consolidation

The Group Consolidated Financial Statements include the Financial Statements of the Company and its subsidiary undertakings together with the Group's share of the results of joint arrangements and associates made up to 31 December. In line with common practice in Germany, a small number of immaterial subsidiaries of Rolls-Royce Power Systems are not consolidated and are carried at cost in other investments. As set out in note 25, ITP Aero was acquired on 19 December 2017. It has been assumed that ITP Aero did not have any significant trading activity between the acquisition date and 31 December 2017.

A subsidiary is an entity controlled by the Company. Control exists when the Company has power over an entity, exposure to variable returns from its involvement with an entity and the ability to use its power over an entity so as to affect the Company's returns.

A joint arrangement is an entity in which the Group holds a long-term interest and which is jointly controlled by the Group and one or more other venturers under a contractual arrangement. Joint arrangements may be either joint ventures or joint operations. An associate is an entity, being neither a subsidiary nor a joint arrangement, in which the Group holds a long-term interest and where the Group has a significant influence. The results of joint ventures and associates are accounted for using the equity method of accounting. Joint operations are accounted for using proportionate accounting.

Any subsidiary undertaking, joint arrangement or associate sold or acquired during the year are included up to, or from, the date of change of control. Transactions with non-controlling interests are recorded directly in equity.

All intra-group transactions, balances, income and expenses are eliminated on consolidation. Adjustments are made to eliminate the profit or loss arising on transactions with joint arrangements and associates to the extent of the Group's interest in the entity.

1 Accounting policies continued

Revenue recognition

Revenue comprises sales to outside customers after discounts, excluding value added taxes.

Sales of products (both OE and spare parts) are recognised when the significant risks and rewards of ownership of the goods are transferred to the customer, the sales price agreed and the receipt of payment can be assured – this is generally on delivery. On occasion, the Group may participate in the financing of OE, most commonly by the provision of guarantees as described in note 18. In such circumstances, the contingent obligations arising under these arrangements are taken into account in assessing when the significant risks and rewards of ownership have been transferred to the customer. As described on page 122, a sale of OE at a contractual price below its cost of manufacture is considered to give rise to revenue to the extent that an intangible asset (contractual aftermarket right) is recognised at the same time.

Sales of services are recognised by reference to the stage of completion based on services performed to date. As described on page 122, the assessment of the stage of completion is dependent on the nature of the contract, but will generally be based on: flying hours or equivalent for long-term aftermarket arrangements where the service is provided on a continuous basis; costs incurred to the extent these relate to services performed up to the reporting date; or achievement of contractual milestones where relevant.

As described on page 123, **sales of products and services** are treated as though they are a single contract where these components have been negotiated as a single commercial package and are so closely interrelated that they do not operate independently of each other and are considered to form a single transaction with an overall profit margin. The total revenue is allocated between the two components such that the total agreed discount to list prices is allocated to revenue for each of the two components pro rata, based on list prices. The revenue is then recognised for each component on this basis as the products are delivered and services provided, as described above. Where the contractual price of the OE component is below the revenue allocated from the combined arrangement, this will give rise to an asset included in 'amounts recoverable on contracts'. This asset reduces as services are provided, increases as costs are incurred, and reduces to zero by the end of the contract. Where the balance is a liability, it is recognised in 'accruals and deferred income'.

Provided that the outcome of construction contracts can be assessed with reasonable certainty, the revenue and costs on such contracts are recognised based on stage of completion and the overall contract profitability. Full provision is made for any estimated losses to completion of contracts, having regard to the overall substance of the arrangements.

Progress payments received, when greater than recorded revenue, are deducted from the value of work in progress except to the extent that payments on account exceed the value of work in progress on any contract where the excess is included in accruals and deferred income within trade and other payables. The amount by which recorded revenue of long-term contracts is in excess of payments on account is classified as amounts recoverable on contracts and is separately disclosed within trade and other receivables.

TotalCare arrangements

As described above, these are accounted for on a stage of completion basis, with the stage of completion based on the proportion of flying hours completed compared to the total estimated under the contract. In making the assessment of future revenue, costs and the level of profit recognised the Group takes account of: (i) the forecast utilisation of the engines by the operator; (ii) the forecast costs to maintain the engines in accordance with the contractual requirements – the principal variables being the time between shop visits and the cost of each shop visit; and (iii) the recoverability of any contract asset arising. The Group benchmarks the forecast costs against previous programmes, recognising that the reliability of the forecasts will improve as operational experience of the engine increases. To the extent that actual costs differ from forecast costs or that forecast costs change, the cumulative impact is recognised in the period. An allowance is made against forecast contract revenue given the potential for reduced engine flying hours based on historical forecasting accuracy, the risk of aircraft being parked by the customer and the customer's creditworthiness. Again, changes in this allowance are recognised in the period.

Risk and revenue sharing arrangements

As described on page 123, the Group enters into arrangements with certain workshare partners under which these suppliers: (i) contribute to the forecast costs of developing an engine by performing their own development work, providing development parts and paying a non-refundable cash entry fee; and (ii) supply components for the production phase for which they receive consideration, which is an agreed proportion of the total programme revenue. Both the suppliers' contributions to the forecast non-recurring development costs and their consideration are determined by reference to their proportionate forecast scopes of supply relative to that of the engine overall. Once the forecast costs and the scopes of supply have been agreed at the inception of the contract, each party is then accountable for its own incurred costs. No accounting entries are recorded when the suppliers undertake development work or when development components are supplied. Cash sums received are recognised in the income statement, as a reduction in research and development costs incurred, to match the expensing of the Group's related costs – where the cash sums are received in advance of the related costs being expensed or where the related costs are capitalised as intangible assets, the recognition of the cash received is deferred (in accruals and deferred income) to match the recognition of the related expense or the amortisation of the related intangible asset respectively. The payments to suppliers of their shares of the programme revenue for their production components are charged to cost of sales as programme revenue arise.

The Group has arrangements with partners who do not undertake development work or supply parts. Such arrangements are considered to be financial instruments as defined by IAS 32 *Financial Instruments: Presentation* and are accounted for using the amortised cost method.

Government investment

Where a government or similar body has previously invested in a development programme, the Group treats payments to that body as royalty payments, which are matched to related sales.

1 Accounting policies continued

Government grants
Government grants are recognised in the income statement so as to match them with the related expenses that they are intended to compensate. Where grants are received in advance of the related expenses, they are included in the balance sheet as deferred income. Non-monetary grants are recognised at fair value.

Interest
Interest receivable/payable is credited/charged to the income statement using the effective interest method. Where borrowing costs are attributable to the acquisition, construction or production of a qualifying asset, such costs are capitalised as part of the specific asset.

Taxation
The tax charge/credit on the profit or loss for the year comprises current and deferred tax:

- Current tax is the expected tax payable for the year, using tax rates enacted or substantively enacted at the balance sheet date, and any adjustment to tax payable in respect of previous years.
- Deferred tax is provided using the balance sheet liability method, providing for temporary differences between the carrying amounts of the assets and liabilities for financial reporting purposes and the amounts used for tax purposes and is calculated using the enacted or substantively enacted rates that are expected to apply when the asset or liability is settled.

Tax is charged or credited in the income statement or other comprehensive income (OCI) as appropriate, except when it relates to items credited or charged directly to equity in which case the tax is also dealt with in equity.

Deferred tax liabilities are recognised for taxable temporary differences arising on investments in subsidiaries and joint arrangements, except where the Group is able to control the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future. Deferred tax is not recognised on taxable temporary differences arising on the initial recognition of goodwill or for temporary differences arising from the initial recognition of assets and liabilities in a transaction that is not a business combination and that affects neither accounting nor taxable profit.

Deferred tax assets are recognised only to the extent that it is probable that future taxable profits will be available against which the assets can be utilised.

Foreign currency translation
Transactions denominated in currencies other than the functional currency of the transacting Group undertaking are translated into the functional currency at the exchange rates ruling on the date of the transaction. Monetary assets and liabilities denominated in foreign currencies are translated into the relevant functional currency at the rate ruling at the year end. Exchange differences arising on foreign exchange transactions and the retranslation of assets and liabilities into functional currencies at the rate ruling at the year end are taken into account in determining profit before taxation.

The trading results of Group undertakings are translated into sterling at the average exchange rates for the year. The assets and liabilities of overseas undertakings, including goodwill and fair value adjustments arising on acquisition, are translated at the exchange rates ruling at the year end. Exchange adjustments arising from the retranslation of the opening net investments, and from the translation of the profits or losses at average rates, are recognised in OCI. The cumulative amount of exchange adjustments was, on transition to IFRS in 2004, deemed to be nil.

Financial instruments
IAS 39 *Financial Instruments: Recognition and Measurement* requires the classification of financial instruments into separate categories for which the accounting requirement is different. The Group has classified its financial instruments as follows:

- Short-term investments are generally classified as **available for sale**.
- Short-term deposits (principally comprising funds held with banks and other financial institutions), trade receivables and short-term investments not designated as available for sale are classified as **loans and receivables**.
- Borrowings, trade payables, financial RRSAs, and C Shares are classified as **other liabilities**.
- Derivatives, comprising foreign exchange, interest rate and commodity contracts are classified as **fair value through profit or loss**.

Financial instruments are recognised at the contract date and initially measured at fair value. Their subsequent measurement depends on their classification:

- **Available for sale** assets are held at fair value. Changes in fair value arising from changes in exchange rates are included in the income statement. All other changes in fair value are taken to equity. On disposal, the accumulated changes in value recorded in equity are included in the gain or loss recorded in the income statement.
- **Loans and receivables** and **other liabilities** are held at amortised cost and not revalued (except for changes in exchange rates and forecast contractual cash flows, which are included in the income statement) unless they are included in a fair value hedge accounting relationship. Where such a hedging relationship exists, the instruments are revalued in respect of the risk being hedged, with the change in value included in the income statement.
- **Fair value through profit or loss** items are held at fair value. Changes in fair value are included in the income statement unless the instrument is included in a cash flow hedge. If the instruments are included in an effective cash flow hedging relationship, changes in value are taken to equity. When the hedged forecast transaction occurs, amounts previously recorded in equity are recognised in the income statement.

Financial instruments are derecognised on expiry or when all contractual rights and obligations are transferred.

1 Accounting policies continued

Hedge accounting

The Group does not generally apply hedge accounting in respect of forward foreign exchange contracts or commodity swaps held to manage the cash flow exposures of forecast transactions denominated in foreign currencies or in commodities respectively.

The Group applies hedge accounting in respect of transactions entered into to manage the fair value and cash flow exposures of its borrowings. Forward foreign exchange contracts are held to manage the fair value exposures of borrowings denominated in foreign currencies and are designated as fair value hedges. Interest rate swaps are held to manage the interest rate exposures and are designated as fair value or cash flow hedges of fixed and floating rate borrowings respectively.

Changes in the fair values of derivatives designated as fair value hedges and changes in fair value of the related hedged item are recognised directly in the income statement.

Changes in the fair values of derivatives that are designated as cash flow hedges and are effective are recognised directly in equity. Any ineffectiveness in the hedging relationships is included in the income statement. The amounts deferred in equity are recognised in the income statement to match the recognition of the hedged item.

Hedge accounting is discontinued when the hedging instrument expires or is sold, terminated, exercised, or no longer qualifies for hedge accounting. At that time, for cash flow hedges and if the forecast transaction remains probable, any cumulative gain or loss on the hedging instrument recognised in equity is retained in equity until the forecast transaction occurs. If a hedged transaction is no longer expected to occur, the net cumulative gain or loss previously recognised in equity is transferred to the income statement.

The portion of a gain or loss on an instrument used to hedge a net investment in a foreign operation that is determined to be an effective hedge is recognised directly in equity. The ineffective portion is recognised immediately in the income statement. Gains and losses accumulated in the translation reserve will be recycled to profit when the foreign operation is sold.

Business combinations and goodwill

On the acquisition of a business, fair values are attributed to the identifiable assets and liabilities and contingent liabilities. Where fair values of acquired contingent liabilities cannot be measured reliably, the assumed contingent liability is not recognised but is disclosed in the same manner as other contingent liabilities.

Goodwill recognised represents the excess of the fair value of the purchase consideration over the fair value to the Group of the net of the identifiable assets acquired and the liabilities assumed. On transition to IFRS on 1 January 2004, business combinations were not retrospectively adjusted to comply with Adopted IFRS and goodwill was recognised based on the carrying value under the previous accounting policies. Goodwill in respect of the acquisition of a subsidiary is recognised as an intangible asset. Goodwill arising on the acquisition of joint arrangements and associates is included in the carrying value of the investment.

Certification costs and participation fees

Costs incurred in respect of meeting regulatory certification requirements for new civil aero engine/aircraft combinations including payments made to airframe manufacturers for this and participation fees are carried forward in intangible assets to the extent that they can be recovered out of future sales and are charged to the income statement over the programme life on a straight-line basis, up to a maximum of 15 years from the entry into service of the product.

Research and development

In accordance with IAS 38, expenditure incurred on research and development is distinguished as relating either to a research phase or to a development phase. All research phase expenditure is charged to the income statement. Development expenditure (which predominantly relates to Civil Aerospace engine programmes) is capitalised as an internally generated intangible asset (programme asset) only if it meets strict criteria, relating in particular to technical feasibility and generation of future economic benefits.

More specifically, development costs are capitalised from the point at which the following conditions have been met:

- the technical feasibility of completing the programme and the intention and ability (availability of technical, financial and other resources) to complete the programme asset and use or sell it;
- the probability that future economic benefits will flow from the programme asset; and
- the ability to measure reliably the expenditure attributable to the programme asset during its development.

Capitalisation continues until the point at which the programme asset meets its originally contracted technical specification (defined internally as the point at which the asset is capable of operating in the manner intended by management).

Subsequent expenditure is capitalised where it enhances the functionality of the programme asset and demonstrably generates an enhanced economic benefit to the Group. All other subsequent expenditure on programme assets is expensed as incurred.

Development expenditure capitalised is amortised on a straight-line basis up to a maximum of 15 years from the entry into service of the programme asset. In accordance with IAS 38, we assess the basis on which we amortise programme assets annually. At the end of 2017, we confirmed that we will commence amortisation of programme assets on a 15 year straight-line basis pro rata over the estimated number of units produced. We will apply this approach prospectively from 1 January 2018.

1 Accounting policies continued

Contractual aftermarket rights
As described under key judgements on page 122, the Group may sell OE to customers at a price below its cost, on the basis that it also receives valuable aftermarket rights. Such a sale is considered to give rise to an intangible asset which is recognised, in accordance with IAS 38, at the same time as the revenue at an amount equal to the cash deficit and is amortised on a straight-line basis over the period that highly probable aftermarket sales are expected to be earned.

Customer relationships
The fair value of customer relationships recognised as a result of a business combination relate to the acquired company's established relationships with its existing customers that result in repeat purchases and customer loyalty. Amortisation occurs on a straight-line basis over its useful economic life, up to a maximum of 15 years.

Software
The cost of acquiring software that is not specific to an item of property, plant and equipment is classified as an intangible asset and amortised on a straight-line basis over its useful economic life, up to a maximum of five years.

Property, plant and equipment
Property, plant and equipment are stated at cost less accumulated depreciation and any provision for impairment in value.

Depreciation is provided on a straight-line basis to write off the cost, less the estimated residual value, of property, plant and equipment over their estimated useful lives. No depreciation is provided on assets in the course of construction. Estimated useful lives are as follows:

- Land and buildings, as advised by the Group's professional advisers:
  - freehold buildings – five to 45 years (average 26 years);
  - leasehold buildings – lower of adviser's estimates or period of lease; and
  - no depreciation is provided on freehold land.
- Plant and equipment – five to 25 years (average 12 years).
- Aircraft and engines – five to 20 years (average 13 years).

Where the Group obtains effective control of customers' installed engines as a result of a TotalCare Flex arrangement, the fair value of these engines is recognised as an addition (shown separately in note 10). The corresponding liability is recognised either as deferred revenue or a financial liability depending on the precise nature of the arrangement.

Operating leases
Payments made and rentals received under operating lease arrangements are charged/credited to the income statement on a straight-line basis.

Impairment of non-current assets
Impairment of non-current assets is considered in accordance with IAS 36 *Impairment of Assets*. Where the asset does not generate cash flows that are independent of other assets, impairment is considered for the cash-generating unit to which the asset belongs. Goodwill and intangible assets not yet available for use are tested for impairment annually. Other intangible assets, property, plant and equipment and investments are assessed for any indications of impairment annually. If any indication of impairment is identified, an impairment test is performed to estimate the recoverable amount.

If the recoverable amount of an asset (or cash-generating unit) is estimated to be below the carrying value, the carrying value is reduced to the recoverable amount and the impairment loss is recognised as an expense. The recoverable amount is the higher of value in use or fair value less costs to sell, if this is readily available. The value in use is the present value of future cash flows using a pre-tax discount rate that reflects the time value of money and the risk specific to the asset.

Inventories
Inventories and work in progress are valued at the lower of cost and net realisable value. Cost comprises direct materials and, where applicable, direct labour costs and those overheads, including depreciation of property, plant and equipment, that have been incurred in bringing the inventories to their present location and condition. Net realisable value represents the estimated selling prices less all estimated costs of completion and costs to be incurred in marketing, selling and distribution.

Cash and cash equivalents
Cash and cash equivalents include cash at bank and in hand, investments in money-market funds and short-term deposits with a maturity of three months or less on inception. The Group considers overdrafts (repayable on demand) to be an integral part of its cash management activities and these are included in cash and cash equivalents for the purposes of the cash flow statement.

Provisions
Provisions are recognised when the Group has a present obligation as a result of a past event, and it is probable that the Group will be required to settle that obligation. Provisions are measured at the Directors' best estimate of the expenditure required to settle the obligation at the balance sheet date, and are discounted to present value where the effect is material.

1 Accounting policies continued

Post-retirement benefits

Pensions and similar benefits (principally healthcare) are accounted for under IAS 19.

For defined benefit plans, obligations are measured at discounted present value, using a discount rate derived from high-quality corporate bonds denominated in the currency of the plan, whilst plan assets are recorded at fair value. Surpluses in schemes are recognised as assets only if they represent economic benefits available to the Group in the future. A liability is recognised to the extent that the minimum funding requirements in respect of past service will give rise to an unrecognisable surplus.

The service and financing costs of such plans are recognised separately in the income statement:
- current service costs are spread systematically over the lives of employees;
- past service costs and settlements are recognised immediately; and
- financing costs are recognised in the periods in which they arise.

Actuarial gains and losses and movements in unrecognised surpluses and minimum funding liabilities are recognised immediately in OCI.

Payments to defined contribution schemes are charged as an expense as they fall due.

Share-based payments

The Group provides share-based payment arrangements to certain employees. These are principally equity-settled arrangements and are measured at fair value (excluding the effect of non-market based vesting conditions) at the date of grant. The fair value is expensed on a straight-line basis over the vesting period. The amount recognised as an expense is adjusted to reflect the actual number of shares or options that will vest, except where additional shares vest as a result of the total shareholder return (TSR) performance condition in the Performance Share Plan (PSP).

Cash-settled share options (grants in the International Sharesave plan) are measured at fair value at the balance sheet date. The Group recognises a liability at the balance sheet date based on these fair values, taking into account the estimated number of options that will actually vest and the relative completion of the vesting period. Changes in the value of this liability are recognised in the income statement for the year.

The cost of shares of Rolls-Royce Holdings plc held by the Group for the purpose of fulfilling obligations in respect of employee share plans is deducted from equity in the consolidated balance sheet. See note 21 for a further description of the share-based payment plans.

Customer financing support

In connection with the sale of its products, the Group will, on occasion, provide financing support for its customers. These arrangements fall into two categories: credit-based guarantees and asset-value guarantees. In accordance with the requirements of IAS 39 and IFRS 4 *Insurance Contracts*, credit-based guarantees are treated as insurance contracts. The Group considers asset-value guarantees to be non-financial liabilities and accordingly these are also treated as insurance contracts. As described on page 158, the Directors consider the likelihood of crystallisation in assessing whether provision is required for any contingent liabilities.

The Group's contingent liabilities relating to financing arrangements are spread over many years and relate to a number of customers and a broad product portfolio, and are reported on a discounted basis.

Revisions to Adopted IFRS in 2017

There were no changes to accounting standards that had a material impact on the 2017 Consolidated Financial Statements.

Revisions to IFRS not applicable in 2017

Standards and interpretations issued by the IASB are only applicable if endorsed by the EU.

IFRS 9 *Financial Instruments*

IFRS 9 (effective for the year beginning 1 January 2018) relates to the accounting for financial instruments and covers: classification and measurement; impairment; and hedge accounting. Except for hedge accounting, retrospective application is required with any adjustment being made to reserves on 1 January 2018. The Group is not required to restate 2017 comparative information and is analysing the impact of adoption on its Financial Statements. This is not expected to be material.

- The Group can sell its trade receivables from certain customers before their due date. The trade receivables of these customers that are not sold will be classified and disclosed as fair value through other comprehensive income from 2018. This will not have a significant impact on the income statement.
- The Group will adopt the simplified approach to provide for losses on receivables and contract assets resulting from transactions within the scope of IFRS 15. The Group has performed a preliminary assessment of the adoption of the standard on the basis of average default risk of customers and will continue to analyse the impact during 2018. We do not anticipate that this will have a significant impact on the income statement.
- The Group has determined that all existing effective hedging relationship will continue to qualify for hedge accounting under IFRS 9. We will continue not to hedge account for forecast foreign exchange transactions. This will not have an impact on the Financial Statements.

1 Accounting policies continued

IFRS 15 Revenue from Contracts with Customers

IFRS 15 provides a single, principles based five-step model to be applied to all sales contracts. It is based on the transfer of control of goods and services to customers and replaces the separate models for goods, services and construction contracts currently included in IAS 11 *Construction Contracts* and IAS 18 *Revenue*. There are three broad implications:

- linked accounting will cease to exist so all OE sales will be treated on the same basis;
- OE engine cash deficits will no longer be capitalised and recorded as contractual aftermarket rights, they will instead be recognised on delivery; and
- revenue and profits for aftermarket services will be recognised on an activity basis as costs are incurred.

The Group will adopt IFRS 15 on 1 January 2018 using the 'full' retrospective approach. The Group has undertaken significant analysis on the impact of IFRS 15 and the most significant accounting judgements, estimates and policies are set out below. Work will continue during 2018 to review and refine policies and procedures required to implement IFRS 15. As a result it is possible that there may be some changes to the impact reported.

Key areas of judgement:

Determining the timing of satisfaction of performance obligations:

- Where the performance obligation is the supply of goods (principally OE and spare parts) which is satisfied at the point in time that those goods are transferred to the customer, the Group will recognise revenue at that point in time.
- The Group generates a significant proportion of its revenue and profit from aftermarket arrangements arising from the use of the installed OE. These aftermarket contracts, such as TotalCare and CorporateCare agreements in Civil Aerospace, cover a range of services and generally have contractual terms covering more than one year. Under these contracts, the Group's primary obligation is to maintain customers' equipment in an operational condition and this is achieved by undertaking various activities, such as repair, overhaul and engine monitoring over the period of the contract. Revenue on these contracts is recognised over the period of the contract and the measure of performance is a matter of judgement. In general, the Directors consider that the stage of performance of the contract is best measured by using the actual costs incurred to date compared to the estimated costs to complete the performance obligations.
- The assessment of stage of completion is generally measured for each contract. However, in certain cases, such as for CorporateCare agreements where there are many contracts covering aftermarket services, each for a small number of engines, the Group will apply the practical expedient offered by IFRS 15 to account for a portfolio of contracts together as it expects that the effects on the Financial Statements would not differ materially from applying the standard to the individual contracts in the portfolio.

The Group has paid participation fees to airframe manufacturers, its customers for OE on certain programmes. Amounts paid are initially treated as contract assets and subsequently charged as a reduction to the OE revenue when it is transferred to the customer. The number of units over which the asset will be charged is a matter of judgement as the orders will grow over the course of the programme.

In assessing the accounting for the participation fee payments we make to our OE customers, we have also assessed the accounting for up-front payments we sometimes receive from the Group's suppliers under RRSAs to allow them to participate in an engine programme. We have concluded that, consistent with changes to how we will account for participation fees noted above, these receipts should be deferred and recognised against cost of sales over the period of supply. This will also require judgement as to the number of units over which the receipts will be allocated.

The Group has elected to use the practical expedient to expense as incurred any incremental costs of obtaining or fulfilling a contract if the amortisation period of an asset created would have been one year or less.

Key sources of estimation uncertainty:

Assessment of long-term contractual arrangements.

- The estimated revenue and costs under such agreements are inherently imprecise and significant estimates are required to take into account uncertainties relating to: (i) the forecast utilisation of the engines by the operator and related pricing; (ii) the frequency of engine overhauls where the principal variables are the operating parameters of the engine and operational lives of components; and (iii) the forecast costs to maintain the engines in accordance with the contractual requirements where the cost of each overhaul is dependent on the required work-scope and the cost of parts and labour at the time.
- An allowance is made against the risk of non-recovery of resulting contract balances from reduced utilisation e.g. engine flying hours, based on historical forecasting experience, the risk of aircraft being parked by the customer and the customer's creditworthiness.
- A significant amount of revenue and cost is denominated in currencies other than that of the relevant Group undertaking. These are translated at estimated long-term exchange rates.

Significant accounting policies:

Revenue recognition comprises sales to outside customers after discounts and amounts payable to customers and excludes value added taxes. The Group has elected to use the practical expedient not to adjust revenue for the effect of financing components where the expectation is that the period between the transfer of goods and services to customers and the receipt of payment is less than a year.

Sales of services are recognised by reference to the progress towards complete satisfaction of the performance obligation provided the outcome of contracts can be assessed with reasonable certainty. Full provision is made for any estimated losses to completion of contracts, having regard to the overall substance of the arrangements.

1 Accounting policies continued

TotalCare and similar long-term aftermarket service arrangements are accounted for on a stage of completion basis. A contract liability will be created where payment is received ahead of the costs incurred to meet performance obligations. In making the assessment of future revenue, costs and the level of profit recognised, the Group takes account of the inherent uncertainties and the risk of non-recovery of any resulting contract balances. To the extent that actual revenue and costs differ from forecast or that forecasts change, the cumulative impact is recognised in the period. When accounting for a portfolio of long-term service arrangements, such as CorporateCare agreements, the Group uses estimates and assumptions that reflect the size and composition of the portfolio. The new standard has no impact on the timing of the reported cash flows.

The comparative 2017 results to be included in the 2018 Financial Statements will be restated. Certain tables from note 2, have been prepared on the IFRS 15 basis set out above and are shown in note 27. Overall, the adoption of IFRS 15 is expected to result in a reduction in 2017 underlying revenue and operating profit of £1,408m and £854m respectively and a reduction of net assets of £5.2bn at 31 December 2017.

IFRS 16 Leases

IFRS 16 (effective for the year beginning 1 January 2019) will require all leases to be recognised on the balance sheet. Currently, IAS 17 *Leases* only requires leases categorised as finance leases to be recognised on the balance sheet.

The Group is progressing well in its analysis of how IFRS 16 should be implemented and is developing the data-set, systems and processes that will be required. The most significant leases, by value, relate to property and aircraft engines. The Group expects to apply the standard retrospectively with the cumulative effect of initial application recognised on 1 January 2019. Under this approach the Group will not restate comparative periods.

In broad terms the impact of the standard will be to:

- recognise an additional lease liability equivalent to the present value of the lease commitments at the date of transition. Further work is required to validate the contracts which will represent leases under IFRS 16, including ongoing consideration of some supply chain contracts. The Group is also considering whether there are any re-assessments of lease term required, and the discount rate to be applied. Under the expected transition option, payments will be discounted using incremental borrowing rates at 1 January 2019. The Group holds some leases in non-functional currencies where the value of the lease liability will be dependent on spot exchange rates on transition; and
- recognise a right-of-use asset measured either: as if the standard had applied since commencement of the lease; or at an amount equal to the lease liability on transition.

The Group does not consider that any other standards, amendments or interpretations issued by the IASB, but not yet applicable will have a significant impact on the Financial Statements.

2 Segmental analysis

The analysis by business segment is presented in accordance with IFRS 8 *Operating Segments*, on the basis of those segments whose operating results are regularly reviewed by the Board (the Chief Operating Decision Maker as defined by IFRS 8), as follows:

Civil Aerospace	– development, manufacture, marketing and sales of commercial aero engines and aftermarket services.
Defence Aerospace	– development, manufacture, marketing and sales of military aero engines and aftermarket services.
Power Systems	– development, manufacture, marketing and sales of reciprocating engines and power systems.
Marine	– development, manufacture, marketing and sales of marine-power propulsion systems and aftermarket services.
Nuclear	– development, manufacture, marketing and sales of nuclear systems for civil power generation and naval propulsion systems.

The operating results are reviewed by the Board and are prepared on an underlying basis, which the Board considers reflects better the economic substance of the Group's trading during the year and provides financial measures that, together with the results prepared in accordance with Adopted IFRS, allow better analysis of the factors affecting the year's results compared to the prior year. This approach has been applied consistently. The principles adopted to determine underlying results are:

Underlying revenue and cost of sales

Where revenue and costs are denominated in a currency other than the functional currency of the Group undertaking and the Group hedges the net exposure, these reflect the achieved exchange rates arising on derivative contracts settled to cover the net exposure. This reflects the economic hedging that the Group undertakes. These achieved exchange rates are applied to all relevant revenue and costs, including those for which there is a natural offsetting position, rather than translating the offsetting transactions at spot rates. The underlying profits would be the same under both approaches, but the Board considers that the approach taken provides a better indication of trends over time.

Underlying profit before financing

In addition to the impact of exchange rates on revenue and costs above, adjustments have been made to exclude one-off past service costs or credits on post-retirement schemes, exceptional restructuring costs (associated with the substantial closure or exit of a site, facility or line of business or other major transformation activities), the effect of acquisition accounting (including in 2017, the gains arising on the acquisition of ITP Aero) – so that all segments are measured on a consistent basis, the effect of business disposals, the impairment of goodwill and similar items, and in 2016 financial penalties from agreements with investigating bodies.

2 Segmental analysis continued

Underlying profit before taxation

In addition to those adjustments in underlying profit before financing:

- includes amounts realised from settled derivative contracts and revaluation of relevant assets and liabilities to exchange rates forecast to be achieved from future settlement of derivative contracts; and
- excludes unrealised amounts arising from revaluations required by IAS 39 *Financial Instruments: Recognition and Measurement*, changes in value of financial RRSA contracts arising from changes in forecast payments and the net impact of financing costs related to post-retirement scheme benefits.

Taxation

The tax effect of the adjustments above are excluded from the underlying tax charge. In addition, changes in the amount of recoverable advance corporation tax recognised and the impact of changes in tax rates are also excluded.

The tables below and overleaf set out the results of the reportable segments on the basis described above and a reconciliation of these underlying results to those reported in the consolidated income statement.

	Civil[1] Aerospace £m	Defence Aerospace £m	Power Systems £m	Marine £m	Nuclear £m	Inter-segment £m	Total reportable segments £m
Year ended 31 December 2017							
Underlying revenue from sale of original equipment	3,775	928	1,828	534	377	(27)	7,415
Underlying revenue from aftermarket services	4,158	1,264	897	483	430	(37)	7,195
Total underlying revenue at 2016 exchange rates	7,933	2,192	2,725	1,017	807	(64)	14,610
Translation to 2017 exchange rates	90	83	198	60	11	(6)	436
Total underlying revenue at 2017 exchange rates	8,023	2,275	2,923	1,077	818	(70)	15,046
Gross profit	1,157	555	786	214	130	–	2,842
Commercial and administrative costs	(370)	(126)	(310)	(193)	(71)	–	(1,070)
Research and development costs	(403)	(77)	(166)	(44)	(22)	–	(712)
Share of results of joint ventures and associates	109	7	(3)	–	–	–	113
Underlying operating profit/(loss) at 2016 exchange rates	493	359	307	(23)	37	–	1,173
Translation to 2017 exchange rates	27	15	23	(2)	1	–	64
Underlying operating profit/(loss) at 2017 exchange rates	520	374	330	(25)	38	–	1,237
Segment assets	15,335	1,741	3,772	1,270	395	(1,360)	21,153
Investments in joint ventures and associates	670	1	15	1	1	–	688
Segment liabilities	(13,160)	(1,837)	(1,256)	(761)	(426)	1,360	(16,080)
Net assets/(liabilities)	2,845	(95)	2,531	510	(30)	–	5,761
Investment in intangible assets, property, plant and equipment and joint ventures and associates	1,455	120	118	56	40	–	1,789
Depreciation, amortisation and impairment	525	60	231	38	24	–	878
Year ended 31 December 2016							
Underlying revenue from sale of original equipment	3,357	890	1,810	631	354	(36)	7,006
Underlying revenue from aftermarket services	3,710	1,319	845	483	423	(40)	6,740
Total underlying revenue	7,067	2,209	2,655	1,114	777	(76)	13,746
Gross profit	1,185	564	702	236	121	–	2,808
Commercial and administrative costs	(353)	(124)	(335)	(222)	(70)	–	(1,104)
Research and development costs	(568)	(71)	(177)	(41)	(6)	–	(863)
Share of results of joint ventures and associates	103	15	1	–	–	–	119
Underlying operating profit/(loss)	367	384	191	(27)	45	–	960
Segment assets	13,030	1,755	3,828	1,518	351	(1,223)	19,259
Investments in joint ventures and associates	826	4	9	2	1	–	842
Segment liabilities	(14,510)	(1,996)	(1,151)	(903)	(435)	1,223	(17,772)
Net (liabilities)/assets	(654)	(237)	2,686	617	(83)	–	2,329
Investment in intangible assets, property, plant and equipment and joint ventures and associates	1,215	112	123	37	19	–	1,506
Depreciation, amortisation and impairment	491	67	207	239	39	–	1,043

[1] Included within the results for Civil Aerospace in 2017 is a charge of **£227m** (2016: £98m) related to in-service engine issues for the Trent 1000 and Trent 900.

2 Segmental analysis continued

Reconciliation to reported results

	Total reportable segments £m	Other businesses [1] and corporate £m	Total underlying £m	Underlying adjustments and foreign exchange £m	Group at actual exchange rates £m
Year ended 31 December 2017					
Revenue from sale of original equipment	7,415	21	7,436	654	8,090
Revenue from aftermarket services	7,195	20	7,215	1,002	8,217
Total revenue at 2016 exchange rates	14,610	41	14,651	1,656	16,307
Translation to 2017 exchange rates	436	3	439	(439)	–
Total revenue at 2017 exchange rates	15,046	44	15,090	1,217	16,307
Gross profit	2,842	4	2,846	327	3,173
Commercial and administrative costs	(1,070)	(54)	(1,124)	(98)	(1,222)
Research and development costs	(712)	1	(711)	(84)	(795)
Share of results of joint ventures and associates	113	(11)	102	29	131
Operating profit/(loss) at 2016 exchange rates	1,173	(60)	1,113	174	1,287
Translation to 2017 exchange rates	64	(2)	62	(62)	–
Operating profit/(loss) at 2017 exchange rates	1,237	(62)	1,175	112	1,287
Gains arising on the acquisition of ITP Aero	–	–	–	798	798
Profit/(loss) before financing and taxation	1,237	(62)	1,175	910	2,085
Net financing		(104)	(104)	2,916	2,812
Profit/(loss) before taxation		(166)	1,071	3,826	4,897
Taxation		(328)	(328)	(361)	(689)
Profit for the year			743	3,465	4,208
Attributable to:					
Ordinary shareholders			742	3,465	4,207
Non-controlling interests			1	–	1
Year ended 31 December 2016					
Revenue from sale of original equipment	7,006	21	7,027	561	7,588
Revenue from aftermarket services	6,740	16	6,756	611	7,367
Total revenue	13,746	37	13,783	1,172	14,955
Gross profit	2,808	10	2,818	230	3,048
Commercial and administrative costs	(1,104)	(54)	(1,158)	(1,045)	(2,203)
Research and development costs	(863)	1	(862)	(56)	(918)
Share of results of joint ventures and associates	119	(2)	117	–	117
Operating profit/(loss)	960	(45)	915	(871)	44
Loss on disposal of businesses	–	–	–	(3)	(3)
Profit/(loss) before financing and taxation	960	(45)	915	(874)	41
Net financing		(102)	(102)	(4,575)	(4,677)
Profit/(loss) before taxation		(147)	813	(5,449)	(4,636)
Taxation		(261)	(261)	865	604
Profit/(loss) for the year			552	(4,584)	(4,032)
Attributable to:					
Ordinary shareholders			552	(4,584)	(4,032)
Non-controlling interests			–	–	–

[1] Other businesses comprise former Energy businesses not included in the disposal to Siemens in 2014.

2 Segmental analysis continued

Underlying adjustments

	2017 Revenue £m	2017 Profit before financing £m	2017 Net financing £m	2017 Taxation £m	2016 Revenue £m	2016 Profit before financing £m	2016 Net financing £m	2016 Taxation £m
Underlying performance	15,090	1,175	(104)	(328)	13,783	915	(102)	(261)
Revenue recognised at exchange rate on date of transaction	1,217	–	–	–	1,172	–	–	–
Realised losses/(gains) on settled derivative contracts [1]	–	475	173	(111)	–	426	162	(107)
Net unrealised fair value changes to derivative contracts [2]	–	24	2,648	(463)	–	–	(4,420)	792
Effect of currency on contract accounting	–	(124)	–	21	–	77	–	(14)
Revaluation of trading assets and liabilities	–	(6)	84	(12)	–	67	(313)	56
Financial RRSAs – foreign exchange differences and changes in forecast payments	–	–	11	(3)	–	–	(8)	(1)
Effect of acquisition accounting [3]	–	(129)	–	35	–	(115)	–	35
Impairment of goodwill	–	–	–	–	–	(219)	–	–
Impairment of assets	–	(12)	–	–	–	–	–	–
Pension restructuring [4]	–	–	–	–	–	(306)	–	107
Net post-retirement scheme financing	–	–	1	(1)	–	–	3	(2)
Disposal of businesses	–	–	–	–	–	(3)	–	–
Exceptional restructuring	–	(104)	–	31	–	(129)	–	34
Financial penalties from agreements with investigating bodies	–	–	–	–	–	(671)	–	–
Gains arising on the acquisition of ITP Aero	–	798	–	–	–	–	–	–
Consolidation of previously non-consolidated subsidiary	–	(12)	–	–	–	–	–	–
Other	–	–	(1)	4	–	(1)	1	(5)
Recognition of advance corporation tax	–	–	–	163	–	–	–	–
Reduction in corporate tax rates [5]	–	–	–	(25)	–	–	–	(30)
Total underlying adjustments	1,217	910	2,916	(361)	1,172	(874)	(4,575)	865
Reported per consolidated income statement	16,307	2,085	2,812	(689)	14,955	41	(4,677)	604

1 Realised losses/(gains) on settled derivative contracts include adjustments to reflect the losses/(gains) in the same year as the related trading cash flows.
2 Unrealised fair value changes to derivative contracts included in profit before financing: (i) include those of equity accounted joint ventures; and (ii) exclude those for which the related trading contracts have been cancelled when the fair value changes are recognised immediately in underlying profit.
3 The adjustment eliminates charges recognised as a result of recognising assets in acquired businesses at fair value.
4 In the UK, tax is provided on pension surpluses at a rate of 35%, which is the relevant rate if the surpluses were to be returned to the Group.
5 The 2017 reduction in corporate tax rates relates to the reduction in the Federal tax rate in the US. The 2016 comparative relates to the reduction in the UK corporate tax rate.

The reconciliation of underlying earnings per ordinary share is shown in note 6.

Reconciliation to the balance sheet

	2017 £m	2016 £m
Reportable segment assets	21,153	19,259
Investments in joint ventures and associates	688	844
Other businesses and corporate [1]	2,565	49
Cash and cash equivalents and short-term investments	2,956	2,774
Fair value of swaps hedging fixed rate borrowings	227	358
Income tax assets	288	908
Post-retirement scheme surpluses	2,125	1,346
Total assets	30,002	25,538
Reportable segment liabilities	(16,080)	(17,772)
Other businesses and corporate [1]	(1,524)	(183)
Borrowings	(3,488)	(3,357)
Income tax liabilities	(1,353)	(987)
Post-retirement scheme deficits	(1,387)	(1,375)
Total liabilities	(23,832)	(23,674)
Net assets	6,170	1,864

1 Includes ITP Aero.

2 Segmental analysis continued

Geographical segments

The Group's revenue by destination is as follows:

	2017 £m	2016 £m
United Kingdom	1,881	1,821
Germany	973	850
Switzerland	733	745
France	388	294
Spain	329	289
Norway	218	279
Italy	301	232
Russia	63	75
Rest of Europe	736	700
Europe	5,622	5,285
United States	4,419	4,176
Canada	324	341
North America	4,743	4,517
South America	173	314
Saudi Arabia	356	486
Rest of Middle East	885	570
Middle East	1,241	1,056
China	1,952	1,417
Singapore	565	518
Japan	294	333
South Korea	248	251
Malaysia	126	117
India	110	99
Rest of Asia	629	508
Asia	3,924	3,243
Africa	281	290
Australasia	230	188
Other	93	62
	16,307	14,955

No single customer represented 10% or more of the Group's revenue.

The carrying amounts of the Group's non-current assets including investments but excluding other financial instruments, deferred tax assets and post-employment benefit surpluses, by the geographical area in which the assets are located, are as follows:

	2017 £m	2016 £m
United Kingdom	5,367	4,643
Germany	2,872	2,714
United States	1,258	1,046
Nordic countries	502	512
Other	2,402	1,161
	12,401	10,076

On 17 January 2018, the Group announced a simplification from five to three businesses and a review of strategic options for our commercial marine operation. Until certain elements of the simplification are sufficiently advanced (including the strategic review of commercial marine), it is not possible to determine reliably the full financial impact.

3 Research and development

	2017 £m	2016 £m
Expenditure in the year	(1,035)	(937)
Capitalised as intangible assets	342	99
Amortisation of capitalised costs	(150)	(147)
Impairment of capitalised costs	–	(2)
Net research and development cost	(843)	(987)
Entry fees received	64	73
Entry fees deferred in respect of charges in future years	(44)	(40)
Recognition of previously deferred entry fees	28	36
Net cost recognised in the income statement	(795)	(918)
Underlying adjustments relating to effects of acquisition accounting and foreign exchange	58	56
Net underlying cost recognised in the income statement	(737)	(862)
Translation to 2016 exchange rates	26	–
Net underlying cost at 2016 exchange rates	(711)	(862)

4 Net financing

		2017		2016	
	Notes	Per consolidated income statement £m	*Underlying financing* [2] £m	Per consolidated income statement £m	*Underlying financing* [2] £m
Financing income					
Interest receivable		11	*11*	14	*14*
Net fair value gains on foreign currency contracts [1]	17	2,611	–	1	–
Financial RRSAs – foreign exchange differences and changes in forecast payments		17	–	23	–
Net fair value gains on commodity contracts [1]	17	37	–	16	–
Financing on post-retirement scheme surpluses	19	39	–	42	–
Net foreign exchange gains		258	–	–	–
		2,973	*11*	96	*14*
Financing costs					
Interest payable		(67)	*(64)*	(77)	*(77)*
Net fair value losses on foreign currency contracts [1]	17	–	–	(4,437)	–
Financial RRSAs – foreign exchange differences and changes in forecast payments	17	(6)	–	(31)	–
Financial charge relating to financial RRSAs	17	(5)	*(5)*	(6)	*(6)*
Financing on post-retirement scheme deficits	19	(38)	–	(39)	–
Net foreign exchange losses		–	–	(145)	–
Other financing charges		(45)	*(46)*	(38)	*(33)*
		(161)	*(115)*	(4,773)	*(116)*
Net financing		2,812	*(104)*	(4,677)	*(102)*
Analysed as:					
Net interest payable		(56)	*(53)*	(63)	*(63)*
Net fair value gains/(losses) on derivative contracts		2,648	–	(4,420)	–
Net post-retirement scheme financing		1	–	3	–
Net other financing		219	*(51)*	(197)	*(39)*
Net financing		2,812	*(104)*	(4,677)	*(102)*
[1] Net gain/(loss) on fair value items through profit or loss		2,648	–	(4,420)	–

[2] See note 2.

5 Taxation

	UK		Overseas		Total	
	2017 £m	2016 £m	2017 £m	2016 £m	2017 £m	2016 £m
Current tax						
Current tax charge for the year	33	12	244	187	277	199
Adjustments in respect of prior years	–	(8)	(10)	4	(10)	(4)
	33	4	234	191	267	195
Deferred tax						
Deferred tax charge/(credit) for the year	543	(804)	6	(44)	549	(848)
Adjustments in respect of prior years	(2)	(5)	13	24	11	19
Recognition of advance corporation tax	(163)	–	–	–	(163)	–
Deferred tax charge resulting from reduction in tax rates	–	30	25	–	25	30
	378	(779)	44	(20)	422	(799)
Recognised in the income statement	411	(775)	278	171	689	(604)

Other tax (charges)/credits

	OCI				Equity	
	Items that will not be reclassified		Items that may be reclassified			
	2017 £m	2016 £m	2017 £m	2016 £m	2017 £m	2016 £m
Deferred tax:						
Movement in post-retirement schemes	(307)	(179)				
Share-based payments – direct to equity					3	(2)
Net investment hedge			1	4		
	(307)	(179)	1	4	3	(2)

Tax reconciliation

	2017 £m	2016 £m
Profit/(loss) before taxation	4,897	(4,636)
Less share of results of joint ventures and associates (note 11)	(131)	(117)
Profit/(loss) before taxation excluding joint ventures and associates	4,766	(4,753)
Nominal tax charge/(credit) at UK corporation tax rate **19.25%** (2016: 20%)	917	(951)
UK tax rate differential [1]	(68)	41
Overseas rate differences [2]	103	25
Impairment of goodwill	–	44
Financial penalties from agreements with investigating bodies	–	153
Gains arising on the acquisition of ITP Aero	(154)	–
Other permanent differences	4	11
Benefit to deferred tax from previously unrecognised tax losses and temporary differences	–	(2)
Tax losses in year not recognised in deferred tax	24	30
Adjustments in respect of prior years	1	15
Recognition of advance corporation tax	(163)	–
Reduction in closing deferred taxes resulting from decrease in tax rates	25	30
	689	(604)
Underlying items (note 2)	328	261
Non-underlying items	361	(865)
	689	(604)

1 The UK tax rate differential arises on the difference between the appropriate deferred tax rate and the UK statutory tax rate.
2 Overseas rate differences mainly relate to tax on profits in countries, such as the US and Germany, which have higher tax rates than the UK.

5 Taxation continued

Deferred taxation assets and liabilities

	2017 £m	2016 £m
At 1 January	**100**	(521)
Amount (charged)/credited to income statement	**(422)**	799
Amount charged to other comprehensive income	**(306)**	(175)
Amount credited/(charged) to equity	**3**	(2)
On acquisition of business	**(238)**	–
Exchange differences	**(10)**	(1)
At 31 December	**(873)**	100
Deferred tax assets	**271**	876
Deferred tax liabilities	**(1,144)**	(776)
	(873)	100

The analysis of the deferred tax position is as follows:

	At 1 January 2017 £m	Recognised in income statement £m	Recognised in OCI £m	Recognised in equity £m	On acquisition of business £m	Exchange differences £m	At 31 December 2017 £m
Intangible assets	**(389)**	20	–	–	(277)	(46)	**(692)**
Property, plant and equipment	**(191)**	93	–	–	(29)	(18)	**(145)**
Other temporary differences	**28**	(62)	1	3	(97)	25	**(102)**
Amounts recoverable on contracts	**(512)**	20	–	–	–	–	**(492)**
Pensions and other post-retirement scheme benefits	**(131)**	(69)	(307)	–	–	25	**(482)**
Foreign exchange and commodity financial assets and liabilities	**926**	(545)	–	–	–	–	**381**
Losses	**339**	(50)	–	–	5	4	**298**
R&D credit	**30**	8	–	–	160	–	**198**
Advance corporation tax	**–**	163	–	–	–	–	**163**
	100	(422)	(306)	3	(238)	(10)	**(873)**

	At 1 January 2016 £m	Recognised in income statement £m	Recognised in OCI £m	Recognised in equity £m	Exchange differences £m	At 31 December 2016 £m
Intangible assets	(392)	11	–	–	(8)	(389)
Property, plant and equipment	(190)	14	–	–	(15)	(191)
Other temporary differences	21	15	4	–	(12)	28
Amounts recoverable on contracts	(539)	27	–	–	–	(512)
Pensions and other post-retirement scheme benefits	(90)	103	(179)	–	35	(131)
Foreign exchange and commodity financial assets and liabilities	306	620	–	–	–	926
Losses	343	(1)	–	(2)	(1)	339
R&D credit	20	10	–	–	–	30
	(521)	799	(175)	(2)	(1)	100

Unrecognised deferred tax assets

	2017 £m	2016 £m
Advance corporation tax	**19**	182
Losses and other unrecognised deferred tax assets [1]	**180**	71
Deferred tax not recognised on unused tax losses and other items on the basis that future economic benefit is uncertain	**199**	253

[1] The losses and other unrecognised deferred tax assets include £77m on acquisition of ITP Aero.

5 Taxation continued

Deferred taxation assets and liabilities

Deferred tax assets include **£285m** (2016: £326m) relating to tax losses in the UK and **£163m** (2016: nil) relating to advance corporation tax.

In both cases, a recoverability assessment has been undertaken, taking account of deferred tax liabilities against which the reversal of the deferred tax asset can be offset and using latest UK forecasts to assess the level of future taxable profits. The assessment takes into account new tax laws that are effective from 1 April 2017 (restricting the offset of tax losses), and the fact that neither asset time expires.

The forecasts show the UK business, which is mainly Civil Aerospace and Defence Aerospace, continues to generate sufficient future taxable profits to support the continued recognition of the deferred tax asset relating to tax losses even though the new tax laws extend the period over which the losses are expected to be used. This is aligned to the business outlook, in particular Civil Aerospace with its growth in original equipment revenue from large engines and engine unit cost improvements.

Prior to the new tax laws, advance corporation tax would not be utilised until after all the UK tax losses had been used. One of the consequences of the change in tax laws is that UK tax payments will be accelerated. Advance corporation tax can be offset against such payments. This is reflected in the forecasts that show it now being used over a similar period to the losses. As a result the advance corporation tax has been recognised as a deferred tax asset in 2017. The resulting credit to the income statement has been excluded from underlying profit.

The US Tax Cuts and Jobs Act was enacted on 22 December 2017. This reduces the Federal tax rate in the US from 35% to 21% with effect from 1 January 2018. As the reduction has been enacted prior to the year end, the closing deferred tax assets and liabilities of US companies within the Group have been calculated at this rate. The resulting charges or credits have been recognised in the income statement except to the extent that they relate to items previously charged or credited to OCI or equity. Accordingly in 2017, £25m has been charged to the income statement and £45m has been charged to OCI.

The Budget 2016 announced that the UK tax rate will reduce to 19% with effect from 1 April 2017 and 17% with effect from 1 April 2020. The rate reduction to 17% was substantively enacted on 6 September 2016. The deferred tax assets and liabilities of UK companies within the Group have therefore been calculated at 17%.

The temporary differences associated with investments in subsidiaries, joint ventures and associates, for which a deferred tax liability has not been recognised, aggregate to **£188m** (2016: £276m). No deferred tax liability has been recognised on the potential withholding tax due on the remittance of undistributed profits as the Group is able to control the timing of such remittances and it is probable that consent will not be given in the foreseeable future.

6 Earnings per ordinary share

Basic earnings per ordinary share (EPS) are calculated by dividing the profit attributable to ordinary shareholders by the weighted average number of ordinary shares in issue during the year, excluding ordinary shares held under trust, which have been treated as if they had been cancelled.

Diluted EPS are calculated by adjusting the weighted average number of ordinary shares in issue during the year for the bonus element of share options.

	2017			2016		
	Basic	**Potentially dilutive share options**	**Diluted**	Basic	Potentially dilutive share options [1]	Diluted
Profit/(loss) attributable to ordinary shareholders (£m)	**4,207**		**4,207**	(4,032)		(4,032)
Weighted average number of ordinary shares (millions)	**1,834**	**6**	**1,840**	1,832	–	1,832
EPS (pence)	**229.40**	**(0.76)**	**228.64**	(220.08)	–	(220.08)

[1] As there is a loss, the effect of potentially dilutive ordinary shares is anti-dilutive.

The reconciliation between underlying EPS and basic EPS is as follows:

	2017		2016	
	Pence	**£m**	Pence	£m
Underlying EPS/Underlying operating profit attributable to ordinary shareholders	**40.46**	**742**	30.13	552
Total underlying adjustments to profit before tax (note 2)	**208.62**	**3,826**	(297.43)	(5,449)
Related tax effects	**(19.68)**	**(361)**	47.22	865
EPS/Profit/(loss) attributable to ordinary shareholders	**229.40**	**4,207**	(220.08)	(4,032)
Diluted underlying EPS	**40.33**		30.08	

7 Employee information

	2017	2016
Average number of employees		
United Kingdom	**22,500**	22,300
Germany	**10,600**	10,700
United States	**6,200**	6,300
Nordics	**3,000**	3,400
Canada	**1,000**	1,000
Rest of world	**6,700**	6,200
	50,000	49,900
Civil Aerospace	**24,600**	23,800
Defence Aerospace	**6,100**	6,000
Power Systems	**10,100**	10,300
Marine	**4,600**	5,300
Nuclear	**4,400**	4,300
Other businesses and corporate [1]	**200**	200
	50,000	49,900

	£m	£m
Group employment costs [2]		
Wages, salaries and benefits	**2,982**	2,788
Social security costs	**413**	376
Share-based payments (note 21)	**34**	35
Pensions and other post-retirement scheme benefits (note 19)	**372**	623
	3,801	3,822

[1] Other businesses and corporate includes the Energy businesses not sold to Siemens in 2014 and corporate employees who do not provide a shared service to the segments. Where corporate functions provide such a service, employees have been allocated to the segments on an appropriate basis.
[2] Remuneration of key management personnel is shown in note 24.

8 Auditors' remuneration

Fees payable to the Company's auditors and its associates were as follows:

	2017 £m	2016 £m
Fees payable to the Company's auditors for the audit of the Company's annual Financial Statements [1]	**0.3**	0.3
Fees payable to the Company's auditors and its associates for the audit of the Company's subsidiaries pursuant to legislation [2]	**7.3**	6.5
Total fees payable for audit services	**7.6**	6.8
Fees payable to the Company's auditors and its associates for other services:		
Audit related assurance services [3]	**0.7**	0.6
Taxation compliance services	**0.1**	0.5
All other services	**1.0**	0.1
	9.4	8.0
Fees payable in respect of the Group's pension schemes:		
Audit	**0.2**	0.3

[1] The level of fees payable to the Company's auditors for the audit of the Company's annual Financial Statements reflects the fact that limited incremental work is required in respect of the audit of these Financial Statements. Rolls-Royce plc, a subsidiary of the Company, is also required to prepare Consolidated Financial Statements and the fees payable to the Company's auditors for the audit of those Financial Statements, including the audit of the sub-consolidation, is included in the audit of the Company's subsidiaries pursuant to legislation.
[2] Audit fees for overseas entities are reported at the average exchange rate for the year.
[3] This includes **£0.3m** (2016: £0.3m) for the review of the half-year report.

9 Intangible assets

	Goodwill £m	Certification costs and participation fees £m	Development expenditure £m	Contractual aftermarket rights £m	Customer relationships £m	Software £m	Other £m	Total £m
Cost								
At 1 January 2016	1,589	1,145	1,730	799	456	616	543	6,878
Exchange differences	284	26	116	–	84	16	66	592
Additions	–	154	100	208	–	116	53	631
Acquisition of business	1	–	–	–	–	–	1	2
Disposals	–	–	(2)	–	–	(6)	–	(8)
At 1 January 2017	**1,874**	**1,325**	**1,944**	**1,007**	**540**	**742**	**663**	**8,095**
Exchange differences	(5)	8	16	–	(3)	(3)	8	21
Reclassifications	–	–	(9)	–	–	–	9	–
Additions	–	160	342	286	–	135	50	973
Acquisition of business	–	128	202	70	966	7	44	1,417
Disposals	–	–	–	–	–	(13)	–	(13)
At 31 December 2017	**1,869**	**1,621**	**2,495**	**1,363**	**1,503**	**868**	**774**	**10,493**
Accumulated amortisation								
At 1 January 2016	86	373	691	394	139	325	225	2,233
Exchange differences	32	3	48	–	28	8	35	154
Charge for the year [1]	–	64	147	39	42	81	33	406
Impairment	219	–	2	–	–	–	1	222
At 1 January 2017	**337**	**440**	**888**	**433**	**209**	**414**	**294**	**3,015**
Exchange differences	(13)	1	8	–	(4)	(1)	–	(9)
Charge for the year [1]	–	63	149	57	51	81	29	430
Disposals	–	–	–	–	–	(6)	–	(6)
At 31 December 2017	**324**	**504**	**1,045**	**490**	**256**	**488**	**323**	**3,430**
Net book value								
At 31 December 2017	**1,545**	**1,117**	**1,450**	**873**	**1,247**	**380**	**451**	**7,063**
At 31 December 2016	1,537	885	1,056	574	331	328	369	5,080
At 1 January 2016	1,503	772	1,039	405	317	291	318	4,645

[1] Charged to cost of sales except development costs, which are charged to research and development costs.

Goodwill

In accordance with the requirements of IAS 36 *Impairment of Assets*, goodwill is allocated to the Group's cash-generating units, or groups of cash-generating units, that are expected to benefit from the synergies of the business combination that gave rise to the goodwill as follows:

Cash-generating unit (CGU) or group of CGUs

	Primary reporting segment	2017 £m	2016 £m
Rolls-Royce Power Systems AG	Power Systems	**868**	871
Marine – arising from the acquisitions of Vinters Limited, Scandinavian Electric Holding AS and ODIM ASA	Marine	**410**	401
Rolls-Royce Deutschland Ltd & Co KG	Civil Aerospace	**244**	236
Other	Various	**23**	29
		1,545	1,537

9 Intangible assets continued

Goodwill has been tested for impairment during 2017 on the following basis:

- The carrying values of goodwill have been assessed by reference to value in use. These have been estimated using cash flows from the most recent forecasts prepared by management, which are consistent with past experience and external sources of information on market conditions. These forecasts cover the next five years. Growth rates for the period not covered by the forecasts are based on a range of growth rates that reflect the products, industries and countries in which the relevant CGU or group of CGUs operate.
- The key assumptions for the impairment tests are the discount rate and, in the cash flow projections, the programme assumptions, the growth rates and the impact of foreign exchange rates on the relationship between selling prices and costs. Impairment tests are performed using prevailing exchange rates.

The principal value in use assumptions for goodwill balances considered to be individually significant are:

Marine
- Trading assumptions (e.g. volume of equipment deliveries, capture of aftermarket and cost escalation) are based on current and known future programmes, estimates of customers' fleet requirements and long-term economic forecasts, in particular the cyclical recovery of the commercial marine market.
- Cash flows beyond the five-year forecasts are assumed to grow at **2.5%** (2016: 2.5%).
- Pre-tax discount rate **13%** (2016: 13%).

The estimate of value in use is approximately £50m higher than the carrying value and deterioration of key assumptions could result in an impairment. For example, the value in use would reduce by approximately £50m if alternative trading assumptions resulted in forecast cash flows reducing by 10%, by approximately £60m if the discount rate increased by 1% and by approximately £100m if the market recovery were delayed by one year compared to that assumed.

On 17 January 2018, the Group announced a strategic review of commercial marine. Until the review is sufficiently advanced, it is not possible to determine reliably the full financial impact.

Rolls-Royce Power Systems AG
- Trading assumptions (e.g. volume of equipment deliveries, pricing achieved and cost escalation) are based on current and known future programmes, estimates of capture of market share and long-term economic forecasts.
- Cash flows beyond the five-year forecasts are assumed to grow at **1.8%** (2016: 2%).
- Pre-tax discount rate **11.7%** (2016 11.7%).

The Directors do not consider that any reasonably possible changes in the key assumptions would cause the value in use of the goodwill to fall below its carrying value.

Rolls-Royce Deutschland Ltd & Co KG
- Trading assumptions (e.g. volume of engine deliveries, flying hours of installed fleet and cost escalation) are based on current and known future programmes, estimates of customers' fleet requirements and long-term economic forecasts.
- Cash flows beyond the five-year forecasts are assumed to grow at **2.5%** (2016: 2.5%).
- Pre-tax discount rate **13%** (2016: 13%).

The Directors do not consider that any reasonably possible changes in the key assumptions would cause the value in use of the goodwill to fall below its carrying value.

Other intangible assets

Certification costs and participation fees, development costs and contractual aftermarket rights have been reviewed for impairment in accordance with the requirements of IAS 36 *Impairment of Assets*. Where an impairment test was considered necessary, it has been performed on the following basis:

- The carrying values have been assessed by reference to value in use. These have been estimated using cash flows from the most recent forecasts prepared by management, which are consistent with past experience and external sources of information on market conditions over the lives of the respective programmes.
- The key assumptions underlying cash flow projections are assumed market share, programme timings, unit cost assumptions, discount rates, and foreign exchange rates.
- The pre-tax cash flow projections have been discounted at **9–13%** (2016: 9-13%), based on the Group's weighted average cost of capital, adjusted for the estimated programme risk, for example taking account of whether or not the forecast cash flows arise from contracted business.

No impairment is required on this basis. However, a combination of adverse changes in assumptions (e.g. market size and share, unit costs and programme delays) and other variables (e.g. discount rate and foreign exchange rates), could result in impairment in future years.
In making this assessment, the Directors noted that the adoption of IFRS 15 on 1 January 2018 would result in the derecognition of contractual aftermarket rights of £873m, which will itself significantly reduce the risk of impairment on other intangible assets.

10 Property, plant and equipment

	Land and buildings £m	Plant and equipment £m	Aircraft and engines £m	In course of construction £m	Total £m
Cost					
At 1 January 2016	1,375	3,894	339	708	6,316
Exchange differences	141	352	12	55	560
Reclassification of joint ventures to joint operations	7	87	–	–	94
Additions – purchased	25	124	51	426	626
Additions – arising from TotalCare Flex contracts (non-cash)	–	–	75	–	75
Disposals of businesses	(1)	(3)	–	–	(4)
Reclassifications	131	230	63	(424)	–
Disposals/write-offs	(11)	(85)	(49)	–	(145)
At 1 January 2017	**1,667**	**4,599**	**491**	**765**	**7,522**
Exchange differences	(18)	(61)	(5)	(11)	(95)
Additions – purchased	36	155	127	446	764
Additions – arising from TotalCare Flex contracts (non-cash)	–	–	1	–	1
Acquisition of business	74	155	28	11	268
Consolidation of previously non-consolidated subsidiary	9	1	–	–	10
Reclassifications	92	308	29	(429)	–
Transfer to assets held for sale	(5)	(11)	–	–	(16)
Disposals/write-offs	(13)	(111)	(4)	(9)	(137)
Adjustment [2]	–	–	20	–	20
At 31 December 2017	**1,842**	**5,035**	**687**	**773**	**8,337**
Accumulated depreciation					
At 1 January 2016	416	2,284	125	1	2,826
Exchange differences	44	182	4	–	230
Reclassification of joint ventures to joint operations	1	52	–	–	53
Charge for the year [1]	63	333	28	–	424
Impairment	1	–	–	1	2
Disposals of businesses	–	(2)	–	–	(2)
Reclassifications	–	(9)	9	–	–
Disposals/write-offs	(10)	(75)	(40)	–	(125)
At 1 January 2017	**515**	**2,765**	**126**	**2**	**3,408**
Exchange differences	(9)	(32)	(1)	–	(42)
Charge for the year [1]	58	351	35	–	444
Impairment	3	3	–	–	6
Reclassifications	(7)	7	–	–	–
Transfer to assets held for sale	(3)	(10)	–	–	(13)
Disposals/write-offs	(3)	(100)	(1)	–	(104)
Adjustment [2]	–	–	14	–	14
At 31 December 2017	**554**	**2,984**	**173**	**2**	**3,713**
Net book value					
At 31 December 2017	**1,288**	**2,051**	**514**	**771**	**4,624**
At 31 December 2016	1,152	1,834	365	763	4,114
At 1 January 2016	959	1,610	214	707	3,490

[1] Depreciation charged during the year is included in the income statement or included in the cost of inventory as appropriate.
[2] The adjustment relates to industrial engines sold with the Energy business in 2014.

10 Property, plant and equipment continued

Property, plant and equipment includes:

	2017 £m	2016 £m
Net book value of finance leased assets:		
Land and buildings	**5**	5
Plant and equipment	**7**	6
Aircraft and engines	**82**	42
Assets held for use in operating leases:		
Cost	**552**	413
Depreciation	**(140)**	(108)
Net book value	**412**	305
Capital expenditure commitments	**257**	252
Cost of fully depreciated assets	**1,355**	1,059

The Group's share of equity accounted entities' capital commitments is **£20m** (2016: £17m).

11 Investments

Composition of the Group

The entities contributing to the Group's financial results are listed on pages 175 to 182.

Non-controlling interests

The Group does not have any material non-wholly owned subsidiaries.

Equity accounted and other investments

	Equity accounted			Other
	Joint ventures £m	Associates £m	Total £m	Unlisted £m
At 1 January 2016	574	2	576	33
Exchange differences	109	(2)	107	5
Increase in share in joint ventures	154	–	154	–
Other additions	20	10	30	–
Reclassification of joint ventures to joint operations	(57)	–	(57)	–
Share of retained profit/(loss)	44	(1)	43	–
Share of OCI – will not be reclassified to profit or loss	(2)	–	(2)	–
Share of OCI – may be reclassified to profit or loss	(7)	–	(7)	–
At 1 January 2017	**835**	**9**	**844**	**38**
Exchange differences	(46)	2	(44)	2
Additions	47	1	48	4
Transfer from joint venture to subsidiary	(204)	–	(204)	–
Impairment [1]	–	(2)	(2)	(12)
Consolidation of previously non-consolidated subsidiary	–	–	–	(6)
Share of retained profit/(loss)	62	(10)	52	–
Share of OCI – will not be reclassified to profit or loss	(1)	–	(1)	–
Share of OCI – may be reclassified to profit or loss	(5)	–	(5)	–
At 31 December 2017	**688**	**–**	**688**	**26**

[1] The unlisted investment impairment of £12m relates to the consolidation of a previously non-consolidated subsidiary.

11 Investments continued

The following joint ventures are considered to be individually material to the Group:

	Principal location	Activity	Ownership interest
Alpha Partners Leasing Limited (APL)	UK	Aero engine leasing	50.0%
Hong Kong Aero Engine Services Limited (HAESL)	Hong Kong	Aero engine repair and overhaul	50.0%
Singapore Aero Engine Services Pte Limited (SAESL)	Singapore	Aero engine repair and overhaul	50.0%
Industria de Turbo Propulsores SA (ITP Aero)	Spain	Aero engine component manufacture and maintenance	46.9% [1]

[1] On 19 December 2017 the Group acquired the remaining share of ITP Aero to take the total shareholding to 100%.

Summarised financial information of the Group's individually material joint ventures is as follows:

	APL		HAESL		SAESL		ITP Aero	
	2017 £m	2016 £m	2017 £m	2016 £m	2017 £m	2016 £m	2017 £m	2016 £m
Revenue	188	151	954	799	933	763	689	615
Profit for the year	60	58	48	233	40	33	46	50
Total comprehensive income for the year	60	58	48	233	40	33	46	50
Dividends paid during the year	(25)	(27)	(44)	(237)	(47)	(24)	–	(19)
Profit for the year included the following:								
Depreciation and amortisation	(94)	(82)	(11)	(10)	(12)	(12)	(51)	(45)
Interest income	–	–	–	–	–	–	11	11
Interest expense	(34)	(24)	(1)	(1)	(2)	(2)	(15)	(16)
Income tax (charge)/credit	(10)	(5)	(9)	(8)	–	–	–	7
Current assets	185	176	268	248	362	307	–	731
Non-current assets	2,116	1,888	114	105	148	167	–	701
Current liabilities	(531)	(348)	(116)	(88)	(202)	(146)	–	(497)
Non-current liabilities	(1,299)	(1,296)	(91)	(79)	(138)	(143)	–	(485)
Net assets	471	420	175	186	170	185	–	450
Included in the above:								
Cash and cash equivalents	23	21	9	12	32	7	–	274
Current financial liabilities [1]	(503)	(292)	–	(7)	–	–	–	(12)
Non-current financial liabilities [1]	(1,101)	(1,111)	(83)	(71)	(137)	(143)	–	(331)

[1] Excluding trade and other payables.

Reconciliation to the carrying amount recognised in the Consolidated Financial Statements

	APL 2017	APL 2016	HAESL 2017	HAESL 2016	SAESL 2017	SAESL 2016	ITP Aero 2017	ITP Aero 2016
Ownership interest	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	n/a	46.9%
Group share of net assets above	236	210	88	93	85	93	n/a	211
Goodwill	–	–	34	38	92	100	n/a	–
Adjustments for intercompany trading	–	–	–	–	–	–	n/a	(43)
Included in the consolidated balance sheet	236	210	122	131	177	193	n/a	168

On 11 July 2016, the Group announced that it would purchase the outstanding 53.1% shareholding in ITP Aero owned by SENER Grupo de Ingeniería SA (SENER). This followed a decision by SENER to exercise its put option. On 19 December 2017, the Group completed the purchase of ITP Aero to take its shareholding to 100% at a valuation of €718m. Under the agreement, consideration will be settled over a two-year period in eight quarterly instalments of equal value. The updated agreement allows flexibility to settle the consideration either in cash, in the form of Rolls-Royce shares or any mixture of the two. A decision as to whether each payment will be settled in cash, shares or cash and shares will be determined by Rolls-Royce during the payment period.

11 Investments continued

The summarised aggregated results of the Group's share of all equity accounted investments is as follows:

	Individually material joint ventures (previous page)		Other joint ventures		Associates		Total	
	2017 £m	2016 £m	2017 £m	2016 £m	2017 £m	2016 £m	2017 £m	2016 £m
Assets:								
Non-current assets	1,316	1,503	835	921	–	8	2,151	2,432
Current assets	407	710	424	383	–	1	831	1,094
Liabilities: [1]								
Current liabilities	(425)	(524)	(394)	(266)	–	–	(819)	(790)
Non-current liabilities	(764)	(987)	(711)	(905)	–	–	(1,475)	(1,892)
	534	702	154	133	–	9	688	844
[1] Liabilities include borrowings of	(912)	(970)	(710)	(761)	–	–	(1,622)	(1,731)
Profit/(loss) for the year	98	84	43	34	(10)	(1)	131	117
Other comprehensive income	–	–	(5)	(7)	–	–	(5)	(7)
Total comprehensive income for the year	98	84	38	27	(10)	(1)	126	110

12 Inventories

	2017 £m	2016 £m
Raw materials	558	529
Work in progress	1,452	1,199
Long-term contracts work in progress	9	18
Finished goods	1,605	1,312
Payments on account	36	28
	3,660	3,086
Inventories stated at net realisable value	244	271
Amount of inventory write-down	85	74
Reversal of inventory write-down	4	8

13 Trade and other receivables

	2017 £m	2016 £m
Trade receivables	2,492	1,945
Amounts recoverable on contracts [1]	3,936	3,514
Amounts owed by joint ventures and associates	180	297
Other receivables	1,120	1,003
Prepayments and accrued income	191	197
	7,919	6,956
Analysed as:		
Financial instruments (note 17):		
Trade receivables and similar items	3,045	2,470
Other non-derivative financial assets	782	811
Non-financial instruments	4,092	3,675
	7,919	6,956
Trade and other receivables expected to be recovered in more than one year:		
Trade receivables	82	81
Amounts recoverable on contracts	3,328	3,020
Amounts owed by joint ventures and associates	1	–
Other receivables	41	109
Prepayments and accrued income	49	69
	3,501	3,279

[1] Amounts recoverable on contracts include **£3,536m** (2016: £3,348m) of TotalC[illegible] assets

14 Cash and cash equivalents

	2017 £m	2016 £m
Cash at bank and in hand	838	872
Money-market funds	589	552
Short-term deposits	1,526	1,347
	2,953	2,771
Overdrafts (note 15)	(20)	–
Cash and cash equivalents per cash flow statement (page 119)	2,933	2,771
Cash held as collateral against third party obligations (note 18)	22	38

Cash and cash equivalents at 31 December 2017 include **£23m** (2016: £34m) that is not available for general use by the Group. This balance relates to cash held in non-wholly owned subsidiaries and joint arrangements.

Balances are presented on a net basis when the Group has both a legal right of offset and the intention to either settle on a net basis or realise the asset and settle the liability simultaneously. A gross overdraft balance of £20m is disclosed at 31 December 2017.

15 Borrowings

	Current		Non-current		Total	
	2017 £m	2016 £m	2017 £m	2016 £m	2017 £m	2016 £m
Unsecured						
Overdrafts	20	–	–	–	20	–
Bank loans	39	169	572	271	611	440
6.75% Notes 2019 £500m [1]	–	–	519	534	519	534
2.375% Notes 2020 US$500m [2]	–	–	362	403	362	403
2.125% Notes 2021 €750m [2]	–	–	701	682	701	682
3.625% Notes 2025 US$1,000m [2]	–	–	726	814	726	814
3.375% Notes 2026 £375m [1]	–	–	412	417	412	417
Secured						
Obligations under finance leases [3]	23	3	114	64	137	67
	82	172	3,406	3,185	3,488	3,357

[1] These notes are the subject of interest rate swap agreements under which the Group has undertaken to pay floating rates of interest which form a fair value hedge.
[2] These notes are the subject of interest rate swap agreements under which the Group has undertaken to pay floating rates of interest, and currency swaps which form a fair value hedge.
[3] Obligations under finance leases are secured by related leased assets.

16 Trade and other payables

	Current		Non-current		Total	
	2017 £m	2016 £m	2017 £m	2016 £m	2017 £m	2016 £m
Payments received on account [1]	1,237	1,246	1,046	1,024	2,283	2,270
Trade payables	2,458	1,981	10	–	2,468	1,981
Amounts owed to joint ventures and associates	46	268	4	3	50	271
Other taxation and social security	125	93	–	–	125	93
Other payables	3,144	2,243	1,124	784	4,268	3,027
Accruals and deferred income	2,517	2,126	1,994	1,648	4,511	3,774
	9,527	7,957	4,178	3,459	13,705	11,416
[1] Includes payments received on account from joint ventures and associates	78	140	25	17	103	157

Included within trade and other payables are government grants of **£102m** (2016: £75m). During the year, **£7m** (2016: £11m) of government grants were released to the income statement.

Included in accruals and deferred income are deferred receipts from RRSA workshare partners of **£178m** (2016: £233m) and **£1,033m** (2016: £907m) of TotalCare liabilities. Other payables include **£378m** (2016: £671m) for financial penalties from agreements with investigating bodies and **£648m** (2016: nil) for deferred consideration in relation to the acquisition of ITP Aero (see note 25).

16 Trade and other payables continued

Trade and other payables are analysed as follows:

	2017 £m	2016 £m
Financial instruments (note 17):		
Trade payables and similar items	4,602	3,889
Other non-derivative financial liabilities	2,150	1,660
Non-financial instruments	6,953	5,867
	13,705	11,416

17 Financial instruments

Carrying values and fair values of financial instruments

			Assets				Liabilities		Total
	Notes	Basis for determining fair value	Fair value through profit or loss £m	Loans and receivables £m	Available for sale £m	Cash £m	Fair value through profit or loss £m	Other £m	£m
2017									
Unlisted non-current asset investments	11	A	–	26	–	–	–	–	26
Trade receivables and similar items	13	B	–	3,045	–	–	–	–	3,045
Other non-derivative financial assets	13	B	–	782	–	–	–	–	782
Derivative financial assets [1]		C	646	–	–	–	–	–	646
Short-term investments		B	–	3	–	–	–	–	3
Cash and cash equivalents	14	B	–	1,526	589	838	–	–	2,953
Borrowings	15	D	–	–	–	–	–	(3,488)	(3,488)
Derivative financial liabilities [1]		C	–	–	–	–	(2,730)	–	(2,730)
Financial RRSAs		E	–	–	–	–	–	(244)	(244)
TotalCare Flex		E	–	–	–	–	–	(14)	(14)
C Shares		B	–	–	–	–	–	(28)	(28)
Trade payables and similar items	16	B	–	–	–	–	–	(4,602)	(4,602)
Other non-derivative financial liabilities	16	B	–	–	–	–	–	(2,150)	(2,150)
			646	5,382	589	838	(2,730)	(10,526)	(5,801)
2016									
Unlisted non-current asset investments	11	A	–	38	–	–	–	–	38
Trade receivables and similar items	13	B	–	2,470	–	–	–	–	2,470
Other non-derivative financial assets	13	B	–	811	–	–	–	–	811
Derivative financial assets [1]		C	387	–	–	–	–	–	387
Short-term investments		B	–	3	–	–	–	–	3
Cash and cash equivalents	14	B	–	1,347	552	872	–	–	2,771
Borrowings	15	D	–	–	–	–	–	(3,357)	(3,357)
Derivative financial liabilities [1]		C	–	–	–	–	(5,636)	–	(5,636)
Financial RRSAs		E	–	–	–	–	–	(101)	(101)
TotalCare Flex		E	–	–	–	–	–	(15)	(15)
C Shares		B	–	–	–	–	–	(28)	(28)
Trade payables and similar items	16	B	–	–	–	–	–	(3,889)	(3,889)
Other non-derivative financial liabilities	16	B	–	–	–	–	–	(1,660)	(1,660)
			387	4,669	552	872	(5,636)	(9,050)	(8,206)

[1] In the event of counterparty default relating to derivative financial assets and liabilities, offsetting would apply and financial assets and liabilities held with the same counterparty would net off. If this occurred with every counterparty, total financial assets would be **£31m** and liabilities **£2,115m**.

17 Financial instruments continued

Fair values equate to book values for both 2017 and 2016, with the following exceptions:

	2017		2016	
	Book value £m	Fair value £m	Book value £m	Fair value £m
Borrowings	(3,488)	(3,557)	(3,357)	(3,413)
Financial RRSAs	(244)	(247)	(101)	(109)

The fair value of a financial instrument is the price at which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arms-length transaction. Fair values have been determined with reference to available market information at the balance sheet date, using the methodologies described below.

A These primarily comprise unconsolidated companies where fair value approximates to the book value.
B Fair values are assumed to approximate to cost either due to the short-term maturity of the instruments or because the interest rate of the investments is reset after periods not exceeding six months.
C Fair values of derivative financial assets and liabilities are estimated by discounting expected future contractual cash flows using prevailing interest rate curves. Amounts denominated in foreign currencies are valued at the exchange rate prevailing at the balance sheet date. These financial instruments are included on the balance sheet at fair value, derived from observable market prices (Level 2 as defined by IFRS 13 *Fair Value Measurement*).
D Borrowings are carried at amortised cost. Amounts denominated in foreign currencies are valued at the exchange rate prevailing at the balance sheet date. The fair value of borrowings is estimated by discounting contractual future cash flows. (Level 2 as defined by IFRS 13).
E The fair values of RRSAs and TotalCare Flex liabilities are estimated by discounting expected future cash flows. The contractual cash flows are based on future trading activity, which is estimated based on latest forecasts (Level 3 as defined by IFRS 13).

IFRS 13 defines a three-level valuation hierarchy:

Level 1 – quoted prices for similar instruments

Level 2 – directly observable market inputs other than Level 1 inputs

Level 3 – inputs not based on observable market data

Carrying values of other financial assets and liabilities

	Foreign exchange contracts £m	Commodity contracts £m	Interest rate contracts [1] £m	Total derivatives £m	Financial RRSAs £m	TotalCare Flex £m	C Shares £m	Total £m
2017								
Non-current assets	362	16	232	610	–	–	–	610
Current assets	27	9	–	36	–	–	–	36
Assets	389	25	232	646	–	–	–	646
Current liabilities	(493)	(10)	–	(503)	(50)	–	(28)	(581)
Non-current liabilities	(2,208)	(14)	(5)	(2,227)	(194)	(14)	–	(2,435)
Liabilities	(2,701)	(24)	(5)	(2,730)	(244)	(14)	(28)	(3,016)
	(2,312)	1	227	(2,084)	(244)	(14)	(28)	(2,370)
2016								
Non-current assets	13	5	364	382	–	–	–	382
Current assets	4	1	–	5	–	–	–	5
Assets	17	6	364	387	–	–	–	387
Current liabilities	(566)	(24)	–	(590)	(33)	–	(28)	(651)
Non-current liabilities	(5,002)	(38)	(6)	(5,046)	(68)	(15)	–	(5,129)
Liabilities	(5,568)	(62)	(6)	(5,636)	(101)	(15)	(28)	(5,780)
	(5,551)	(56)	358	(5,249)	(101)	(15)	(28)	(5,393)

[1] Includes the foreign exchange impact of cross-currency interest rate swaps.

17 Financial instruments continued

Derivative financial instruments

The Group uses various financial instruments to manage its exposure to movements in foreign exchange rates. Where the effectiveness of a hedging relationship in a cash flow hedge is demonstrated, changes in the fair value that are deemed effective are included in the cash flow hedge reserve and released to match actual payments on the hedged item. The Group uses commodity swaps to manage its exposure to movements in the price of commodities (jet fuel and base metals). To hedge the currency risk associated with a borrowing denominated in US dollars, the Group has currency derivatives designated as part of fair value hedges. The Group uses interest rate swaps and forward rate agreements to manage its exposure to movements in interest rates.

Movements in the fair values of derivative financial assets and liabilities were as follows:

	Foreign exchange instruments		Commodity instruments		Interest rate instruments		Total	
	2017 £m	2016 £m	2017 £m	2016 £m	2017 £m	2016 £m	2017 £m	2016 £m
At 1 January	(5,551)	(1,640)	(56)	(104)	358	13	(5,249)	(1,731)
Currency options at inception [1]	–	(33)	–	–	–	–	–	(33)
Acquisition of business	7	–	2	–	–	–	9	–
Movements in fair value hedges [2]	–	–	–	–	(131)	345	(131)	345
Movements in other derivative contracts [3]	2,611	(4,436)	37	16	–	–	2,648	(4,420)
Contracts settled	621	558	18	32	–	–	639	590
At 31 December	(2,312)	(5,551)	1	(56)	227	358	(2,084)	(5,249)

[1] The Group wrote currency options to sell USD and buy GBP as part of a commercial agreement. The fair values of these options on inception was treated as a discount to the customer.
[2] Loss on related hedged items **£131m** (2016: £345m loss).
[3] Included in financing.

Financial risk and revenue sharing arrangements and other financial liabilities

The Group has financial liabilities arising from financial RRSAs. These financial liabilities are valued at each reporting date using the amortised cost method. This involves calculating the present value of the forecast cash flows of the arrangements using the internal rate of return at the inception of the arrangements as the discount rate.

Movements in the carrying values were as follows:

	Financial RRSAs		TotalCare Flex	
	2017 £m	2016 £m	2017 £m	2016 £m
At 1 January	(101)	(110)	(15)	–
Exchange adjustments included in OCI	(14)	5	–	–
Acquisition of business	(157)	–	–	–
Additions	–	–	–	(14)
Financing charge [1]	(5)	(6)	–	(1)
Excluded from underlying profit:				
Changes in forecast payments [1]	1	5		
Exchange adjustments [1]	10	(13)	1	(3)
Cash paid to partners	22	18		
Other	–	–	–	3
At 31 December	(244)	(101)	(14)	(15)

[1] Included in financing.

17 Financial instruments continued

Risk management policies and hedging activities

The principal financial risks to which the Group is exposed are: foreign currency exchange rate risk; liquidity risk; credit risk; interest rate risk; and commodity price risk. The Board has approved policies for the management of these risks.

Foreign currency exchange rate risk – The Group has significant cash flows (most significantly US dollars, followed by the euro) denominated in currencies other than the functional currency of the relevant trading entity. To manage its exposures to changes in values of future foreign currency cash flows, so as to maintain relatively stable long-term foreign exchange rates on settled transactions, the Group enters into derivative forward foreign currency transactions. For accounting purposes, these derivative contracts are generally not designated as hedging instruments.

The Group also has exposures to the fair values of non-derivative financial instruments denominated in foreign currencies. To manage the risk of changes in these fair values, the Group enters into derivative forward foreign exchange contracts, which are designated as fair value hedges for accounting purposes.

The Group regards its interests in overseas subsidiary companies as long-term investments. The Group aims to match its translational exposures by matching the currencies of assets and liabilities.

Liquidity risk – The Group's policy is to hold financial investments and maintain undrawn committed facilities at a level sufficient to ensure that the Group has available funds to meet its medium-term capital and funding obligations and to meet any unforeseen obligations and opportunities. The Group holds cash and short-term investments, which together with the undrawn committed facilities, enable the Group to manage its liquidity risk.

Credit risk – The Group is exposed to credit risk to the extent of non-payment by either its customers or the counterparties of its financial instruments. The effective monitoring and controlling of credit risk is a key component of the Group's risk management activities. The Group has credit policies covering both trading and financial exposures. Credit risks arising from treasury activities are managed by a central treasury function in accordance with the Group credit policy. The objective of the policy is to diversify and minimise the Group's exposure to credit risk from its treasury activities by ensuring the Group transacts strictly with 'BBB+' or higher-rated financial institutions based on pre-established limits per financial institution. At the balance sheet date, there were no significant concentrations of credit risk to individual customers or counterparties. The maximum exposure to credit risk at the balance sheet date is represented by the carrying value of each financial asset, including derivative financial instruments.

Interest rate risk – The Group's interest rate risk is primarily in relation to its fixed rate borrowings (fair value risk), floating rate borrowings and cash and cash equivalents (cash flow risk). Interest rate derivatives are used to manage the overall interest rate profile within the Group policy, which is to maintain a higher proportion of net funds at floating rates of interest as a natural hedge to the net cash position. These are designated as either fair value or cash flow hedges as appropriate.

Commodity risk – The Group has exposures to the price of jet fuel and base metals arising from business operations. To minimise its cash flow exposures to changes in commodity prices, the Group enters into derivative commodity transactions. For accounting purposes, these derivative contracts are generally not designated as hedging instruments.

Other price risk – The Group's cash equivalent balances represent investments in money-market instruments, with a term of up to three months. The Group does not consider that these are subject to significant price risk.

17 Financial instruments continued

Derivative financial instruments

The nominal amounts, analysed by year of contractual maturity, and fair values of derivative financial instruments are as follows:

		Contractual maturity				Fair value	
	Nominal amount £m	Within one year £m	Between one and two years £m	Between two and five years £m	After five years £m	Assets £m	Liabilities £m
At 31 December 2017							
Foreign exchange contracts:							
Cash-flow hedges	**214**	**97**	**81**	**36**	**–**	**7**	**–**
Non-hedge accounted	**29,130**	**4,505**	**3,674**	**13,051**	**7,900**	**382**	**(2,701)**
Interest rate contracts:							
Fair value hedges	**2,650**	**–**	**500**	**1,035**	**1,115**	**227**	**–**
Cash-flow hedges	**19**	**4**	**4**	**11**	**–**	**–**	**–**
Non-hedge accounted	**–**	**–**	**–**	**–**	**–**	**5**	**(5)**
Commodity contracts:							
Cash-flow hedges	**41**	**8**	**7**	**19**	**7**	**5**	**(3)**
Non-hedge accounted	**241**	**85**	**68**	**81**	**7**	**20**	**(21)**
	32,295	**4,699**	**4,334**	**14,233**	**9,029**	**646**	**(2,730)**
At 31 December 2016							
Foreign exchange contracts:							
Non-hedge accounted	29,021	3,403	5,056	12,484	8,078	17	(5,568)
Interest rate contracts:							
Fair value hedges	2,735	–	–	1,548	1,187	358	–
Non-hedge accounted	–	–	–	–	–	6	(6)
Commodity contracts:							
Non-hedge accounted	300	83	80	122	15	6	(62)
	32,056	3,486	5,136	14,154	9,280	387	(5,636)

As described above, all derivative financial instruments are entered into for risk management purposes, although these may not be designated into hedging relationships for accounting purposes.

Currency analysis

Derivative financial instruments related to foreign exchange risks are denominated in the following currencies:

	Currencies purchased forward				
	Sterling £m	US dollar £m	Euro £m	Other £m	Total £m
At 31 December 2017					
Currencies sold forward:					
Sterling	**–**	**–**	**127**	**241**	**368**
US dollar	**25,177**	**–**	**2,272**	**802**	**28,251**
Euro	**136**	**177**	**–**	**251**	**564**
Other	**27**	**29**	**89**	**16**	**161**
At 31 December 2016					
Currencies sold forward:					
Sterling	–	–	246	274	520
US dollar	25,089	–	1,882	903	27,874
Euro	35	146	–	196	377
Other	13	101	112	24	250

Other derivative financial instruments are denominated in the following currencies:

	2017 £m	2016 £m
Sterling	**875**	875
US dollar	**1,383**	1,515
Euro	**693**	645

17 Financial instruments continued

Non-derivative financial instruments are denominated in the following currencies:

	Sterling £m	US dollar £m	Euro £m	Other £m	Total £m
At 31 December 2017					
Unlisted non-current investments	–	5	20	1	26
Trade receivables and similar items	171	2,012	760	102	3,045
Other non-derivative financial assets	227	284	129	142	782
Short-term investments	–	–	–	3	3
Cash and cash equivalents	827	1,055	807	264	2,953
Assets	1,225	3,356	1,716	512	6,809
Borrowings	(1,462)	(1,225)	(767)	(34)	(3,488)
Financial RRSAs	–	(60)	(184)	–	(244)
TotalCare Flex	–	(14)	–	–	(14)
C Shares	(28)	–	–	–	(28)
Trade payables and similar items	(1,668)	(1,652)	(1,149)	(133)	(4,602)
Other non-derivative financial liabilities	(702)	(536)	(845)	(67)	(2,150)
Liabilities	(3,860)	(3,487)	(2,945)	(234)	(10,526)
	(2,635)	(131)	(1,229)	278	(3,717)
At 31 December 2016					
Unlisted non-current investments	–	1	36	1	38
Trade receivables and similar items	160	1,567	653	90	2,470
Other non-derivative financial assets	284	271	123	133	811
Short-term investments	–	–	–	3	3
Cash and cash equivalents	1,134	831	507	299	2,771
Assets	1,578	2,670	1,319	526	6,093
Borrowings	(1,194)	(1,374)	(783)	(6)	(3,357)
Financial RRSAs	9	(78)	(32)	–	(101)
TotalCare Flex	–	(15)	–	–	(15)
C Shares	(28)	–	–	–	(28)
Trade payables and similar items	(1,730)	(1,437)	(573)	(149)	(3,889)
Other non-derivative financial liabilities	(889)	(588)	(138)	(45)	(1,660)
Liabilities	(3,832)	(3,492)	(1,526)	(200)	(9,050)
	(2,254)	(822)	(207)	326	(2,957)

Currency exposures

The Group's actual currency exposures after taking account of derivative foreign currency contracts, which may not be designated as hedging instruments for accounting purposes are as follows:

Functional currency of Group operations	Sterling £m	US dollar £m	Euro £m	Other £m	Total £m
At 31 December 2017					
Sterling [1]	–	3	(642)	11	(628)
US dollar	(10)	–	(5)	8	(7)
Euro	3	212	–	7	222
Other	–	4	18	(3)	19
At 31 December 2016					
Sterling	–	(1)	3	–	2
US dollar	(22)	–	(2)	19	(5)
Euro	(2)	(1)	–	1	(2)
Other	3	9	18	2	32

[1] The euro exposure primarily relates to deferred consideration payable on the acquisition of ITP Aero. Movements in this balance in relation to foreign exchange (recognised through the consolidated income statement) are partially matched by the related foreign exchange movement in the subsidiary's net assets, recognised through the consolidated statement of other comprehensive income.

17 Financial instruments continued

Ageing beyond contractual due date of financial assets

	Within terms £m	Up to three months overdue £m	Between three months and one year overdue £m	More than one year overdue £m	Total £m
At 31 December 2017					
Unlisted non-current asset investments	**26**	**–**	**–**	**–**	**26**
Trade receivables and similar items	**2,723**	**199**	**70**	**53**	**3,045**
Other non-derivative financial assets	**781**	**–**	**1**	**–**	**782**
Derivative financial assets	**646**	**–**	**–**	**–**	**646**
Short-term investments	**3**	**–**	**–**	**–**	**3**
Cash and cash equivalents	**2,953**	**–**	**–**	**–**	**2,953**
	7,132	**199**	**71**	**53**	**7,455**
At 31 December 2016					
Unlisted non-current asset investments	38	–	–	–	38
Trade receivables and similar items	2,133	218	85	34	2,470
Other non-derivative financial assets	796	13	–	2	811
Derivative financial assets	387	–	–	–	387
Short-term investments	3	–	–	–	3
Cash and cash equivalents	2,771	–	–	–	2,771
	6,128	231	85	36	6,480

Contractual maturity analysis of financial liabilities

	Gross values					
	Within one year £m	Between one and two years £m	Between two and five years £m	After five years £m	Discounting £m	Carrying value £m
At 31 December 2017						
Borrowings	**(186)**	**(831)**	**(1,345)**	**(1,598)**	**472**	**(3,488)**
Derivative financial liabilities [1]	**(514)**	**(561)**	**(1,448)**	**(785)**	**578**	**(2,730)**
Financial RRSAs	**(40)**	**(50)**	**(96)**	**(80)**	**22**	**(244)**
TotalCare Flex	**–**	**–**	**(17)**	**–**	**3**	**(14)**
C Shares	**(28)**	**–**	**–**	**–**	**–**	**(28)**
Trade payables and similar items	**(4,545)**	**(40)**	**(17)**	**–**	**–**	**(4,602)**
Other non-derivative financial liabilities	**(1,262)**	**(436)**	**(331)**	**(121)**	**–**	**(2,150)**
	(6,575)	**(1,918)**	**(3,254)**	**(2,584)**	**1,075**	**(13,256)**
Derivative financial liabilities comprise:						
Cash inflows on foreign exchange contracts	*3,443*	*3,310*	*8,310*	*4,321*		
Cash outflows on foreign exchange contracts	*(3,947)*	*(3,862)*	*(9,748)*	*(5,106)*		
Other net cash flows	*(10)*	*(9)*	*(10)*	*–*		
Total	*(514)*	*(561)*	*(1,448)*	*(785)*		
At 31 December 2016						
Borrowings	(276)	(114)	(2,007)	(1,458)	498	(3,357)
Derivative financial liabilities [1]	(605)	(1,298)	(3,196)	(1,424)	887	(5,636)
Financial RRSAs	(24)	(26)	(66)	(2)	17	(101)
TotalCare Flex	–	–	(18)	–	3	(15)
C Shares	(28)	–	–	–	–	(28)
Trade payables and similar items	(3,860)	(15)	–	(14)	–	(3,889)
Other non-derivative financial liabilities	(1,080)	(68)	(438)	(74)	–	(1,660)
	(5,873)	(1,521)	(5,725)	(2,972)	1,405	(14,686)
Derivative financial liabilities comprise:						
Cash inflows on foreign exchange contracts	*3,079*	*5,013*	*12,409*	*7,342*		
Cash outflows on foreign exchange contracts	*(3,660)*	*(6,295)*	*(15,582)*	*(8,763)*		
Other net cash flows	*(24)*	*(16)*	*(23)*	*(3)*		
Total	*(605)*	*(1,298)*	*(3,196)*	*(1,424)*		

[1] The Group regularly renegotiates the contractual maturities of its foreign exchange contracts. In general, the effect of such negotiations is the settlement of derivative financial liabilities somewhat earlier than the contractual maturity date.

17 Financial instruments continued

Interest rate risk

In respect of income earning financial assets and interest bearing financial liabilities, the following table indicates their effective interest rates and the periods in which they reprice. The value shown is the carrying amount.

At 31 December 2017	Effective interest rate %	Total £m	Period in which interest rate reprices: 6 months or less £m	6-12 months £m
Short-term investments [1]		3	1	2
Cash and cash equivalents [2]		2,953	2,953	–
Unsecured bank loans				
Other borrowings		(54)	(20)	–
£200m floating rate loan	GBP LIBOR + 1.26	(200)	(200)	–
£43m floating rate loan	GBP LIBOR + 0.402	(43)	(43)	–
£280m floating rate loan	GBP LIBOR + 0.805	(280)	(280)	–
€50m fixed rate loan	2.3500%	(20)	–	–
€20m floating rate loan	EUR LIBOR+ 1.9310	(15)	(15)	–
€30m floating rate loan [3]	EUR LIBOR + 2.001	(19)	(19)	–
Unsecured bond issues				
6.75% Notes 2019 £500m	6.7500%	(519)	–	–
Effect of interest rate swaps	GBP LIBOR + 2.9824	–	(519)	–
2.375% Notes 2020 US$500m	2.3750%	(362)	–	–
Effect of interest rate swaps	GBP LIBOR + 0.8410	–	(362)	–
2.125% Notes 2021 €750m	2.1250%	(701)	–	–
Effect of interest rate swaps	GBP LIBOR +0.7005	–	(701)	–
3.625% Notes 2025 US$1,000m	3.6250%	(726)	–	–
Effect of interest rate swaps	GBP LIBOR + 1.4658	–	(726)	–
3.375% Notes 2026 £375m	3.3750%	(412)	–	–
Effect of interest rate swaps	GBP LIBOR + 0.8930	–	(412)	–
Other secured				
Obligations under finance leases	4.1442%	(137)	–	–
		(532)		

At 31 December 2016	Effective interest rate %	Total £m	Period in which interest rate reprices: 6 months or less £m	6-12 months £m
Short-term investments [1]		3	1	2
Cash and cash equivalents [2]		2,771	2,771	–
Unsecured bank loans				
Other borrowings		(107)	–	–
£200m floating rate loan	GBP LIBOR + 1.26	(200)	(200)	–
£43m floating rate loan	GBP LIBOR + 0.402	(43)	(43)	–
€75m fixed rate loan	2.0600%	(64)	–	–
€50m fixed rate loan	2.3500%	(26)	–	–
Unsecured bond issues				
6.75% Notes 2019 £500m	6.7500%	(534)	–	–
Effect of interest rate swaps	GBP LIBOR + 2.9824	–	(534)	–
2.375% Notes 2020 US$500m	2.3750%	(403)	–	–
Effect of interest rate swaps	GBP LIBOR + 0.8410	–	(403)	–
2.125% Notes 2021 €750m	2.1250%	(682)	–	–
Effect of interest rate swaps	GBP LIBOR +0.7005	–	(682)	–
3.625% Notes 2025 US$1,000m	3.6250%	(814)	–	–
Effect of interest rate swaps	GBP LIBOR + 1.4658	–	(814)	–
3.375% Notes 2026 £375m	3.3750%	(417)	–	–
Effect of interest rate swaps	GBP LIBOR + 0.8930	–	(417)	–
Other secured				
Obligations under finance leases	4.5488%	(67)	–	–
		(583)		

[1] Interest on the short-term investments are at fixed rates.
[2] Cash and cash equivalents comprise bank balances and demand deposits and earn interest at rates based on daily deposit rates.
[3] Interest rate swap in place to hedge floating rate loan.

17 Financial instruments continued

Some of the Group's borrowings are subject to the Group meeting certain obligations, including customary financial covenants. If the Group fails to meet its obligations these arrangements give rights to the lenders, upon agreement, to accelerate repayment of the facilities. There are no rating triggers contained in any of the Group's facilities that could require the Group to accelerate or repay any facility for a given movement in the Group's credit rating.

In addition, the Group has **£2,106m** (2016: £2,280m) of undrawn committed borrowing facilities of which £2,000m is available for at least the next two years.

Sensitivity analysis

Sensitivities at 31 December (all other variables held constant) – impact on profit after tax and equity	2017 £m	2016 £m
Sterling 10% weaker against the US dollar	**(2,323)**	(2,552)
Sterling 10% stronger against the US dollar	**1,856**	2,089
Euro 10% weaker against the US dollar	**(126)**	(158)
Euro 10% stronger against the US dollar	**99**	133
Sterling 10% weaker against the Euro	**(14)**	26
Sterling 10% stronger against the Euro	**11**	(21)
Commodity prices 10% lower	**(22)**	(19)
Commodity prices 10% higher	**22**	19

At 31 December 2017, the Group had no material sensitivity to changes in interest rates on that date. The main interest rate sensitivity for the Group arises as a result of the gross up of net cash and this is mitigated as described under the interest rate risk management policies on page 152.

C Shares and payments to shareholders

The Company issues non-cumulative redeemable preference shares (C Shares) as an alternative to paying a cash dividend. C Shares in respect of a year are issued in the following year. Shareholders are able to redeem any number of their C Shares for cash. Any C Shares retained attract a dividend of 75% of LIBOR on the 0.1p nominal value of each share, paid on a twice-yearly basis, and have limited voting rights. The Company has the option to compulsorily redeem the C Shares, at any time, if the aggregate number of C Shares in issue is less than 10% of the aggregate number of C Shares issued, or on the acquisition or capital restructuring of the Company.

Movements in issued and fully paid C Shares during the year were as follows:

	2017		2016	
	Millions	**Nominal value £m**	Millions	Nominal value £m
At 1 January	**28,125**	**28**	28,960	29
Issued	**215,235**	**215**	300,993	301
Redeemed	**(214,931)**	**(215)**	(301,828)	(302)
At 31 December	**28,429**	**28**	28,125	28

Payments to shareholders in respect of the year represent the value of C Shares to be issued in respect of the results for the year. Issues of C Shares were declared as follows:

	2017		2016	
	Pence per share	**£m**	Pence per share	£m
Interim	**4.60**	**85**	4.60	85
Final	**7.10**	**131**	7.10	130
	11.70	**216**	11.70	215

18 Provisions for liabilities and charges

	At 1 January 2017 £m	Exchange differences £m	Acquisition of business £m	Re-classification [1] £m	Unused amounts reversed £m	Charged to income statement £m	Utilised £m	At 31 December 2017 £m
Warranties and guarantees [1]	**474**	–	5	(61)	(18)	140	(111)	**429**
Contract loss	**54**	(1)	63	–	(3)	14	(21)	**106**
Restructuring	**44**	1	–	–	(7)	28	(30)	**36**
Customer financing	**19**	–	–	–	(3)	5	–	**21**
Insurance	**68**	–	–	–	–	27	(32)	**63**
Tax related interest and penalties	**–**	–	–	56	–	–	–	**56**
Employer liability claims [1]	**–**	–	–	61	–	–	–	**61**
Other	**100**	(2)	–	–	(26)	114	(75)	**111**
	759	(2)	68	56	(57)	328	(269)	**883**
Current liabilities	**543**							**526**
Non-current liabilities	**216**							**357**

[1] The reclassification of provisions includes: (i) £61m relating to employer healthcare liability claims as a result of an historic insolvency of the previous provider; and (ii) a provision for tax related interest and penalties of £56m that was previously included in current tax liabilities which has been reclassified following guidance issued by the International Financial Reporting Interpretations Committee (IFRIC) in September 2017. Prior year figures have not been restated.

Provisions for warranties and guarantees primarily relate to products sold and generally cover a period of up to three years.

Provisions for contract loss and restructuring are generally expected to be utilised within two years.

In connection with the sale of its products the Group will, on some occasions, provide financing support for its customers – generally in respect of civil aircraft. The Group's commitments relating to these financing arrangements are spread over many years, relate to a number of customers and a broad product portfolio and are generally secured on the asset subject to the financing. These include commitments of **US$3.3bn** (2016: US$3.2bn) (on a discounted basis) to provide borrowing facilities to enable customers to purchase aircraft (of which approximately US$390m (on a discounted basis) could be called during 2018). These facilities may only be used if the customer is unable to obtain financing elsewhere and are priced at a premium to the market rate. Consequently the Directors do not consider that there is a significant exposure arising from the provision of these facilities.

Customer financing provisions cover guarantees provided for asset value and/or financing. It is estimated that the provision will be utilised as follows:

	2017 £m	2016 £m
Potential claims with specific claim dates:		
In one year or less	**11**	2
In more than one year but less than five years	**5**	12
In more than five years	**5**	5
	21	19

Commitments on delivered aircraft in excess of the amounts provided are shown in the table below. These are reported on a discounted basis at the Group's borrowing rate to reflect better the time span over which these exposures could arise. These amounts do not represent values that are expected to crystallise. The commitments are denominated in US dollars. As the Group does not generally adopt cash flow hedge accounting for future foreign exchange transactions, this amount is reported, together with the sterling equivalent at the reporting date spot rate. The values of aircraft providing security are based on advice from a specialist aircraft appraiser.

	2017		2016	
	£m	*$m*	£m	*$m*
Gross commitments	**145**	***196***	238	*293*
Value of security [1]	**(41)**	***(55)***	(103)	*(126)*
Indemnities	**(51)**	***(69)***	(74)	*(91)*
Net commitments	**53**	***72***	61	*76*
Net commitments with security reduced by 20% [2]	**64**	***86***	86	*106*
[1] Security includes unrestricted cash collateral of:	**22**	***29***	38	*47*

[2] Although sensitivity calculations are complex, the reduction of relevant security by 20% illustrates the sensitivity to changes in this assumption.

The Group's captive insurance company retains a portion of the exposures it insures on behalf of the remainder of the Group. Significant delays occur in the notification and settlement of claims and judgement is involved in assessing outstanding liabilities, the ultimate cost and timing of which cannot be known with certainty at the balance sheet date. The insurance provisions are based on information currently available, however it is inherent in the nature of the business that ultimate liabilities may vary. Provisions for outstanding claims are established to cover the outstanding expected liability as well as claims incurred but not yet reported.

Other provisions comprise a number of liabilities with varying expected utilisation rates.

19 Post-retirement benefits

The Group operates a number of defined benefit and defined contribution schemes:

- The UK defined benefit scheme is funded, with the assets held in a separate trustee-administered fund. Employees are entitled to retirement benefits based on either their final or career-average salaries and length of service.
- Overseas defined benefit schemes are a mixture of funded and unfunded plans and provide benefits in line with local practice. Additionally, in the US, and to a lesser extent in some other countries, the Group's employment practices include the provision of healthcare and life insurance benefits for retired employees. These schemes are unfunded.

The valuations of the defined benefit schemes are based on the most recent funding valuations, where relevant, updated by the scheme actuaries to 31 December 2017.

The defined benefit schemes expose the Group to actuarial risks such as longevity, interest rate, inflation and investment risks. In the UK, and in the principal US and Canadian pension schemes, the Group has adopted investment policies to mitigate some of these risks. This involves investing a significant proportion of the schemes' assets in Liability Driven Investment portfolios, which hold investments designed to offset interest rate and inflation rate risks. In addition, in the UK, the scheme has invested in a longevity swap, which is designed to offset longevity risks in respect of approximately two thirds of current pensioners.

Following the buy-out of the liabilities of the Vickers Group Pension Scheme in 2016, the scheme returned its remaining surplus of £5m (net of tax) to the Group in the year. This scheme is expected to be formally wound up in early 2018.

Amounts recognised in the income statement

	2017			2016		
	UK schemes £m	Overseas schemes £m	Total £m	UK schemes £m	Overseas schemes £m	Total £m
Defined benefit schemes:						
Current service cost and administrative expenses [1]	190	58	248	169	50	219
Past-service (credit)/cost	(8)	–	(8)	(22)	1	(21)
Settlements [1]	–	–	–	302	10	312
	182	58	240	449	61	510
Defined contribution schemes	33	100	133	29	87	116
Operating cost	215	158	373	478	148	626
Net financing (credit)/charge in respect of defined benefit schemes	(38)	37	(1)	(41)	38	(3)
Total income statement charge	177	195	372	437	186	623

[1] In 2016, £306m of costs were excluded from the underlying results, these comprised: £301m settlement cost on the buy-out of the Vickers Group Pension Scheme; £3m of administrative expenses on the restructuring all the UK defined benefit plans; and £2m settlement cost in relation to winding-up lump sums on small pensions as a consequence of the restructuring.

The operating cost is charged as follows:

	Defined benefit		Defined contribution		Total	
	2017 £m	2016 £m	2017 £m	2016 £m	2017 £m	2016 £m
Cost of sales	169	133	92	72	261	205
Commercial and administrative costs	38	343	23	27	61	370
Research and development	33	34	18	17	51	51
	240	510	133	116	373	626

19 Post-retirement benefits continued

Net financing comprises:

	2017			2016		
	UK schemes £m	**Overseas schemes £m**	**Total £m**	UK schemes £m	Overseas schemes £m	Total £m
Financing on scheme obligations	317	65	382	385	65	450
Financing on scheme assets	(355)	(28)	(383)	(426)	(27)	(453)
Net financing (income)/charge in respect of defined benefit schemes	(38)	37	(1)	(41)	38	(3)
Financing income on scheme surpluses	(38)	(1)	(39)	(41)	(1)	(42)
Financing cost on scheme deficits	–	38	38	–	39	39

Amounts recognised in OCI in respect of defined benefit schemes

	2017			2016		
	UK schemes £m	**Overseas schemes £m**	**Total £m**	UK schemes £m	Overseas schemes £m	Total £m
Actuarial gains and losses arising from demographic assumptions	208	15	223	566	12	578
Actuarial gains and losses arising from financial assumptions	96	(88)	8	(2,360)	(90)	(2,450)
Actuarial gains and losses arising from experience adjustments	173	9	182	(16)	52	36
Return on scheme assets excluding financing income	265	57	322	2,326	5	2,331
	742	(7)	735	516	(21)	495

Amounts recognised in the balance sheet in respect of defined benefit schemes

	2017			2016		
	UK schemes £m	**Overseas schemes £m**	**Total £m**	UK schemes £m	Overseas schemes £m	Total £m
Present value of funded obligations	(11,499)	(774)	(12,273)	(12,014)	(798)	(12,812)
Fair value of scheme assets	13,607	750	14,357	13,350	747	14,097
Net asset/(liability) on funded schemes	2,108	(24)	2,084	1,336	(51)	1,285
Present value of unfunded obligations	–	(1,346)	(1,346)	–	(1,314)	(1,314)
Net asset [1]/(liability) recognised in the balance sheet	2,108	(1,370)	738	1,336	(1,365)	(29)
Post-retirement scheme surpluses	2,108	17	2,125	1,336	10	1,346
Post-retirement scheme deficits	–	(1,387)	(1,387)	–	(1,375)	(1,375)

[1] The surplus in the UK scheme is recognised as, on ultimate wind-up when there are no longer any remaining beneficiaries, any surplus would be returned to the Group, which has the power to prevent the surplus being used for other purposes in advance of this event.

Overseas schemes are located in the following countries:

	2017			2016		
	Assets £m	**Obligations £m**	**Net £m**	Assets £m	Obligations £m	Net £m
Canada	197	(243)	(46)	194	(243)	(49)
Germany	–	(789)	(789)	–	(717)	(717)
US pension schemes	553	(602)	(49)	553	(631)	(78)
US healthcare schemes	–	(460)	(460)	–	(497)	(497)
Other	–	(26)	(26)	–	(24)	(24)
Net asset/(liability) recognised in the balance sheet	750	(2,120)	(1,370)	747	(2,112)	(1,365)

19 Post-retirement benefits continued

Defined benefit schemes' assumptions

Significant actuarial assumptions for the UK schemes used at the balance sheet date were as follows:

		2017	2016
Discount rate		2.55%	2.70%
Inflation assumption (RPI) [1]		3.40%	3.50%
Rate of increase in salaries		3.65%	4.25%
Life expectancy from age 65:	current male pensioner	22.2 years	22.7 years
	future male pensioner currently aged 45	23.5 years	24.3 years
	current female pensioner	23.5 years	24.1 years
	future female pensioner currently aged 45	25.3 years	26.4 years

[1] This is the assumption for the Retail Price Index. The Consumer Price Index is assumed to be 1.1% lower.

Discount rates are determined by reference to the market yields on AA rated corporate bonds. The rate is determined by using the profile of forecast benefit payments to derive a weighted average discount rate from the yield curve.

The inflation assumption is determined by the market implied assumption based on the yields on long-term indexed linked government securities and increases in salaries are based on actual experience, allowing for promotion, of the real increase above inflation.

The mortality assumptions adopted for the UK pension schemes are derived from the SAPS 2 "All" actuarial tables, with future improvements in line with the CMI 2016 core projections and long-term improvements of 1.25%. Where appropriate, these are adjusted to take account of the relevant scheme's actual experience.

Other assumptions have been set on advice from the relevant actuary, having regard to the latest trends in scheme experience and the assumptions used in the most recent funding valuation. The rate of increase of pensions in payment is based on the rules of the relevant scheme, combined with the inflation assumption where the increase is capped.

Assumptions for overseas schemes are less significant and are based on advice from local actuaries. The principal assumptions are:

		2017	2016
Discount rate		2.9%	3.3%
Inflation assumption		2.1%	2.1%
Long-term healthcare cost trend rate		4.8%	4.8%
Male life expectancy from age 65:	current pensioner	20.2 years	21.0 years
	future pensioner currently aged 45	22.1 years	22.5 years

Changes in present value of defined benefit obligations

	2017			2016		
	UK schemes £m	Overseas schemes £m	Total £m	UK schemes £m	Overseas schemes £m	Total £m
At 1 January	(12,014)	(2,112)	(14,126)	(10,914)	(1,717)	(12,631)
Exchange differences	–	81	81	–	(339)	(339)
Current service cost	(183)	(56)	(239)	(160)	(48)	(208)
Past service cost	8	–	8	22	(1)	21
Finance cost	(317)	(65)	(382)	(385)	(64)	(449)
Contributions by employees	(3)	(7)	(10)	(3)	(2)	(5)
Benefits paid out	533	87	620	430	79	509
Actuarial gains/(losses)	477	(64)	413	(1,810)	(27)	(1,837)
Settlement	–	(3)	(3)	806	10	816
Other movements	–	19	19	–	(3)	(3)
At 31 December	(11,499)	(2,120)	(13,619)	(12,014)	(2,112)	(14,126)
Funded schemes	(11,499)	(774)	(12,273)	(12,014)	(798)	(12,812)
Unfunded schemes	–	(1,346)	(1,346)	–	(1,314)	(1,314)
The defined benefit obligations are in respect of:						
Active plan participants	(4,625)	(1,124)	(5,749)	(5,279)	(1,120)	(6,399)
Deferred plan participants	(2,243)	(164)	(2,407)	(2,146)	(154)	(2,300)
Pensioners	(4,631)	(832)	(5,463)	(4,589)	(838)	(5,427)
Weighted average duration of obligations (years)	20	16	19	20	16	19

19 Post-retirement benefits continued

Changes in fair value of scheme assets

	2017			2016		
	UK schemes £m	Overseas schemes £m	Total £m	UK schemes £m	Overseas schemes £m	Total £m
At 1 January	13,350	747	14,097	11,957	597	12,554
Exchange differences	–	(56)	(56)	–	131	131
Administrative expenses	(7)	(2)	(9)	(9)	(2)	(11)
Financing	355	28	383	426	27	453
Return on plan assets excluding financing	265	57	322	2,326	5	2,331
Contributions by employer [1]	174	75	249	185	86	271
Contributions by employees	3	7	10	3	2	5
Benefits paid out	(533)	(87)	(620)	(430)	(79)	(509)
Settlements/curtailment	–	(19)	(19)	(1,108)	(20)	(1,128)
At 31 December	13,607	750	14,357	13,350	747	14,097
Total return on scheme assets	620	85	705	2,752	32	2,784

[1] Pension contributions to UK pension arrangements are generally paid via a salary sacrifice scheme under which employees agree to a reduction in gross contractual pay in return for the Group making additional pension contributions on their behalf. As a result, there is a decrease in wages and salaries and a corresponding increase in pension costs of **£30m** (2016: £31m) in the year.

Fair value of scheme assets at 31 December

	2017			2016		
	UK schemes £m	Overseas schemes £m	Total £m	UK schemes £m	Overseas schemes £m	Total £m
Sovereign debt	9,135	308	9,443	7,574	335	7,909
Derivatives on sovereign debt	–	2	2	–	3	3
Corporate debt instruments	3,223	337	3,560	3,061	297	3,358
Interest rate swaps	2,266	–	2,266	2,063	–	2,063
Inflation swaps	(480)	–	(480)	(420)	–	(420)
Cash and similar instruments [1]	(1,761)	20	(1,741)	(51)	15	(36)
Liability driven investment (LDI) portfolios [2]	12,383	667	13,050	12,227	650	12,877
Longevity swap [3]	(187)	–	(187)	(175)	–	(175)
Listed equities	1,141	76	1,217	969	82	1,051
Unlisted equities	162	–	162	214	–	214
Synthetic equities [4]	–	2	2	–	3	3
Sovereign debt	–	4	4	–	4	4
Corporate debt instruments	100	–	100	–	–	–
Cash	8	2	10	25	9	34
Other	–	(1)	(1)	90	(1)	89
	13,607	750	14,357	13,350	747	14,097

[1] Cash and similar instruments include repurchase agreements on UK Government bonds amounting to **£(2,285)m** (2016: £(321)m). The latest maturity date for these short-term borrowings is 7 March 2019.
[2] A portfolio of gilt and swap contracts, backed by investment grade credit instruments and LIBOR generating assets, that is designed to hedge the majority of the interest rate and inflation risks associated with the schemes' obligations.
[3] Under the longevity swap, the Rolls-Royce UK Pension fund has agreed an average life expectancy of pensioners with a counterparty. If pensioners live longer than expected the counterparty will make payments to the fund to offset the additional cost of paying pensioners. If the reverse applies the cost of paying pensioners will be reduced but the scheme will be required to make payments to the counterparty. The longevity swap is valued at fair value in accordance with IFRS 13 (Level 3).
[4] A portfolio of swap contracts designed to provide investment returns in line with global equity markets. The notional value of the portfolio was **$84m** (2016 $125m).

The investment strategy for the UK scheme is controlled by the Trustee in consultation with the Group. The scheme assets do not directly include any of the Group's own financial instruments, nor any property occupied by, or other assets used by, the Group. At 31 December 2017, there was an indirect holding of £1m of the Group's financial instruments.

The longevity swap is valued by the scheme actuaries based on the difference between the agreed longevity assumptions at inception and actual longevity experience. All other fair values are provided by the fund managers. Where available, the fair values are quoted prices (e.g. listed equity, sovereign debt and corporate bonds). Unlisted investments (private equity) are included at values provided by the fund manager in accordance with relevant guidance. Other significant assets are valued based on observable inputs such as yield curves.

19 Post-retirement benefits continued

Future contributions

The Group expects to contribute approximately £230m to its defined benefit schemes in respect of 2018 (UK: £145m, Overseas: £85m).

In the UK, the funding is based on a statutory triennial funding valuation process. This includes a negotiation between the Group and the Trustee on actuarial assumptions used to value obligations (Technical Provisions) which may differ from those used for accounting set out above. The assumptions used to value Technical Provisions must be prudent rather than a best estimate of the liability. Most notably, the Technical Provision discount rate is currently based upon UK Government yields plus 0.5% rather than being based on yields of AA corporate bonds. Following the triennial valuation process, a Schedule of Contributions (SoC) must be agreed which sets out the required contribution for current service cost and any contributions from the employer to eliminate a deficit. The most recent valuation, as at 31 March 2017, agreed by the Trustee in December 2017, showed that the UK scheme was estimated to be 112% funded on the Technical Provisions basis. Employer contributions (inclusive of employee contributions paid by a salary sacrifice arrangement) will subsequently be paid at a rate of 27% in 2018/19 and 28.5% in 2020 (2017: 31.6%). The SoC includes an arrangement for a potential increase in contributions during 2021 to 2023 (capped at £48.3m a year) if the Technical Provisions funding position is below 107% at 31 March 2020. As at 31 December 2017 the Technical Provisions funding position was estimated to be 114%.

Sensitivities

The calculations of the defined benefit obligations are sensitive to the assumptions set out above. The following table summarises how the estimated impact of a change in a significant assumption would affect the UK defined benefit surplus at 31 December 2017, while holding all other assumptions constant. This sensitivity analysis may not be representative of the actual change in the defined benefit obligation as it is unlikely that the change in assumptions would occur in isolation of one another as some of the assumptions may be correlated.

For the most significant funded schemes, the investment strategies hedge the risks from interest rates and inflation measured on a proxy solvency basis. For the UK scheme, the interest rate and inflation hedging is currently based on UK Government bond yields without any adjustment for any credit spread. The longevity risk of approximately two thirds of UK pensioner liabilities is also hedged. Where appropriate, the table also includes the corresponding movement in the value of the plan assets.

		2017 £m	2016 £m
Reduction in the discount rate of 0.25% [1]	Obligation	**(590)**	(625)
	Plan assets (LDI portfolio)	**675**	630
Increase in inflation of 0.25% [1]	Obligation	**(310)**	(320)
	Plan assets (LDI portfolio)	**291**	272
Real increase in salaries of 0.25%	Obligations	**(105)**	(115)
One year increase in life expectancy	Obligations	**(545)**	(415)

[1] The differences between the sensitivities on obligations and plan assets arise largely due to differences in the methods used to value the obligations for accounting purposes and the adopted proxy solvency basis.

20 Share capital

	Non-equity		Equity	
	Special Share of £1	Nominal value £m	Ordinary shares of 20p each Millions	Nominal value £m
Issued and fully paid				
At 1 January 2016 and 1 January 2017	1	–	1,838	367
Shares issued to share trust	**–**	**–**	**2**	**1**
At 31 December 2017	**1**	**–**	**1,840**	**368**

The rights attaching to each class of share are set out on page 198.

In accordance with IAS 32 *Financial Instruments: Presentation*, the Company's non-cumulative redeemable preference shares (C Shares) are classified as financial liabilities. Accordingly, movements in C Shares are included in note 17.

21 Share-based payments

Effect of share-based payment transactions on the Group's results and financial position

	2017 £m	2016 £m
Total expense recognised for equity-settled share-based payments transactions	31	34
Total expense recognised for cash-settled share-based payments transactions	3	1
Share-based payments recognised in the consolidated income statement	34	35
Liability for cash-settled share-based payment transactions	3	1

A description of the share-based payment plans is included in the Directors' remuneration report on pages 87 to 90.

Movements in the Group's share-based payment plans during the year

	Sharesave		PSP/LTIP	APRA
	Number Millions	Weighted average exercise price Pence	Number Millions	Number Millions
Outstanding at 1 January 2016	23.2	677	8.7	0.9
Granted	–	–	7.3	–
Forfeited	(1.7)	752	(3.4)	–
Exercised	(0.1)	538	(1.0)	(0.9)
Outstanding at 1 January 2017	**21.4**	**672**	**11.6**	**–**
Granted	**14.0**	**758**	**5.8**	**0.2**
Forfeited	**(3.3)**	**886**	**(3.4)**	**–**
Exercised	**(4.6)**	**527**	**(1.0)**	**–**
Outstanding 31 December 2017	**27.5**	**714**	**13.0**	**0.2**
Exercisable at 31 December 2017	**–**	**–**	**–**	**–**
Exercisable at 31 December 2016	–	–	–	–

The weighted average share price at the date share options were exercised was **756p** (2016: 711p). The closing price at 31 December 2017 was **847p** (2016: 668p).

Fair values of share-based payment plans

The weighted average fair value per share of equity-settled share-based payment plans granted during the year, estimated at the date of grant, are as follows:

	2017	2016
PSP – 25% TSR uplift (CEO)	n/a	714p
PSP – 30% TSR uplift (Board)	n/a	731p
PSP – 50% TSR uplift (ELT)	n/a	795p
LTIP	739p	613p
PSP (CFO)	882p	n/a
LTIP (ELT and Board)	714p	n/a
Sharesave – three-year grant	244p	n/a
Sharesave – five-year grant	260p	n/a
APRA	773p	n/a

PSP/LTIP

The fair value of shares awarded are calculated using a pricing model that takes account of the non-entitlement to dividends (or equivalent) during the vesting period and the market-based performance condition based on expectations about volatility and the correlation of share price returns in the group of FTSE 100 companies and which incorporates into the valuation the interdependency between share price performance and TSR vesting. This adjustment increases the fair value of the award relative to the share price at the date of grant.

Sharesave

The fair value of the options granted under the Sharesave plan is calculated using a binomial pricing model that assumes that participants will exercise their options at the beginning of the six-month window if the share price is greater than the exercise price. Otherwise it assumes that options are held until the expiration of their contractual term. This results in an expected life that falls somewhere between the start and end of the exercise window.

APRA

The fair value of shares awarded under APRA is calculated as the share price on the date of the award, excluding expected dividends (or equivalent).

22 Leases

Operating leases

Leases as lessee

	2017 £m	2016 [1] £m
Non-cancellable operating lease rentals are payable as follows:		
Within one year	281	240
Between one and five years	849	706
After five years	741	582
	1,871	1,528

[1] Non-cancellable operating lease rentals payable at 31 December 2016 were previously disclosed as £1,217m with changes made to correct the exchange rate applied to foreign currency leases and to include leases erroneously omitted, which have been identified during the IFRS 16 transition programme.

- Operating lease rental obligations at 31 December 2017 primarily relate to either aero engines (£1,143m) that are used to support customer's aircraft fleets or to land and buildings (£630m) used for production, administration or training purposes.
- Both classes of asset contain some contracts where payments are linked to an index such as LIBOR.
- Operating leases for aero engines typically contain no specific contractual right to renewal. Certain building operating leases have renewal options with an assessment of the appropriate lease term having being made at inception of each lease.
- Renewal dates for the most significant property leases fall between 2022 and 2025.

During the year **£277m** was recognised as an expense in the income statement in respect of operating leases (2016: £224m).

Leases as lessor

	2017 £m	2016 £m
Rentals received – credited within revenue from aftermarket services	53	35
Non-cancellable operating lease rentals are receivable as follows:		
Within one year	14	11
Between one and five years	46	35
After five years	32	27
	92	73

The Group acts as a lessor for both land and buildings and aero engines.

- Sublease payments of **nil** (2016: £1m) and sublease receipts of **£36m** (2016: £35m) were recognised in the income statement in the year.
- The total future minimum sublease payments expected to be made are **£1m** (2016: £2m) and sublease receipts expected to be received are **£51m** (2016: £49m).

Finance leases

Finance lease liabilities are payable as follows:

	2017			2016		
	Payments £m	Interest £m	Principal £m	Payments £m	Interest £m	Principal £m
Within one year	28	5	23	6	3	3
Between one and five years	94	18	76	29	11	18
After five years	42	4	38	54	8	46
	164	27	137	89	22	67

23 Contingent liabilities

Contingent liabilities in respect of customer financing commitments are described in note 18.

In January 2017, after full cooperation, the Company concluded deferred prosecution agreements with the SFO and the US Department of Justice and a leniency agreement with the MPF, the Brazilian federal prosecutors. Prosecutions of individuals may follow and other investigations or enforcement action may be taken by other authorities. In addition, we could still be affected by actions from customers and customers' financiers. The Directors are not currently aware of any matters that are likely to lead to a financial loss, but cannot anticipate all the possible actions that may be taken or their potential consequences.

Contingent liabilities exist in respect of guarantees provided by the Group in the ordinary course of business for product delivery, performance and reliability. The Group has, in the normal course of business, entered into arrangements in respect of export finance, performance bonds, countertrade obligations and minor miscellaneous items. Various Group undertakings are parties to legal actions and claims which arise in the ordinary course of business, some of which are for substantial amounts. As a consequence of the insolvency of an insurer as previously reported, the Group is no longer fully insured against known and potential claims from employees who worked for certain of the Group's UK based businesses for a period prior to the acquisition of those businesses by the Group. While the outcome of some of these matters cannot precisely be foreseen, the Directors do not expect any of these arrangements, legal actions or claims, after allowing for provisions already made, to result in significant loss to the Group.

The Group's share of equity accounted entities' contingent liabilities is **nil** (2016: £12m).

24 Related party transactions

	2017 £m	2016 £m
Sales of goods and services to joint ventures and associates	2,469	2,022
Purchases of goods and services from joint ventures and associates	(2,224)	(1,881)
Operating lease payments to joint ventures and associates	(127)	(101)
Guarantees of joint ventures' and associates' borrowings	5	5
Dividends received from joint ventures and associates	79	74
RRSA receipts from joint ventures and associates	–	22
Other income received from joint ventures and associates	2	2

Included in sales of goods and services to joint ventures and associates are sales of spare engines amounting to **£418m** (2016: £356m). Profit recognised in the year on such sales amounted to **£75m** (2016: £119m), including profit on current year sales and recognition of profit deferred on sales in previous years. On an underlying basis (at actual achieved rates on settled derivative transactions), the amounts were **£67m** (2016: £97m).

The aggregated balances with joint ventures are shown in notes 13 and 16. Transactions with Group pension schemes are shown in note 19.

In the course of normal operations, related party transactions entered into by the Group have been contracted on an arms-length basis.

Key management personnel are deemed to be the Directors (pages 66 to 68) and the members of the ELT (described on page 69). Remuneration for key management personnel is shown below:

	2017 £m	2016 £m
Salaries and short-term benefits	16	13
Post-retirement schemes	–	–
Share-based payments	7	1
	23	14

More detailed information regarding the Directors' remuneration, shareholdings, pension entitlements, share options and other long-term incentive plans is shown in the Directors' Remuneration Report on pages 87 to 90. The charge for share-based payments above is based on when the award is charged to the income statement in accordance with IFRS 2 *Share-Based Payments*, rather than when the shares vest, which is the basis used in the Directors' Remuneration Report.

25 Acquisitions

Acquisitions

On 19 December 2017, the Group completed the acquisition of the 53.1% of the shares of Industria de Turbo Propulsores SA (ITP Aero) owned by SENER Grupo de Ingenieria SA (SENER) which it did not already own.

The consideration of €718m is payable in eight quarterly instalments, commencing on 15 January 2018. At the Group's election, each instalment may be settled in either cash or Rolls-Royce Holdings plc shares. If the consideration is in shares, a 3% premium is applied. Interest is accrued on the outstanding balance based on LIBOR + 1.5%.

The fair value of the previous joint venture investment in ITP Aero of £204m was re-measured using a discounted cash flow methodology using judgement in estimating future cash flows, assessing the discount rate and establishing a non-controlling interest discount. This gave rise to a gain of £553m.

Given the proximity of the acquisition to the year end, and as permitted by IFRS 3 *Business Combinations*, the fair value of acquired identifiable assets and liabilities have been presented on a provisional basis. Fair values were determined on the basis of an initial assessment performed by an independent professional expert prior to the acquisition date. Measurement techniques and estimation of future cash flows have been used to assess the value of the intangible assets at the date of acquisition. The total fair value of acquired identifiable assets and liabilities is £1,650m of which a significant value was allocated to intangible assets. The valuation indicated a bargain purchase of £245m, which has been recognised in the income statement.

The acquisition of the controlling interest in ITP Aero on 19 December 2017 did not have a significant impact on the Group's underlying results for the year.

Recognised amounts of identifiable assets acquired and liabilities assumed

	£m
Intangible assets	1,417
Property, plant and equipment	268
Deferred tax assets	148
Inventory	316
Trade and other receivables	497
Taxation recoverable	2
Cash and cash equivalents	263
Trade and other payables	(625)
Borrowings	(34)
Other financial assets and liabilities	(148)
Deferred tax liability	(386)
Provisions	(68)
Total identifiable assets and liabilities	1,650
Total consideration	(1,045)
Bargain purchase gain arising	245
Consideration satisfied by:	
Deferred consideration to be paid in cash or shares	648
Existing shareholding	757
	1,405
Net cash outflow arising on acquisition:	
Cash consideration	–
Less: cash and cash equivalents acquired	(263)
Cash inflow per cash flow statement	(263)
Identifiable intangible assets comprise:	
Technology, patents and licences	245
Customer relationships	833
Trademark	44
In-process development	91
Other	204
	1,417

26 Derivation of summary funds flow statement

	2017		2016		
	£m	£m	£m	£m	Source
*** Underlying profit before tax (PBT) – page 169**		1,071		813	
Depreciation and impairment of property, plant and equipment	450		426		Cash flow statement (CFS)
Amortisation of intangible assets	430		628		CFS
Impairment of goodwill	–		(219)		Reversal of adjustment in underlying PBT
Impairment of property, plant and equipment	(6)		–		Reversal of adjustment in underlying PBT
Acquisition accounting	(129)		(115)		Reversal of adjustment in underlying PBT
*** Depreciation and amortisation**		745		720	
Increase in inventories	(235)		(161)		CFS
Non-underlying impairment	(6)		–		Reversal of underlying impairment (included in £12m impairment of assets)
Decrease in trade and other receivables/payables	946		288		CFS
Realised losses on settled foreign exchange derivatives in financing	(173)		(162)		Reported to underlying adjustment (note 2)
Revaluation of trading assets	(6)		67		Reversal of adjustment in underlying PBT
*** Movement on net working capital**		526		32	
Additions of intangible assets	(973)		(631)		CFS
Purchases of property, plant and equipment	(773)		(585)		CFS
Government grants received	14		15		CFS
*** Expenditure on PP&E and intangible assets**		(1,732)		(1,201)	
Realised losses on hedging instruments	475		426		Reversal of adjustment in underlying PBT
Net unrealised fair value to changes to derivatives	24		–		Reversal of adjustment in underlying PBT
Foreign exchange on contract accounting	(124)		77		Reversal of adjustment in underlying PBT
Exceptional restructuring	(104)		(129)		Reversal of adjustment in underlying PBT
Other	(3)		(1)		Reversal of adjustment in underlying PBT
Underlying financing	104		102		Reversal of charge in underlying PBT
Loss on disposal of property, plant and equipment	11		5		CFS
Joint ventures	(52)		(43)		Joint ventures dividends less share of results – CFS
Increase in provisions	58		44		CFS
Cash flows on other financial assets and liabilities included in underlying operating profit	(448)		(446)		Reported to underlying adjustment (note 2)
Share-based payments	34		35		CFS
Additions of unlisted investments	(4)		–		CFS
Disposal of intangible assets	7		8		CFS
Disposal of property, plant and equipment	4		8		CFS
Investments in joint ventures and associates	(48)		(30)		CFS
Net interest	(53)		(72)		Interest received and paid – CFS
Net funds of JVs reclassified to joint operations	–		(4)		Net cash and borrowings reclassified – CFS
Issue of ordinary shares	21		1		CFS
Purchase of ordinary shares for share schemes	(24)		(21)		CFS
*** Other**		(162)		(40)	
*** Trading cash flow**		448		324	
Net defined benefit plans – underlying operating charge	240		204		CFS
Cash funding of defined benefit plans	(249)		(271)		CFS
*** Contributions to defined benefit schemes in excess of underlying PBT charge**		(9)		(67)	
*** Tax**		(180)		(157)	CFS
*** Free cash flow**		259		100	
*** Shareholder payments**		(214)		(301)	Redemption of C Shares – CFS
*** Payments of penalties to investigating authorities**		(286)		–	
*** Acquisition of ITP Aero**		229		–	
*** Other acquisitions and disposals**		(17)		(153)	CFS
Other		8		–	
*** Foreign exchange**		(59)		240	CFS
*** Change in net funds**		(80)		(114)	

This table shows the derivation of the summary funds flow statement (lines marked *) on page 51 from the cash flow statement on page 119.

26 Derivation of summary funds flow statement continued

Free cash flow is a measure of financial performance of the business's cash flow to see what is available for distribution among those stakeholders funding the business (including debt holders and shareholders). Free cash flow is calculated as trading cash flow less recurring tax and post-employment benefit expenses excluding capital expenditures, payments made to shareholders, amounts spent (or received) on business acquisitions and foreign exchange changes on net funds. The Board considers that free cash flow reflects cash generated from the Group's underlying trading.

	2017		2016		
	£m	£m	£m	£m	Source
Reported operating profit		1,287		44	
Realised losses on hedging instruments	(475)		(426)		Reported to underlying adjustment (note 2)
Net unrealised fair value to changes to derivatives	(24)		–		Reported to underlying adjustment (note 2)
Foreign exchange on contract accounting	124		(77)		Reported to underlying adjustment (note 2)
Revaluation of trading assets and liabilities	6		(67)		Reported to underlying adjustment (note 2)
Effect of acquisition accounting	129		115		Reported to underlying adjustment (note 2)
UK pension restructuring	–		306		Reported to underlying adjustment (note 2)
Impairments	24		219		Reported to underlying adjustment (note 2)
Exceptional restructuring	104		129		Reported to underlying adjustment (note 2)
Accrual for deferred prosecution agreement penalties	–		671		Reported to underlying adjustment (note 2)
Other	–		1		Reported to underlying adjustment (note 2)
Adjustments to reported operating profit		(112)		871	
Underlying profit before financing		1,175		915	
Underlying financing		(104)		(102)	Underlying income statement (note 2)
Underlying profit before tax		**1,071**		**813**	

The table below shows a reconciliation of free cash flow to the change in cash and cash equivalents presented in the Consolidated Cash Flow Statement.

	2017		2016	
	£m	£m	£m	£m
Change in cash and cash equivalents		231		(691)
Returns to shareholders		214		301
Net cash flow from changes in borrowings and finance leases		(200)		345
Increase/decrease in short-term investments		–		1
Acquisition of business	(263)		6	
Consolidation of previously unconsolidated subsidiary	(1)		–	
Increase in share in joint ventures	–		154	
Debt of joint ventures reclassified as joint operations	–		(9)	
Disposal of other businesses	–		(7)	
Changes in group structure		(264)		144
Payment of deferred prosecution agreement penalties		286		–
Other		(8)		–
Free cash flow		259		100
Exclude cash outflow of ITP Aero		14		–
Free cash flow excluding ITP Aero		273		100

27 Impact of IFRS 15

The segmental analysis shown in note 2 would have been as follows if prepared under the IFRS 15 policies set out in note 1:

	Civil Aerospace £m	Defence Aerospace £m	Power Systems £m	Marine £m	Nuclear £m	Inter-segment £m	Total reportable segments £m
Year ended 31 December 2017							
Underlying revenue from sale of original equipment	2,862	911	1,825	539	377	(27)	6,487
Underlying revenue from aftermarket services	3,671	1,287	896	476	430	(37)	6,723
Total underlying revenue at 2016 exchange rates	6,533	2,198	2,721	1,015	807	(64)	13,210
Translation to 2017 exchange rates	80	84	198	60	11	(5)	428
Total underlying revenue at 2017 exchange rates	6,613	2,282	2,919	1,075	818	(69)	13,638
Gross profit	350	551	786	213	131	–	2,031
Commercial and administrative costs	(370)	(126)	(310)	(193)	(71)	–	(1,070)
Research and development costs	(442)	(77)	(165)	(44)	(23)	–	(751)
Share of results of joint ventures and associates	109	7	(3)	–	–	–	113
Underlying operating profit/(loss) at 2016 exchange rates	(353)	355	308	(24)	37	–	323
Translation to 2017 exchange rates	23	15	23	(2)	1	–	60
Underlying operating profit/(loss) at 2017 exchange rates	(330)	370	331	(26)	38	–	383
2017 accounting policies							
Total underlying revenue	*8,023*	*2,275*	*2,923*	*1,077*	*818*	*(70)*	*15,046*
Underlying operating profit	*520*	*374*	*330*	*(25)*	*38*	*–*	*1,237*

Reconciliation to reported results

	Total reportable segments £m	Other businesses and corporate £m	Total underlying £m	Underlying adjustments and foreign exchange £m	Group at actual exchange rates £m	*Group at actual exchange rates - 2017 accounting policies £m*
Year ended 31 December 2017						
Revenue from sale of original equipment	6,487	22	6,509	771	7,280	*8,090*
Revenue from aftermarket services	6,723	20	6,743	775	7,518	*8,217*
Total revenue at 2016 exchange rates	13,210	42	13,252	1,546	14,798	*16,307*
Translation to 2017 exchange rates	428	2	430	(430)	–	*–*
Total revenue at 2017 exchange rates	13,638	44	13,682	1,116	14,798	*16,307*
Gross profit	2,031	4	2,035	244	2,279	*3,173*
Commercial and administrative costs	(1,070)	(54)	(1,124)	(98)	(1,222)	*(1,222)*
Research and development costs	(751)	–	(751)	(83)	(834)	*(795)*
Share of results of joint ventures and associates	113	(10)	103	29	132	*131*
Operating profit/(loss) at 2016 exchange rates	323	(60)	263	92	355	*1,287*
Translation to 2017 exchange rates	60	(2)	58	(58)	–	*–*
Operating profit/(loss) at 2017 exchange rates	383	(62)	321	34	355	*1,287*
Gains arising on the acquisition of ITP Aero	–	–	–	798	798	*798*
Profit/(loss) before financing and taxation	383	(62)	321	832	1,153	*2,085*
Net financing		(112)	(112)	2,966	2,854	*2,812*
Profit/(loss) before taxation		(174)	209	3,798	4,007	*4,897*
Taxation		(166)	(166)	(381)	(547)	*(689)*
Profit for the year			43	3,417	3,460	*4,208*

27 Impact of IFRS 15 continued

Underlying adjustments

	2017			
	Revenue £m	Profit before financing £m	Net financing £m	Taxation £m
Underlying performance	13,682	321	(112)	(166)
Revenue recognised at exchange rate on date of transaction	1,116	–	–	–
Realised (gains)/losses on settled derivative contracts	–	453	195	(111)
Net unrealised fair value changes to derivative contracts	–	24	2,648	(463)
Effect of currency on contract accounting	–	(180)	–	21
Revaluation of trading assets and liabilities	–	(6)	113	(12)
Financial RRSAs – foreign exchange differences and changes in forecast payments	–	–	11	(3)
Effect of acquisition accounting	–	(129)	–	35
Impairment of assets	–	(12)	–	–
Net post-retirement scheme financing	–	–	1	(1)
Exceptional restructuring	–	(104)	–	31
Gains arising on the acquisition of ITP Aero	–	798	–	–
Consolidation of previously non-consolidated subsidiary	–	(12)	–	–
Other	–	–	(2)	9
Recognition of advance corporation tax	–	–	–	163
Reduction in corporate tax rates	–	–	–	(50)
Total underlying adjustments	1,116	832	2,966	(381)
Reported per consolidated income statement	14,798	1,153	2,854	(547)

As processes and procedures are further embedded during 2018, it is possible that some changes to the information above may result.

Company Balance Sheet

At 31 December 2017

	Notes	2017 £m	2016 £m
Assets			
Non-current assets			
Investments – subsidiary undertakings	2	12,076	12,046
Current assets			
Trade and other receivables		371	–
Cash and cash equivalents		2	–
		373	–
TOTAL ASSETS		12,449	12,046
Liabilities			
Current liabilities			
Other financial liabilities	3	(28)	(28)
Trade and other payables		(1,794)	(1,204)
TOTAL LIABILITIES		(1,822)	(1,232)
NET ASSETS		10,627	10,814
Equity			
Called-up share capital	4	368	367
Share premium account		195	181
Merger reserve		6,843	7,058
Capital redemption reserve		2,216	2,001
Other reserve		186	156
Retained earnings		819	1,051
TOTAL EQUITY		10,627	10,814

The Financial Statements on pages 172 to 174 were approved by the Board on 6 March 2018 and signed on its behalf by:

Warren East
Chief Executive

Stephen Daintith
Chief Financial Officer

Company's registered number: 7524813

Company Statement of Changes in Equity

For the year ended 31 December 2017

	Attributable to ordinary shareholders						
	Share capital £m	Share premium £m	Merger reserve £m	Capital redemption reserve £m	Other reserve [1] £m	Retained earnings £m	Total equity £m
At 1 January 2017	367	181	7,058	2,001	156	1,051	10,814
Profit for the year	–	–	–	–	–	–	–
Shares issued to share trust	1	14	–	–	–	–	15
Issue of C Shares	–	–	(215)	–	–	–	(215)
Redemption of C Shares	–	–	–	215	–	(215)	–
Share-based payments – direct to equity	–	–	–	–	30	(17)	13
At 31 December 2017	368	195	6,843	2,216	186	819	10,627

[1] The 'Other reserve' represents the value of share-based payments in respect of employees of subsidiary undertakings for which payment has not been received.

Notes to the Company Financial Statements

1 Accounting policies

Basis of accounting
These Financial Statements have been prepared in accordance with Financial Reporting Standard 101 *Reduced Disclosure Framework* (FRS 101) on the historical cost basis.

In preparing these Financial Statements, the Company applies the recognition, measurement and disclosure requirements of International Financial Reporting Standards as adopted by the EU (Adopted IFRS), but makes amendments where necessary in order to comply with the Companies Act 2006.

In these financial statements the Company has applied the exemptions available under FRS 101 in respect of the following disclosures:

- A Cash Flow Statement and related notes.
- Comparative period reconciliations for share capital.
- The effects of new, but not yet effective accounting standards.
- The requirements of IAS 24 *Related Party Transactions* and has, therefore, not disclosed transactions between the Company and its wholly-owned subsidiaries.

The accounting policies set out below have, unless otherwise stated, been applied consistently to all periods presented in these Financial Statements.

There were no changes to accounting standards that had a material impact on the 2017 Financial Statements.

As permitted by Section 408 of the Companies Act 2006, a separate income statement for the Company has not been included in these Financial Statements. As permitted by the audit fee disclosure regulations, disclosure of non-audit fees information is not included in respect of the Company.

Investments in subsidiary undertakings
Investments in subsidiary undertakings are reported at cost less any amounts written off.

Share-based payments
As described in the Directors' remuneration report on pages 89 to 90, the Company grants awards of its own shares to employees of its subsidiary undertakings (see note 21 of the Consolidated Financial Statements). The costs of share-based payments in respect of these awards are accounted for, by the Company, as an additional investment in its subsidiary undertakings. The costs are determined in accordance with IFRS 2 *Share-based Payment*. Any payments made by the subsidiary undertakings in respect of these arrangements are treated as a return of this investment.

Financial instruments
In accordance with IAS 32 *Financial Instruments: Presentation*, the Company's C Shares are classified as financial liabilities and held at amortised cost from the date of issue until redeemed.

2 Investments – subsidiary undertakings

	£m
Cost:	
At 1 January 2017	**12,046**
Cost of share-based payments in respect of employees of subsidiary undertakings less receipts from subsidiaries in respect of those payments	30
At 31 December 2017	**12,076**

The subsidiary and joint venture undertakings are listed on pages 175 to 182.

3 Financial liabilities

C Shares
Movements during the year of issued and fully paid C Shares were as follows:

	C Shares of 0.1p millions	Nominal value £m
At 1 January 2017	**28,125**	**28**
Shares issued	215,235	215
Shares redeemed	(214,931)	(215)
At 31 December 2017	**28,429**	**28**

The rights attaching to C Shares are set out on page 198.

4 Share capital

	Non-equity			Equity	
	Special Share of £1	Preference shares of £1 each	Nominal value £m	Ordinary shares of 20p each Millions	Nominal value £m
Issued and fully paid					
At 1 January 2017	1	–	–	1,838	367
Shares issued to share trust	–	–	–	2	1
At 31 December 2017	1	–	–	1,840	368

The rights attaching to each class of share are set out on page 198.

In accordance with IAS 32, the Company's non-cumulative redeemable preference shares (C Shares) are classified as financial liabilities. Accordingly, movements in C Shares are included in note 3.

5 Contingent liabilities

Where the Company enters into financial guarantee contracts to guarantee the indebtedness of other companies within its group, the Company considers these to be insurance arrangements, and accounts for them as such. In this respect, the Company treats the guarantee contract as a contingent liability until such time as it becomes probable that the Company will be required to make a payment under the guarantee.

At 31 December 2017, these guarantees amounted to **£2,930m** (2016: £2,735m).

6 Other information

Emoluments of directors

The remuneration of the Directors of the Company is shown in the Directors' remuneration report on pages 87 to 90.

Employees

The Company had no employees in 2017.

Share-based payments

Shares in the Company have been granted to employees of the Group as part of share-based payment plans, and are charged in the employing company.

Subsidiaries

As at 31 December 2017, the companies listed below and on the following pages are indirectly held by Rolls-Royce Holdings plc except Rolls-Royce Group plc which is 100% directly owned by Rolls-Royce Holdings plc. The financial year end of each company is 31 December unless otherwise indicated.

Company name	Address	Class of shares	% of class held
A.F.C. Wultex Limited *	Derby [1]	Ordinary	90
A.P.E. - Allen Gears Limited *	Derby [1]	Ordinary	100
Aeromaritime America, Inc.	M&H Agent Services, Inc., 1850 North Central Avenue, Suite 2100, Phoenix, Arizona 85004, United States	Common	100
Aeromaritime Mediterranean Limited	7 Industrial Estate, Hal Far, Birzebbuga, BBG 3000, Malta	Ordinary	100
Allen Power Engineering Limited *	Derby [1]	Ordinary	100
Amalgamated Power Engineering Limited *	Derby [1]	Deferred Ordinary	100 100
AMTEC Corporation	Corpdirect Agents, Inc., 160 Greentree Drive, Suite 101, Dover, Delaware 19904, United States	Common	100
AMTEC On Wing Support, LLC	8081 NW 31st Street, Miami, Florida 33152, United States	Partnership (no equity)	100
Bergen Engines AS	Hordvikneset 125, N-5108, Hordvik, Bergen 1201, Norway	Ordinary	100
Bergen Engines Bangladesh Private Limited	Green Granduer, 6th Floor, Plot no.58 E, Kamal Ataturk Avenue Banani, C/A Dhaka, 1213, Bangladesh	Ordinary	100
Bergen Engines BV	Werfdijk 2, 3195HV Pernis, Rotterdam, Netherlands	Ordinary	100
Bergen Engines Denmark A/S	Værftsvej 23, DK-9000 Ålborg, Denmark	Ordinary	100
Bergen Engines India Private Limited [3]	52-b, 2nd Floor, Okhla Industrial Estate, Phase III, New Delhi 110020, India	Ordinary	100
Bergen Engines Limited	Derby [1]	Ordinary	100
Bergen Engines PropertyCo AS	Hordvikneset 125, N-5108, Hordvik, Bergen 1201, Norway	Ordinary	100
Bergen Engines S.L.	Calle Dinamarca s/n (esquina Calle Alemania), Poligono Industrial de Constanti, 43120 Constanti, Tarragona, Spain	Social Participation	100
Bergen Engines S.r.l.	Via Castel Morrone 13, 16161, Genoa, Italy	Social Capital	100
Bristol Siddeley Engines Limited *	Derby [1]	Ordinary	100
Brown Brothers & Company Limited *	Taxiway, Hillend Industrial Estate, Dalgety Bay, Dunfermline, Fife, KY11 9JT, Scotland	Ordinary	100
C.A. Parsons & Company Limited *	Derby [1]	Ordinary	100
Celsius Amtec Corporation	Corpdirect Agents, Inc., 1200 South Pine Island Road, Miami, Florida 33324, United States	Common	100
Celsius SPV I, Inc.	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, Delaware 19801, United States	Common	100
Celsius SPV II, Inc.	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, Delaware 19801, United States	Common	100
Composite Technology and Applications Limited	Derby [1]	Ordinary	100
Data Systems & Solutions, LLC	Wilmington [2]	Partnership (no equity)	100
Deeside Titanium Limited *	Derby [1]	Ordinary	82.5
Derby Cogeneration Limited *	Derby [1]	Ordinary	100
Derby Specialist Fabrications Limited *	Derby [1]	Ordinary	100
Europea Microfusioni Aerospaziali S.p.A.	Zona Industriale AS1, 83040 Morra de Sanctis, Avellino, Italy	Ordinary	100
Fluid Mechanics LLC	Wilmington [2]	Partnership (no equity)	100
Heartlands Power Limited *	Derby [1]	Ordinary	100
Heaton Power Limited *	Derby [1]	Ordinary	100
Industria de Tuberías Aeronáuticas México S.A. de C.V.	Acceso IV, No.6B, Zona Industrial Benito Juárez, Querétaro, 76120, Mexico	Class A	100
Industria de Tuberías Aeronáuticas S.A.U.	Pabellón Industrial, Torrelarrgoiti, Parcela 5H, Naves 7 a 10, Zamudio, Spain	Ordinary	100
Industria de Turbo Propulsores S.A.	Parque Technológico Edificio 300, 48170 Zamudio, Vizcaya, Spain	Ordinary	100
ITP Engines UK Limited	The Whittle Estate, Cambridge Road, Whetstone, Leicester, LE8 6LH, England	Ordinary	100
ITP Externals India Private Ltd	Plot 60/A, IDA Gandhi Nagar, Hyderabad, 500037, India	Ordinary	100
ITP Externals S.L.U.	Pabellón Industrial, Polígono Ugaldeguren I, PIIIA, Pab 1-2 Zamudio, Spain	Ordinary	100

* Dormant entity.
[1] Moor Lane, Derby, DE24 8BJ, England.
[2] Corporation Service Company, 251 Little Falls Drive, Wilmington, Delaware 19808, United States.
[3] Reporting year end is 31 March.

Company name	Address	Class of shares	% of class held
ITP Ingeniería y Fabricación S.A. de C.V.	Acceso IV, No.6D, Zona Industrial Benito Juárez, Querétaro, 76120, Mexico	Class A Class B	100 100
ITP México S.A. de C.V.	Acceso IV, No.6, Zona Industrial Benito Juárez, Querétaro, 76120, Mexico	Class A Class B	100 100
ITP México Fabricación S.A. de C.V.	Acceso IV, No.6, Zona Industrial Benito Juárez, Querétaro, 76120, Mexico	Class A	100
ITP Next Generation Turbines S.L.U.	Parque Technológico Edificio 300, 48170 Zamudio, Vizcaya, Spain	Ordinary	100
John Thompson Cochran Limited *	Taxiway, Hillend Industrial Estate, Dalgety Bay, Dunfermline, Fife, KY11 9JT, Scotland	6% Cumulative Preference Ordinary	100 100
John Thompson Limited *	Derby [1]	Ordinary	100
Kamewa AB *	Box 1010, S-68129, Kristinehamn, Sweden	Ordinary	100
Kamewa do Brazil Equipmentos Maritimos Limitada	401 Rua Visconde de Pitaja 433, Rio de Janeiro, Brazil	Quotas	100
Kamewa Holding AB *	Box 1010, S-68129, Kristinehamn, Sweden	Ordinary	100
Karl Maybach-Hilfe GmbH	Maybachplatz 1, 88045, Friedrichshafen, Germany	Capital Stock	100
L'Orange Fuel Injection (Ningbo) Co, Limited	#3 Hall, No.55 South Qihang Road, Yinzhou Economic Development Zone, Ningbo City, 315145, China	Capital Stock	100
L'Orange Fuel Injection Trading (Suzhou) Co. Limited	Suite 306, 23-B Times Square, Huachi Street, SIP Suzhou 215021, China	Capital Stock	100
L'Orange GmbH	Porschestrasse 8, 70435, Stuttgart, Germany	Capital Stock	100
L'Orange Unterstützungskasse GmbH	Rudolph-L'Orange-Strasse 1, 72293 Glatten, Germany	Capital Stock	100
MTU Africa (Proprietary) Limited	Corner Marconi Road and 3rd Street, Montague Gardens, Western Cape, 7441, South Africa	Capital Stock	100
MTU America Inc.	Wilmington [2]	Ordinary	100
MTU Asia PTE Limited	10 Tukang Innovation Drive, Singapore 618302	Ordinary	100
MTU Benelux B.V.	Merwedestraat 86, 3313 CS, Dordrecht, Netherlands	Ordinary	100
MTU China Company Limited	Room 1801-1803 18/F Ascendas Plaza, No.333 Tian Qiao Road, Xuhai Distrcit, Shanghai, 200030, China	Ordinary	100
MTU do Brasil Limitada	Via Anhanguera, KM 29203, 05276-000 Sao Paulo - SP, Brazil	Ordinary	100
MTU Engineering (Suzhou) Company Limited	9 Long Yun Road, Suzhou Industrial Park, Suzhou 215024, Jiang Su, China	Ordinary	100
MTU France S.A.S.	8/10 rue Rosa Luxembourg-Parc des Bellevues, Immeuble Colorado 95610 Erangy-sur-Oise, France	Ordinary	100
MTU Friedrichshafen GmbH	Maybachplatz 1, 88045, Friedrichshafen, Germany	Capital Stock	100
MTU Hong Kong Limited	Room 1006, 10/F, Hang Seng Tsimshatsui Building, 18 Carnarvon Road, Tsimshatsui, Kowloon, Hong Kong	Ordinary	100
MTU Ibérica Propulsión y Energia S.L.	Calle Copérnico 26-28, 28823 Coslada, Madrid, Spain	Ordinary	100
MTU India Private Limited [3]	HM Geneva House, Unit No.303, 3rd Floor, No.14 Cunningham Road, Bangalore, KA 560052, India	Ordinary	100
MTU Israel Limited	4 Ha'Alon Street, South Building, Third Floor, 4059300 Kfar Neter, Israel	Ordinary	100
MTU Italia S.r.l.	Via Aurelia Nord, 328, 19021 Arcola (SP), Italy	Capital Stock	100
MTU Japan Co. Limited	Resorttrust Building 4-14-3, Nishitenma Kita-ku, Osaka, Japan	Ordinary	100
MTU Korea Limited	23rd Floor, Olive Tower, 41 Sejongdaero 9 gil, Junggu, 100-737 Seoul, Republic of Korea	Ordinary	100
MTU Middle East FZE	S3B5SR06, Jebel Ali Free Zone, P.O. Box 61141, Dubai, United Arab Emirates	Ordinary	100
MTU Motor Türbin Sanayi ve Ticaret. A.Ş.	Hatira Sokak, No. 5, Ömerli Mahellesi, 34555 Arnavutköy, Istanbul, Turkey	Ordinary	100
MTU Onsite Energy GmbH	Dasinger Strasse 11, 86165, Augsburg, Germany	Capital Stock	100
MTU Onsite Energy Systems GmbH	Rotthofer Strasse 8, 94099 Ruhstorf a.d. Rott, Germany	Capital Stock	100
MTU Polska Sp. z o.o.	Ul. Śląska, Nr 9. Raum, Ort: Stargard Szczeciński, Plz: 73-110, Poland	Ordinary	100
MTU Reman Technologies GmbH	Friedrich-List-Strasse 8, 39122 Magdeburg, Germany	Capital Stock	100
MTU Rus Limited Liability Company	Shabolovka Street 2, 119049, Moscow, Russian Federation	Ordinary	100

* Dormant entity.
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[3] Reporting year end is 31 March.

Company name	Address	Class of shares	% of class held
MTU South Africa (Proprietary) Limited	Corner Marconi Road and 3rd Street, Montague Gardens, Western Cape, 7441, South Africa	Ordinary	100
MTU UK Limited	Derby [1]	Ordinary	100
Navis Consult d.o.o.	Ul. Bartola Kašića 5/4, HR-51000, Rijeka, Croatia	Ordinary	75
NEI International Combustion Limited *	Derby [1]	Ordinary	100
NEI Mining Equipment Limited *	Derby [1]	Ordinary	100
NEI Nuclear Systems Limited *	Derby [1]	Ordinary	100
NEI Overseas Holdings Limited *	Derby [1]	Ordinary	100
NEI Parsons Limited *	Derby [1]	Ordinary	100
NEI Peebles Limited *	Derby [1]	Ordinary	100
NEI Power Projects Limited *	Derby [1]	Ordinary	100
NEI Services Limited *	Derby [1]	Ordinary	100
Nightingale Insurance Limited	Maison Trinity, Trinity Square, St. Peter Port, GY1 4AT, Guernsey	Ordinary	100
PKMJ Technical Services, Inc.	Wilmington [2]	Ordinary	100
Power Jets (Research and Development) Limited *	The Whittle Estate, Cambridge Road, Whetstone, Leicester, LE8 6LH, England	Ordinary	100
Powerfield Limited *	Derby [1]	Ordinary	100
Precision Casting Bilbao S.A.U.	Calle El Barracón 1, Baracaldo, Spain	Ordinary	100
Prokura Diesel Services (Proprietary) Limited *	Corner Marconi Road and 3rd Street, Montague Gardens, Western Cape, 7441, South Africa	Ordinary	100
PT MTU Indonesia	Secure Building Blok B, Jl. Raya Protokol Halim, Perdanakusuma, Jakarta, 13610, Indonesia	Ordinary	100
PT Rolls-Royce	Mid Plaza 2 , Lantai 16 Jl. Jenderal Sudirman 10-11, Jakarta, Pusat, 10220, Indonesia	Ordinary	100
Rallyswift Limited *	Derby [1]	Ordinary	100
Reyrolle Belmos Limited *	Taxiway, Hillend Industrial Estate, Dalgety Bay, Dunfermline, Fife, KY11 9JT, Scotland	Ordinary	100
Rolls-Royce (Ireland) Unlimited Company *	Ulster International Finance, 1st Floor IFSC House, IFSC, Dublin 1, Ireland	Ordinary	100
Rolls-Royce (Thailand) Limited	900, 11th Floor Tonson Tower, Ploenchit Road, Lumpini, Pathumwan, Bangkok, Thailand	Ordinary	100
Rolls-Royce AB	Box 1010, S-68129, Kristinehamn, Sweden	Ordinary	100
Rolls-Royce Aero Engine Services Limited *	Derby [1]	Ordinary	100
Rolls-Royce Asia Limited	G/F, No 1-3 Wing Yip Street, Kwai Chung, New Territories, Hong Kong	Ordinary	100
Rolls-Royce Australia Pty Limited	Suite 102, 2-4 Lyonpark Road, Macquarie Park, NSW 2113, Australia	Ordinary	100
Rolls-Royce Australia Services Pty Limited	Suite 102, 2-4 Lyonpark Road, Macquarie Park, NSW 2113, Australia	Ordinary	100
Rolls-Royce Brasil Limitada	Rua drive Cincinato Braga No. 47, Planalto District, São Bernando do Campo, 09890-900, Brazil	Quotas	100
Rolls-Royce Canada Limited	9500 Côte de Liesse, Lachine, Québec H8T 1A2, Canada	Common Stock	100
Rolls-Royce Civil Nuclear Canada Limited	597 The Queensway, Peterborough Ontario K9J 7J6, Canada	Class A Preferred	100
		Common Shares	100
Rolls-Royce Civil Nuclear S.A.S.	23 chemin du Vieux Chêne, 38240, Meylan, France	Ordinary	100
Rolls-Royce Commercial (Beijing) Co., Limited	305-306 Indigo Building 1, 20 Jiuxianqiao Road, Beijing, 100016, China	Registered Capital	100
Rolls-Royce Commercial Aero Engines Limited *	Derby [1]	Ordinary	100
Rolls-Royce Control Systems Holdings Co	Wilmington [2]	Common Stock	100
Rolls-Royce Controls and Data Services (NZ) Limited	Level 7 Bayleys Building, 36 Brandon Street, Wellington, 6011, New Zealand	Ordinary	100
Rolls-Royce Controls and Data Services (UK) Limited	Derby [1]	Ordinary	100
Rolls-Royce Controls and Data Services, Inc.	Wilmington [2]	Common Stock	100
Rolls-Royce Controls and Data Services Limited	Derby [1]	Ordinary	100

* Dormant entity.
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2 Corporation Service Company, 251 Little Falls Drive, Wilmington, Delaware 19808, United States.
3 Reporting year end is 31 March.

Company name	Address	Class of shares	% of class held
Rolls-Royce Corporation	Wilmington [2]	Common Stock	100
Rolls-Royce Côte d'Ivoire Sarl	7 Boulevard Latrille, Abidjan-Cocody, 25 BP 945, Abidjan 25, Côte d'Ivoire	Ordinary	100
Rolls-Royce Crosspointe LLC	Wilmington [2]	Partnership (no equity)	100
Rolls-Royce de Venezuela S.A. *	Avenida 3E, entre Calles 78 y 79, Torre Empresarial Claret, Piso 10, Oficina 10-3, Sector Valle Frio Maracaibo, Estado Zulia, Venezuela	Registered Shares	100
Rolls-Royce Defense Products and Solutions, Inc.	Wilmington [2]	Common Stock	100
Rolls-Royce Defense Services, Inc.	Wilmington [2]	Common Stock	100
Rolls-Royce Deutschland Ltd & Co KG	Eschenweg 11, 15827 Blankenfelde-Mahlow, Germany	Ordinary	100
Rolls-Royce Energy Angola, Limitada *	Rua Rei Katyavala, Edificio Rei Katyavala, Entrada B, Piso 8, Luanda, Angola	Quota	100
Rolls-Royce Energy Systems Inc.	Wilmington [2]	Common Stock	100
Rolls-Royce Engine Controls Holdings Limited	Derby [1]	Ordinary	100
Rolls-Royce Engine Services Holdings Co.	Wilmington [2]	Common Stock	100
Rolls-Royce Engine Services Limitada Inc. *	Bldg. 06 Berthaphil Compound, Jose Abad Santos Avenue, Clark Special Economic Zone, Clark, Pampanga, Philippines	Capital Stock	100
Rolls-Royce Erste Beteiligungs GmbH	Eschenweg 11, 15827 Blankenfelde-Mahlow, Germany	Capital Stock	100
Rolls-Royce Finance Company Limited	Derby [1]	Deferred Ordinary	100 100
Rolls-Royce Finance Holdings Co.	Wilmington [2]	Common Stock	100
Rolls-Royce Fuel Cell Systems Limited	Derby [1]	Ordinary	100
Rolls-Royce General Partner Limited	Derby [1]	Ordinary	100
Rolls-Royce Group plc	62 Buckingham Gate, London, SW1E 6AT, England	Ordinary	100
Rolls-Royce High Temperature Composites, Inc.	Corporation Service Company, 2710 Gateway Oaks Drive, Suite 150N, Sacramento, California 95833, United States	Ordinary	100
Rolls-Royce Holdings Canada Inc.	9500 Côte de Liesse, Lachine, Québec H8T 1A2, Canada	Common C	100
Rolls-Royce India Limited *[3]	Derby [1]	Ordinary	100
Rolls-Royce India Private Limited [3]	Birla Tower West, 2nd Floor 25, Barakhamba Road, New Delhi, 110001, India	Equity	100
Rolls-Royce Industrial & Marine Power Limited *	Derby [1]	Ordinary	100
Rolls-Royce Industrial Power (India) Limited *[3]	Derby [1]	Ordinary	100
Rolls-Royce Industrial Power (Overseas Projects) Limited *	Derby [1]	Ordinary	100
Rolls-Royce Industrial Power Engineering (Overseas Projects) Limited	Derby [1]	Ordinary	100
Rolls-Royce Industrial Power Investments Limited *	Derby [1]	2.8% cumulative redeemable preference 4.9% cumulative preference Ordinary	100 100 100
Rolls-Royce Industries Limited *	Derby [1]	Ordinary	100
Rolls-Royce International Limited	Derby [1]	Ordinary	100
Rolls-Royce International LLC	Office 41 N, Lit 32-34 Nevsky Prospect, St. Petersburg, 191186, Russia	Ordinary	100
Rolls-Royce International s.r.o.	Pobřežní 620/3, Postal code 186 00, Karlin - Prague 8, Czech Republic	Ordinary	100
Rolls-Royce Italia S.r.l.	Via Castel Morrone 13, 16161, Genoa, Italy	Ordinary	100
Rolls-Royce Japan Co., Limited	31st Floor, Kasumigaseki Building, 3-2-5 Kasumigaseki, Chiyoda-Ku, Tokyo, 100-6031, Japan	Ordinary	100
Rolls-Royce JSF Holdings Inc.	Wilmington [2]	Common Stock	100
Rolls-Royce Korea Limited	197 Noksan SanEop Buk-Ro (Songjeong-dong), Gangseo-gu, Busan 46753, Republic of Korea	Ordinary	100

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[3] Reporting year end is 31 March.

Company name	Address	Class of shares	% of class held
Rolls-Royce Leasing Limited	Derby [1]	Ordinary	100
Rolls-Royce Malaysia Sdn. Bhd.	Suite 13.03, 13th Floor, Menara Tan & Tan, 207 Jalan Tun Razak, 50400 Kuala Lumpur, Malaysia	Ordinary	100
Rolls-Royce Marine A/S	Ostre Havnepromenade 34, 9000, Aalborg, Denmark	Ordinary	100
Rolls-Royce Marine AS	Borgundvegen 340, Ålesund, 6009, Norway	Ordinary	100
Rolls-Royce Marine Benelux BV	Werfdijk 2, 3195 HV Pernis, Rotterdam, Netherlands	Ordinary	100
Rolls-Royce Marine Chile S.A.	Alcantra 200, Office 1303, Las Condes, Santiago, Chile	Ordinary	100
Rolls-Royce Marine Deutschland GmbH	Fährstieg 9, 21107, Hamburg, Germany	Ordinary	100
Rolls-Royce Marine Electrical Systems Limited *	Derby [1]	Ordinary	100
Rolls-Royce Marine España S.A.	Calle Dinamarca s/n (esquina Calle Alemania), Poligono Industrial de Constanti, 43120 Constanti, Tarragona, Spain	Ordinary	100
Rolls-Royce Marine France SARL	122 avenue Charles de Gaulle, 92200 Neuilly-sur-Seine, France	Ordinary	100
Rolls-Royce Marine Hellas S.A.	25 Atki Poseidonos str. & Makrigianni str., Moschato, Athens, GR-18344, Greece	Ordinary	100
Rolls-Royce Marine Hong Kong Limited	G/F, No 1-3 Wing Yip Street, Kwai Chung, New Territories, Hong Kong	Ordinary	100
Rolls-Royce Marine India Private Limited [3]	Birla Tower West, 2nd Floor, 25 Barakhamba Road, New Delhi, 110001, India	Ordinary	100
Rolls-Royce Marine Manufacturing (Shanghai) Limited	No.1 Xuanzhong Road, Xuanqiao Town, Pudong New Area, Shanghai, 201399, China	Ordinary	100
Rolls-Royce Marine North America, Inc.	Wilmington [2]	Common Stock	100
Rolls-Royce Marine Power Operations Limited	Derby [1]	Ordinary	100
Rolls-Royce Mexico Administration S. de R.L. de C.V.	Boulevard Adolfo Ruiz Cortinez 3642-403, Fracc Costa de Oro, Verzcruz CP 94299 6, Mexico	Ordinary	100
Rolls-Royce Mexico S. de R.L. de C.V.	Boulevard Adolfo Ruiz Cortinez 3642-403, Fracc Costa de Oro, Verzcruz CP 94299 6, Mexico	Ordinary	100
Rolls-Royce Military Aero Engines Limited *[3]	Derby [1]	Ordinary	100
Rolls-Royce Money Purchase Pension Plan Limited *[4]	Derby [1]	Ordinary	100
Rolls-Royce Namibia (Proprietary) Limited	2nd Floor, Unit 4, LA Chambers, Ausspann Plaza, Dr Agostinho Neto Road, Ausspannplatz, Windhoek, Namibia	Ordinary	100
Rolls-Royce New Zealand Limited	Level 7 Bayleys Building, 36 Brandon Street, Wellington, 6011, New Zealand	Ordinary	100
Rolls-Royce Nigeria Limited *	Civic Towers, Plot GA1, Ozumba Mbadiwe Avenue, Victoria Island, Lagos, Nigeria	Ordinary	100
Rolls-Royce North America (USA) Holdings Co.	Wilmington [2]	Common Stock	100
Rolls-Royce North America Holdings, Inc.	Wilmington [2]	Common Stock	100
Rolls-Royce North America, Inc.	Wilmington [2]	Common Stock	100
Rolls-Royce North America Ventures, Inc.	Wilmington [2]	Common Stock	100
Rolls-Royce North American Technologies, Inc.	Wilmington [2]	Common Stock	100
Rolls-Royce Nuclear Field Services France S.A.S.	ZA Notre-Dame, 84430, Mondragon, France	Ordinary	100
Rolls-Royce Nuclear Field Services, Inc.	Corporation Service Company, 80 State Street, Albany, New York 12207, United States	Common Stock	100
Rolls-Royce Oman LLC	Bait Al Reem, Business Office #131, Building No 81, Way No 3409, Block No 234, Al Thaqafa Street, Al Khuwair, PO Box 20, Postal Code 103, Oman	Cash shares	100
Rolls-Royce Operations (India) Private Limited	Birla Tower West, 2nd Floor, 25 Barakhamba Road, New Delhi, 110001, India	Ordinary	100
Rolls-Royce Overseas Holdings Limited	Derby [1]	Ordinary	100
Rolls-Royce Overseas Investments Limited	Derby [1]	Ordinary	100
Rolls-Royce Oy Ab	P.O. Box 220, Suojantie 5, 26101, Rauma, Finland	A shares	100
Rolls-Royce Placements Limited	Derby [1]	Ordinary	100

* Dormant entity.
1 Moor Lane, Derby, DE24 8BJ, England.
2 Corporation Service Company, 251 Little Falls Drive, Wilmington, Delaware 19808, United States.
3 Reporting year end is 31 March.
4 Reporting year end is 28 February.

Company name	Address	Class of shares	% of class held
Rolls-Royce plc	62 Buckingham Gate, London, SW1E 6AT, England	Ordinary	100
Rolls-Royce Poland Sp. z o.o.	Gniew 83-140, ul. Kopernika 1, Poland	Ordinary	99.9
Rolls-Royce Power Development Limited	Derby [1]	Ordinary	100
Rolls-Royce Power Engineering plc	Derby [1]	Ordinary	100
Rolls-Royce Power Systems AG	Maybachplatz 1, 88045, Friedrichshafen, Germany	Ordinary	100
Rolls-Royce Saudi Arabia Limited	PO Box 88545, Riyadh, 11672, Saudi Arabia	Cash shares	100
Rolls-Royce Singapore Pte. Limited	1 Marina Boulevard, #28-00 One Marina Boulevard, 018989, Singapore	Ordinary	100
Rolls-Royce Technical Support Sarl	Centreda I, Avenue Didier Daurat, 31700 Blagnac, Toulouse, France	Ordinary	100
Rolls-Royce Total Care Services Limited	Derby [1]	Ordinary	100
Rolls-Royce Turkey Power Solutions Industry and Trade Limited	Meclis-i Mebusan Cad No 1, Ekemen Han, 34427 Kabataş, Istanbul, Turkey	Cash shares	100
Rolls-Royce UK Pension Fund Trustees Limited *	Derby [1]	Ordinary	100
Rolls-Royce Vietnam Limited	Dông Xuyên Industrial Zone, Rach Dùa Ward, Vũng Tàu City, Bà Ria-Vũng Tàu Province, Vietnam	Capital Stock	100
Rolls-Royce Zweite Beteiligungs GmbH	Eschenweg 11, 15827 Blankenfelde-Mahlow, Germany	Capital Stock	100
Ross Ceramics Limited	Derby [1]	Ordinary	100
Scandinavian Electric Gdansk Sp. z.o.o.	ul. Reja No.3, 80-404, Gdansk, Poland	Ordinary	67
Scandinavian Electric Systems do Brazil Limitada *	Rua Sao Jose 90, salas 1406 e 1407, Centro, Rio De Janeiro, Brazil	Quotas	66
Sharing in Growth UK Limited **	Derby [1]	Limited by guarantee	100
Spare IPG 15 Limited *	Derby [1]	Ordinary	100
Spare IPG 18 Limited *	Derby [1]	Ordinary	90
Spare IPG 20 Limited *	Derby [1]	Ordinary	100
Spare IPG 21 Limited *	Derby [1]	Ordinary	100
Spare IPG 24 Limited *	Derby [1]	Ordinary	100
Spare IPG 27 Limited *	Taxiway, Hillend Industrial Estate, Dalgety Bay, Dunfermline, Fife, KY11 9JT, Scotland	7% Cumulative Preference Ordinary	100 100
Spare IPG 32 Limited *	Derby [1]	7.25% Cumulative Preference Ordinary	100 100
Spare IPG 4 Limited *	Derby [1]	Ordinary	100
The Bushing Company Limited *	Derby [1]	Ordinary	100
Timec 1487 Limited *	Derby [1]	Ordinary	100
Trigno Energy S.R.L.	Zona Industriale, San Salvo, 66050, Italy	Ordinary	100
Turborreactores S.A. de C.V.	Acceso IV, No.6, Zona Industrial Benito Juárez, Querétaro, 76120, Mexico	Class A Class B	100 100
Ulstein Holding AS	Sjøgata 80, 6065 Ulsteinvik, Norway	Ordinary	100
Ulstein Maritime Limited *	96 North Bend Street, Coquitlam, British Columbia V3K 6H1, Canada	Common	100
Vessel Lifter, Inc. *	Corporation Service Company, 1201 Hays Street, Tallahassee, Florida 32301, United States	Common Stock	100
Vickers Pension Trustees Limited *[3]	Derby [1]	Ordinary	100
Vinters Defence Systems Limited *	Derby [1]	Ordinary	100
Vinters Engineering Limited	Derby [1]	Ordinary	100
Vinters International Limited	Derby [1]	Ordinary	100
Vinters Limited	Derby [1]	Ordinary	100
Vinters-Armstrongs (Engineers) Limited *	Derby [1]	Ordinary	100
Vinters-Armstrongs Limited *	Derby [1]	Ordinary B	100
Wultex Machine Company Limited *	Derby [1]	Ordinary	100

* Dormant entity.
** The entity is not included in the consolidation as Rolls-Royce plc does not have a beneficial interest in the net assets of the entity.
1 Moor Lane, Derby, DE24 8BJ, England.
2 Corporation Service Company, 251 Little Falls Drive, Wilmington, Delaware 19808, United States.
3 Reporting year end is 31 March.

FINANCIAL STATEMENTS

Joint Ventures and Associates

Company name	Address	Class of shares	% of class held	Group interest held %
Aero Gearbox International SAS **	18 Boulevard Louis Sequin, 92700 Colombes, France	Ordinary	50	50
Aerospace Transmission Technologies GmbH **	Adelheidstrasse 40, D-88046, Friedrichshafen, Germany	Capital Stock	50	50
Airtanker Holdings Limited	Airtanker Hub, RAF Brize Norton, Carterton, Oxfordshire, OX18 3LX, England	Ordinary	20	20
Airtanker Services Limited	Airtanker Hub, RAF Brize Norton, Carterton, Oxfordshire, OX18 3LX, England	Ordinary	22	22
Alpha Leasing (US) (No.2) LLC	Wilmington [2]	Partnership (no equity held)	–	50
Alpha Leasing (US) (No.4) LLC	Wilmington [2]	Partnership (no equity held)	–	50
Alpha Leasing (US) (No.5) LLC	Wilmington [2]	Partnership (no equity held)	–	50
Alpha Leasing (US) (No.6) LLC	Wilmington [2]	Partnership (no equity held)	–	50
Alpha Leasing (US) (No.7) LLC	Wilmington [2]	Partnership (no equity held)	–	50
Alpha Leasing (US) (No.8) LLC	Wilmington [2]	Partnership (no equity held)	–	50
Alpha Leasing (US) LLC	Wilmington [2]	Partnership (no equity held)	–	50
Alpha Partners Leasing Limited	62 Buckingham Gate, London, SW1E 6AT, England	Ordinary A	100	50
Anecom Aerotest GmbH	122 Freiheitstrasse, Wildau, D-15745, Germany	Capital Stock	24.9	24.9
CFMS Limited	43 Queen Street, Bristol, BS1 4QP, England	Limited by guarantee	–	50
Clarke Chapman Portia Port Services Limited	Maritime Centre, Port of Liverpool, Liverpool, L21 1LA, England	Ordinary A	100	50
Consorcio Español para el Desarrollo Industrial del Helicóptero de Ataque Tigre, A.I.E.	Avda. de Aragón 404, 28022 Madrid, Spain	Partnership (no equity held)	–	50
Consorcio Español para el Desarrollo Industrial del Programa Eurofighter, A.I.E.	Paseo de John Lennon, s/n, edificio T22, 2ª planta, Getafe, Madrid, Spain	Partnership (no equity held)	–	50
Egypt Aero Management Services	EgyptAir Engine Workshop, Cairo International Airport, Cairo, Egypt	Ordinary	50	50
EPI Europrop International GmbH	Dachauer Strasse 655, 80995, Munich, Germany	Capital Stock	44	44
EPIX Power Systems, LLC	The Corporation Trust Company, 1209 Orange Street, Wilmington, Delaware 19801, United States	Partnership (no equity held)	–	50
Eurojet Turbo GmbH	Lilienthalstrasse 2b, 85399 Halbergmoos, Germany	Capital Stock	46	46
GE Rolls-Royce Fighter Engine Team LLC	The Corporation Trust Company, 1209 Orange Street, Wilmington, Delaware 19801, United States	Partnership (no equity held)	–	50
Genistics Holdings Limited	Derby [1]	Ordinary A	100	50
Global Aerospace Centre for Icing and Environmental Research Inc.	1000 Marie-Victorin Boulevard, Longueuil Québec J4G 1A1, Canada	Ordinary	50	50
Hong Kong Aero Engine Services Limited	33rd Floor, One Pacific Place, 88 Queensway, Hong Kong	Ordinary	50	50
Hovden Klubbhus AS	Stålhaugen 5, Ulsteinvik, 6065, Norway	Ordinary	69	69
International Aerospace Manufacturing Private Limited **3	Survey No. 3 Kempapura Village, Varthur Hobli, Bangalore, KA 560037, India	Ordinary	50	50
LG Fuel Cell Systems Inc.	Wilmington [2]	Common Stock	27	27
Light Helicopter Turbine Engine Company (unincorporated partnership)	Suite 119, 9238 Madison Boulevard, Madison, Alabama 35758, United States	Partnership (no equity held)	–	50
MEST Co., Limited	97 Bukjeonggongdan 2-gil, Yangsan-si, Gyeongsangnam-do, 50571, Republic of Korea	Normal	46.8	46.8

* Dormant company.
** These entities are accounted for as joint operations (see note 1 accounting policies).
[1] Moor Lane, Derby, DE24 8BJ, England.
[2] Corporation Service Company, 251 Little Falls Drive, Wilmington, Delaware 19808, United States.
[3] Reporting year end is 31 March.

Company name	Address	Class of shares	% of class held	Group interest held %
Metlase Limited	Unipart House, Garsington Road, Cowley, Oxford, OX4 2PG, England	Ordinary B	100	20
MTU Turbomeca Rolls-Royce GmbH	Am Söldnermoos 17, 85399 Hallbergmoos, Germany	Capital Stock	33.3	33.3
MTU Turbomeca Rolls-Royce ITP GmbH	Am Söldnermoos 17, 85399 Hallbergmoos, Germany	Capital Stock	50	50
MTU Yuchai Power Company Limited	No 7 Danan Road, Yuzhou, Yulin, Guangxi, China, 537005, China	Capital Stock	50	50
N3 Engine Overhaul Services GmbH & Co KG	Gerhard-Höltje-Strasse 1, D-99310, Arnstadt, Germany	Capital Stock	50	50
N3 Engine Overhaul Services Verwaltungsgesellschaft Mbh	Gerhard-Höltje-Strasse 1, D-99310, Arnstadt, Germany	Capital Stock	50	50
Offshore Simulator Centre AS	Borgundvegen 340, 6009, Ålesund, Norway	Ordinary	25	25
Rolls Laval Heat Exchangers Limited *	Derby [1]	Ordinary	100	50
Rolls-Royce & Partners Finance (US) (No 2) LLC	Wilmington [2]	Partnership (no equity held)	–	50
Rolls-Royce & Partners Finance (US) LLC	Wilmington [2]	Partnership (no equity held)	–	50
SAFYRR Propulsion Limited	Derby [1]	B Shares	100	50
Shanxi North MTU Diesel Co. Limited	No.97 Daqing West Road, Datong City, Shanxi Province, China	Ordinary	49	49
Singapore Aero Engine Services Private Limited	11 Calshot Road, 509932, Singapore	Ordinary	50	50
Texas Aero Engine Services LLC	The Corporation Trust Company, 1209, Orange Street, Wilmington, Delaware 19801, United States	Partnership (no equity held)	–	50
Techjet Aerofoils Limited **	Tefen Industrial Zone, PO Box 16, 24959, Israel	Ordinary A Ordinary B	50 50	50
TRT Limited	Derby [1]	Ordinary B	100	49.9
Turbine Surface Technologies Limited **	Derby [1]	Ordinary B	100	50
Turbo-Union Limited	Derby [1]	A Shares Ordinary	37.5 40	40
UK Nuclear Restoration Limited *	Booths Park, Chelford Road, Knutsford, Cheshire, WA16 8QZ, England	Ordinary	20	20
Viking Reisebyra AS	Stålhaugen 10, 6065 Ulsteinvik, Norway	Ordinary	50	50
Xian XR Aero Components Co., Limited **	Xujiawan, Beijiao, Po Box 13, Xian 710021, Shaanxi, China	Ordinary	49	49

* Dormant company.
** These entities are accounted for as joint operations (see note 1 accounting policies).
[1] Moor Lane, Derby, DE24 8BJ, England.
[2] Corporation Service Company, 251 Little Falls Drive, Wilmington, Delaware 19808, United States.
[3] Reporting year end is 31 March.

Independent Auditor's Report

to the members of Rolls-Royce Holdings plc

1 Our opinion is unmodified

We have audited the financial statements of Rolls-Royce Holdings plc ("the parent Company") for the year ended 31 December 2017 which comprise the Consolidated Income Statement, the Consolidated Statement of Comprehensive Income, the Consolidated Balance Sheet, the Consolidated Cash Flow Statement, the Consolidated Statement of Changes in Equity, and the related notes, including the accounting policies in Note 1, and the Company Balance Sheet, Company Statement of Changes in Equity, and the related notes, including the accounting policies in Note 1.

In our opinion:

- **the financial statements give a true and fair view of the state of the Group's and of the parent Company's affairs as at 31 December 2017 and of the Group's profit for the year then ended;**
- **the Group financial statements have been properly prepared in accordance with International Financial Reporting Standards as adopted by the European Union;**
- **the parent Company financial statements have been properly prepared in accordance with UK accounting standards, including FRS 101 Reduced Disclosure Framework; and**
- **the financial statements have been prepared in accordance with the requirements of the Companies Act 2006 and, as regards the Group financial statements, Article 4 of the IAS Regulation.**

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) ("ISAs (UK)") and applicable law. Our responsibilities are described below. We believe that the audit evidence we have obtained is a sufficient and appropriate basis for our opinion. Our audit opinion is consistent with our report to the Audit Committee.

We were appointed as auditor by the directors for the year ending 31 December 1990. The period of total uninterrupted engagement is for the 28 financial years ended 31 December 2017. This is my fifth year as Senior Statutory Auditor. We have fulfilled our ethical responsibilities under, and we remain independent of the Group in accordance with, UK ethical requirements including the FRC Ethical Standard as applied to listed public interest entities. No non-audit services prohibited by that standard were provided.

2 Key audit matters: our assessment of risks of material misstatement

Key audit matters are those matters that, in our professional judgement, were of most significance in the audit of the financial statements and include the most significant assessed risks of material misstatement (whether or not due to fraud) identified by us, including those which had the greatest effect on: the overall audit strategy; the allocation of resources in the audit; and directing the efforts of the audit team. We summarise below the key audit matters in arriving at our audit opinion above, together with our key audit procedures to address those matters and our findings from those procedures in order that the Company's members as a body may better understand the process by which we arrived at our audit opinion. These matters were addressed, and our findings are based on procedures undertaken, in the context of, and solely for the purpose of, our audit of the financial statements as a whole, and in forming our opinion thereon, and consequently are incidental to that opinion, and we do not provide a separate opinion on these matters.

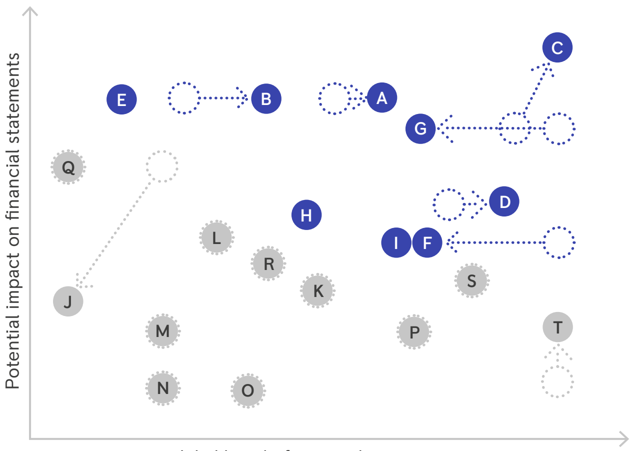
When planning our audit, we made an assessment of the relative significance of the key risks of material misstatement to the Group financial statements, initially without taking account of the effectiveness of controls implemented by the Group. This initial assessment is shown below in the output from our Dynamic Audit planning tool. Of the 20 key risks identified, we consider nine (those in dark blue on the risk map) to be key audit matters. There have been a number of changes since last year:

- During the year, the Group acquired the 53.1% of Industria De Turbo Propulsores SA (ITP Aero) that it did not already own and the risks relating to the remeasurement of the interest already owned to fair value, the risks relating to the identification and measurement at fair value of the acquired intangible assets and the consequent recognition of a "bargain purchase gain" are key risks (and a key audit matter) this year.
- The Group will adopt IFRS 15 *Revenue from contracts with customers* with effect from 2018 and is disclosing the impact in these financial statements for the first time. The risks that the Group has not developed policies in line with the new standard, that not all material areas of potential change have been identified and that the policies have not been applied appropriately are key risks (and a key audit matter) this year.
- The Group entered into deferred prosecution and leniency agreements in connection with alleged bribery and corruption in overseas territories in January 2017. If the Group were found to have failed to fulfil its responsibilities under the deferred prosecution agreements it would risk prosecution and this would require disclosure in the financial statements. The key risk identified last year relating to bribery and corruption has been subsumed into a broader key risk (which is also a key audit matter) relating to the omission of such disclosure. In addition, the key risk identified last year relating to the disclosure of the consequences of the investigations is no longer considered to be a key risk.
- Over recent years, the Group has reduced the level of asset value support provided to customers (though it continues to provide standby credit lines to customers) and we assessed the risk of material misstatement to have reduced to such an extent that this key risk is no longer a key audit matter.

Apart from this, the key risks are the same as in the previous year.

Finally, following changes to auditing standards, we have included a key audit matter relating to the recoverability of the parent Company's investment in its subsidiaries.

Dynamic Audit planning tool
(Relative significance of audit risks before taking account of controls)



- A The pressure on and incentives for management to meet revenue, profit and cash targets
- B The basis of accounting for revenue and profit in the Civil Aerospace business
- C The measurement of revenue and profit in the Civil Aerospace business
- D Recoverability of intangible assets in the Civil Aerospace business
- E Consequences of deferred prosecution and leniency agreements in connection with alleged bribery and corruption in overseas markets
- F The presentation of 'underlying profit'
- G Disclosure of the effect on the trend in profit of items which are uneven in frequency or amount
- H Gains resulting from the acquisition of a controlling interest in Industria De Turbo Propulsores SA
- I Disclosure of the impact of adopting IFRS 15
- J Liabilities arising from sales financing arrangements (see page 130)
- K Measurement of revenue and profit on long-term contracts outside the Civil Aerospace business (see pages 124 and 125)
- L Determination of development costs to be capitalised (see page 124)
- M The basis of accounting for contractual aftermarket rights (see page 122)
- N Determination of the amortisation period of development costs and contractual aftermarket rights (see pages 128 and 129)
- O The basis of accounting for Risk and Revenue Sharing Arrangements (see pages 123 and 124)
- P Estimating provisions for warranties and guarantees (see page 125)
- Q Valuation of derivatives and hedge accounting (see pages 127 and 128)
- R Measurements of post-retirement benefits (see page 125)
- S Accounting for uncertain tax positions and deferred tax assets (see page 125)
- T Valuation of goodwill (see page 124)

A The pressure on and incentives for management to meet revenue, profit and cash targets

Refer to pages 21 to 41 (Business review) and pages 99 and 100 (Audit Committee report – Financial reporting)

The risk *(Subjective estimates)* – The continuing pressure on and incentives for management to meet targets increases the inherent risk of manipulation of the Group financial statements. The financial results are sensitive to significant estimates and judgements, particularly in respect of revenues and costs associated with long-term contracts, and there is a broad range of acceptable outcomes of these that could lead to different levels of profit and revenue being reported in the financial statements. Relatively small changes in the basis of those judgements and estimates could result in the Group meeting, exceeding or falling short of forecasts, guidance or targets. The Group's incentive schemes include targets related to profit and to cash generation.

The significance of this risk increased somewhat during the year as (1) the Group has been impacted by the increasing cost and challenge of managing significant in-service engine issues on the Trent 1000 and Trent 900 programmes and so there could be motivation to overstate financial performance to downplay the impact of these on the Group and (2) there have been significant changes in the Executive Leadership Team in the last year and so there could be motivation to establish credibility.

Our response – Our procedures included:

- ***Personnel interviews:*** We have made specific enquiries designed to assess whether judgements and estimates exhibited unconscious bias or whether management had taken systematic actions to manipulate the reported results and whether sector management received instruction from Group to make changes in estimates that failed to consider appropriately all relevant information in determining the estimate;
- ***Test of details:*** Compared the results to forecasts, guidance and targets, and challenged variances at a much lower level than we would otherwise have done based on our understanding of factors affecting business performance with corroboration using external data where possible;
- ***Our sector experience:*** Applied an increased level of scepticism throughout the audit by increasing the involvement of the senior audit team personnel, with particular focus on audit procedures designed to assess whether revenues and costs have been recognised in the correct accounting period, whether central adjustments were appropriate and whether the segmental analysis has been properly prepared. In particular:
  - when considering the risk relating to *The measurement of revenue and profit in the Civil Aerospace business* (C refer to pages 185 and 186), we challenged the basis for changes in the estimated revenues and costs in long-term contracts, with a heightened awareness of the possibility of unconscious or systematic bias with particular emphasis on the treatment of the additional costs estimated to have to be incurred as a consequence of the in-service engine issues on the Trent 1000 and Trent 900 programmes;
  - when considering the risk relating to *Recoverability of intangible assets in the Civil Aerospace business* (D refer to pages 186 and 187), we challenged, with a heightened awareness of the possibility of unconscious or systematic bias, the basis of cost estimates in particular those relating to the development of the Trent 900 modifications required to give improvements to time on wing and fuel burn; and
- ***Assessing transparency:*** When considering the risk relating to *The presentation of underlying profit* (F refer to pages 188 and 189) and the risk relating to *Disclosure of the effect on the trend in profit of items which are uneven in frequency or amount*

(G refer to pages 189 and 190), we sought to identify items that affected profit (and/or the trend in profit) unevenly in frequency or amount (especially those where management had a greater degree of discretion over the timing or scale of transactions entered into) at a much lower level than we would otherwise have done and to assess the balance and transparency of disclosure of these items.

Our findings – Our testing did not identify any indication of manipulation of results *(2016 audit finding: none)*. We found the degree of caution/optimism adopted in estimates to be balanced overall *(2016 audit finding: balanced)*. We found that there was ample unbiased disclosure of items affecting the trend in profit.

B The basis of accounting for revenue and profit in the Civil Aerospace business

Refer to pages 122 and 123 (Key areas of judgement – Introduction, Contractual aftermarket rights, Linkage of OE and long-term aftermarket contracts), page 126 (Significant accounting policies – Revenue recognition) and pages 99 and 100 (Audit Committee report – Financial reporting)

The risk *(Accounting treatment)* – The amount of revenue and profit recognised in a year on the sale of engines and aftermarket services is dependent, inter alia, on the appropriate assessment of whether or not each long-term aftermarket contract for services is linked to or separate from the contract for sale of the related engines as this drives the accounting basis to be applied. As the commercial arrangements can be complex, significant judgement is applied in selecting the accounting basis in each case. The most significant risk is that the Group might inappropriately account for sales of engines and long-term service agreements as a single arrangement as this would usually lead to revenue and profit being recognised too early because the margin in the long-term service agreement is usually higher than the margin in the engine sale agreement.

The significance of the risk increased during the year as more engines were delivered this year.

Our response – Our procedures included:

- ***Accounting analysis:*** We evaluated the appropriateness of the accounting bases the Group applies in the Civil Aerospace business by reference to accounting standards focusing on the substance of the transactions.
- ***Assessing transparency:*** We considered whether the disclosure included in the financial statements enables shareholders to understand how the accounting policies represent the commercial substance of the Group's contracts with its customers.
- ***Testing application:*** We made our own independent assessment, with reference to the relevant accounting standards, of the accounting basis that should be applied to each long-term aftermarket contract entered into during the year and compared this to the accounting basis applied by the Group.

Our findings – We found that the Group has developed a framework for selecting the accounting bases which is consistent with a balanced interpretation of accounting standards and has applied this consistently *(2016 audit finding: balanced)*. We found that the disclosure was ample *(2016 audit finding: ample)*. For the agreements entered into during this year, it was clear which accounting basis should apply.

C The measurement of revenue and profit in the Civil Aerospace business

Refer to pages 122 and 123 (Key areas of judgement – Measurement of performance on long-term aftermarket contracts), page 126 (Significant accounting policies – Revenue recognition and TotalCare arrangements) and pages 99 and 100 (Audit Committee report – Financial reporting)

The risk *(Subjective estimates)* – The amount of revenue and profit recognised in a year on the sale of engines and on aftermarket services is dependent, inter alia, on the assessment of the percentage of completion of long-term aftermarket contracts and the forecast cost profile of each arrangement. As long-term aftermarket contracts can typically span 15-25 years and the profitability of these arrangements typically assumes substantial life-cycle cost improvement over the term of the contracts, the estimated outturn requires significant judgement to be applied in estimating future engine flying hours, time on wing and other operating parameters, the pattern of future maintenance activity and the costs to be incurred. In addition unanticipated technical issues can emerge without prior indication and add many hundreds of millions of pounds to future cost estimates.

The nature of these estimates means that their continual refinement can have an impact on the profits of the Civil Aerospace business that can be significant in an individual financial year and the range of acceptable of judgements are such that the cumulative profit to date on the programs could vary by some hundreds of millions of pounds.

The Group has experienced significant in-service engine issues on both the Trent 1000 and Trent 900 programmes. Assessing the estimated cost of managing these issues, assessing which costs relate to long-term aftermarket contracts and which are development costs and assessing the extent to which the proposed engineering solutions will improve engine performance are all significant judgements which have a significant effect on profit recognition.

As a consequence of these in-service engine issues, the significance of the risk has increased significantly during the year.

Our response – Our procedures included:

- ***Controls:*** We tested the controls designed and applied by the Group to provide assurance that the estimates used in assessing revenue and cost profiles are appropriate and that the resulting estimated cumulative profit on these contracts is accurately reflected in the financial statements; these controls operated over both the inputs and the outputs of the calculations.
- ***Historical comparisons and our sector knowledge:*** We challenged the appropriateness of these estimates for each programme and assessed whether or not the estimates indicated any evidence of systematic or unconscious management bias in the context of the heightened pressure on and incentives for management to meet forecasts, guidance and targets discussed above. Our challenge was based on our assessment of the historical accuracy of the Group's estimates in previous periods in relation to both cost and revenue forecasts, identification and analysis of changes in assumptions from prior periods and an assessment of the consistency of assumptions within programmes as well as with our sector experience.

Our analysis of forecast revenues considered each significant airframe that is powered by the Group's engines. We developed expectations of changes which were based on discussions with commercial and operational management and our own experience, supplemented by discussions with an aircraft valuation specialist engaged by the Group. We assessed whether the valuation specialist was objective and suitably qualified.

Our analysis of forecast costs considered costs on both a programme-by-programme basis and on a cross-programme basis. We undertook detailed assessments of the achievability of the Group's plans to reduce life-cycle costs and an analysis of the impact of these plans on forecast cost profiles taking account of the impact of known technical issues on cost forecasts. We compared future cost assumptions to those adopted in the prior year and sought explanations for these movements from financial and operational management, corroborating to appropriate engineering cost data. We focused on the estimates of costs expected to be incurred to respond to the in-service engine issues on the Trent 1000 and Trent 900 programmes.

We considered the nature of the causes of the in-service engine issues on the Trent 1000 and Trent 900 programmes and challenged management on its assessment of the extent to which the proposed engineering solutions will improve engine performance and the extent to which this assessment has been reflected in the estimated cumulative profit on aftermarket contracts on the affected fleets. As this assessment is dependent on deep engineering expertise of management personnel, we requested and received specific representations from the Board of Directors that it was likely that the proposed engineering solutions should improve engine performance to at least the levels included in these accounting estimates.

- ***Test of details:*** We considered a combination of external and internal information to determine expectations for contract revenue and cost assumptions for each programme and identified contracts that were outliers. We sought explanations for these outliers and corroborated these explanations by reference to appropriate commercial information and, where necessary, the underlying contracts.

  For all new contracts in the period we assessed whether key contractual terms, such as the contract length, the number of engines expected to be delivered and the flying hour rates, were correctly reflected in the contract accounting models. We also reviewed the contracts for unusual terms that might indicate a cost profile different to the baseline cost assumptions for the fleet.

  We also checked the mathematical accuracy of analysis of the in-year margin impact of changes in cost and revenue estimates on a contract by contract basis. For a sample of contracts we obtained explanations for the changes in assumptions, corroborating those explanations by reference to appropriate commercial and operational data, and assessed whether any changes identified had been reflected across other fleets where relevant.

  We considered the completeness of cost estimates for emerging technical issues by reviewing a combination of external information, such as air worthiness directives, and internal information such as registers of in-flight events and disruption indices.

  We challenged the assessment of the recoverability of contract assets by considering external customer credit ratings and searching for any other indicators of stress amongst the customer base. We also considered whether there were any indicators of heightened risk over forecast revenue assumptions by considering the recent hours flown by customers, with a particular focus on older fleets.

- ***Personnel interviews:*** We interviewed a wide range of financial and operational personnel to identify any factors that should be taken into account in our analysis. In all cases we corroborated management's explanations, including changes in assumptions, and evaluated these relative to our own analysis. We assessed whether there were any indicators of bias in the explanations provided to us by management.

Our findings – We focused our controls testing on controls that we assessed as likely to provide effective audit evidence, largely those relating to revenue estimates. We also considered the operation of other controls in order to provide relevant comment to management and the Audit Committee. We found that the remediation of control weaknesses identified in earlier periods had been consolidated. The scope and depth of our detailed testing and analysis was expanded to take account of the remaining control weaknesses.

We found that the in-service issues on the Trent 1000 and Trent 900 programmes largely related to a shorter than expected life of turbine blades. We therefore consider that the short-term costs of monitoring the condition of these blades and replacing them earlier than anticipated where necessary and the costs of fitting replacement parts with longer lives (and the cost of related disruption claims) were properly assessed as being contract costs and that the cost of designing replacement parts with longer lives (and associated improvements) were properly assessed as being development costs that should be charged to the income statement as incurred.

We found that the estimates included in the accounting for long-term aftermarket contracts on the Trent 1000 and Trent 900 fleets affected by the in-service engine issues were balanced and that the current level of understanding and the nature of some of these issues are such that the estimated level of improvement in engine performance and the estimated costs could change significantly in the future as this understanding matures.

Our testing did not identify any indicators of management bias in the estimation of future contract costs or revenues and verified that refinements to estimates made during the period were justifiable and within a range of reasonably expected outcomes. Overall, our assessment is that the assumptions and resulting estimates resulted in balanced (2016 audit finding: balanced) profit recognition.

D Recoverability of intangible assets (certification costs and participation fees, development expenditure and contractual aftermarket rights) in the Civil Aerospace business

Refer to page 124 (Key sources of estimation uncertainty – Forecasts and discount rates), pages 128 and 129 (Significant accounting policies – Certification costs and participation fees, Research and development, Contractual aftermarket rights and Impairment of non-current assets), pages 142 to 143 (Note 9 to the financial statements – Intangible assets) and pages 99 and 100 (Audit Committee report – Financial reporting)

The risk *(Forecast-based valuation)* – The recovery of these assets depends on a combination of achieving sufficiently profitable business in the future as well as the ability of customers to pay amounts due under contracts often over a long period of time. Assets relating to a particular engine programme are more prone to the risk of impairment in the early years of a programme as the engine's market position is established. In addition, the pricing of business with launch customers makes assets relating to these engines more prone to the risk of impairment.

The significance of the risk has increased during the year due to the substantial increase in the estimated cost of managing in-service engine issues and developing longer-lived turbine blades (and associated improvements) for the Trent 900 programme, which is the programme where the intangible assets are most susceptible to impairment.

Our response – Our procedures focused on the Trent 900 programme intangible assets and included:

- ***Controls:*** We tested the controls designed and applied by the Group to provide assurance that the assumptions used in preparing the impairment calculations are regularly updated, that changes are monitored, scrutinised and approved by appropriate personnel and that the final assumptions used in impairment testing have been appropriately approved.
- ***Historical comparisons and our sector knowledge:*** We challenged the appropriateness of the key assumptions in the impairment tests (including market size, market share, pricing, engine and aftermarket unit costs, individual programme assumptions, price and cost escalation, discount rate and exchange rates). Our challenge was based on our assessment of the historical accuracy of the Group's estimates in previous periods, our understanding of the commercial prospects of key engine programmes, identification and analysis of changes in assumptions from prior periods and an assessment of the consistency of assumptions across programmes and customers and comparison of assumptions with public data where this was available. This assessment was also informed by discussions with an aircraft valuation specialist engaged by the Group. We assessed whether the valuation specialist was objective and suitably qualified.

  We also assessed whether the significant increase in the estimated cost of managing the in-service engine issues on the Trent 900 programme indicated that management's estimates made for the 2016 impairment test for that programme were optimistic and whether that should impact on our assessment of estimates made this year.

  We considered the nature and causes of the in-service engine issues on the Trent 900 programme and challenged management on its assessment of the cost of addressing these issues and on the extent to which the proposed engineering solutions will improve engine performance and the extent to which this assessment has been reflected in the estimated future cash flows of the affected fleets. As these assessments are dependent on deep engineering expertise of management personnel, we requested and received specific representations from the Board of Directors that it was likely that the proposed engineering solutions should improve engine performance to at least the levels included in these accounting estimates.
- ***Test of details:*** For in-service engines we compared the assumptions in the impairment model to those that we had verified to be appropriate in the contract accounting models through the procedures discussed above. We compared assumptions in the business plans to those adopted in prior periods and for all changes we obtained explanations, corroborating those explanations by reference to appropriate commercial and operational data.
- ***Sensitivity analysis:*** We performed sensitivity analysis to assess the impact of possible different assumptions related to revenue and cost estimates including (1) increases or decreases to the forecast period of aftermarket revenue on current in-service engines, (2) decreases to the forecast future engine sales and (3) increases or decreases to the forecast costs or delays in delivering the solutions to the in-service technical issues referred to above including any increased pay-outs under associated guarantees to a cornerstone customer.
- ***Personnel interviews:*** We interviewed a wide range of financial and operational personnel to identify any factors that should be taken into account in our analysis. In all cases we corroborated management's explanations, including changes in assumptions, and evaluated these relative to our own analysis. We assessed whether there were any indicators of bias in the explanations provided to us by management.
- ***Assessing transparency:*** We considered whether the disclosures in Note 9 to the financial statements describe the inherent degree of subjectivity in the estimates and the potential impact on future periods of revisions to these estimates.

Our findings – Our testing did not identify weaknesses in the design and operation of controls that would have required us to expand the nature or scope of our planned detailed test work. We found no errors in calculations *(2016 audit finding: none).*

With regard to the Trent 900 programme assets, we found (1) that the cost estimates made for the 2016 impairment test were appropriate in hindsight, based on the emergence of the issues late in 2016 and the data available at that time; (2) that there is no evidence that estimates made for the 2017 impairment test were biased; and (3) that overall the assumptions and resulting estimates on the Trent 900 programme were mildly optimistic and that other acceptable estimates could have led to the recognition of an impairment *(2016 audit finding: balanced)*. We found that the disclosures relating to the carrying value of programme intangible assets were proportionate in the context of a significant portion of these assets being derecognised on adoption of IFRS 15 *Revenue from Contracts with Customers (2016 audit finding: proportionate)*.

E Consequences of deferred prosecution and leniency agreements in connection with alleged bribery and corruption in overseas markets

Refer to pages 109 (Safety & Ethics Committee report – Ethics and compliance)

The risk *(Omitted disclosure)* – In January 2017, the Group entered into deferred prosecution agreements with the UK Serious Fraud Office (SFO) and the US Department of Justice (DoJ) and a leniency agreement with the Brazilian Federal Prosecution Service (MPF) (the "Agreements") related to allegations against the Group for making fraudulent payments to commercial intermediaries in overseas territories. Under the Agreements, prosecution was suspended provided that the Group fulfils certain requirements, including the payment of a financial penalty. If the Group were found to have failed to fulfil its responsibilities under the Agreements it would risk prosecution and this would require disclosure in the financial statements.

We have read the Agreements and consider that the most relevant circumstance that could result in the risk of prosecution would be identification of further instances of bribery and corruption (whether or not reported to the authorities). The Group operates in an industry where some procurement processes are highly susceptible to the risk of corruption. A large part of the Group's business is characterised by competition for individually significant contracts with customers which are often directly or indirectly associated with governments. In addition the Group operates in a number of territories where the use of commercial intermediaries is either required by the government or is common practice.

We therefore designed an approach to provide reasonable assurance that we would identify bribery and corruption involving commercial intermediaries that would require disclosure in the financial statements. However, as described below reasonable assurance is a high level of assurance. It does not guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when one exists. As with any audit, there remains a higher risk of non-detection of irregularities (such as bribery and corruption), as these may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal controls.

Whilst this inherent limitation is the same as that in other audits, it should be of greater significance to the addressee of this audit report.

This is a risk arising for the first time this year.

Our response – Our procedures included:

- ***Heightened scepticism and use of our anti-bribery and corruption expertise:*** Throughout the audit we maintained a high level of vigilance to possible indications of significant non-compliance with laws and regulations relating to bribery and corruption whilst carrying out our other audit procedures. In particular, we communicated the risks over bribery and corruption to our team, which included individuals with experience relevant to considering bribery and corruption risks in the context of an audit, and we requested our component teams to report on any possible indications of irregularities in this area.
- ***Control design:*** We evaluated the tone set by the Board of Directors and the Executive Leadership Team and the Group's approach to managing the risk of bribery and corruption. We evaluated and tested the Group's policies, procedures and controls over selection, appointment and renewal of intermediaries, contracting with intermediaries, ongoing management of contracts with intermediaries and payments made to intermediaries. We observed Sector Audit Committee meetings at which lists of payments were reviewed for completeness. We evaluated internal audits covering payments to intermediaries and we compared the results of the internal audits to the results of our testing of payments described below. We also made enquiries of the Group's central compliance function and reviewed their reporting to the Safety & Ethics Committee and to the Sector Audit Committees in connection with the identification of and response to suspected breaches of policy.
- ***Test of details:*** We sought to identify payments made to commercial intermediaries during the year using data analysis techniques. This included (1) searching for transaction details which included specific terms or names of organisations that in our experience could be associated with potential payments to commercial intermediaries, or the names of commercial intermediaries that had been rejected through the Group's selection process or had been identified during the investigations by the DoJ, SFO and MPF and (2) extracting details of transactions that had been recorded in accounts that were intended to record payments to commercial intermediaries. For a sample of these transactions, we then tested whether the identified transactions had been subject to the Group's controls over approval of payments made to commercial intermediaries including whether the organisations to which payments were made had been subject to the Group's controls over the appointment and renewal of commercial intermediaries.
- ***Enquiry of lawyers:*** Having enquired of management, including the Head of Ethics and Compliance and the Group General Counsel, the Audit Committee and the Board of Directors as to whether the Group is in compliance with laws and regulations relating to bribery and corruption, we made written enquiries of and met with the Group's legal advisers to cross check the results of those enquiries and also to enquire whether they were aware of any matters relating to the Group's compliance with the Agreements.
- ***Compliance report scrutiny:*** We reviewed the compliance reports required to be made to the DoJ and the SFO under the Agreements and to other authorities and vouched the status of matters documented in these reports to further support where objectively verifiable.

Our findings – We did not identify any breaches of the requirements of the Agreements, payments of bribes or other corrupt behaviour that would result in omitted disclosure in the financial statements.

Presentation and explanation of results
Refer to pages 21 to 41 (Business review), pages 16 to 19 and 50 to 54 (Financial review), pages 132 to 136 (Note 2 to the financial statements – Segmental analysis) and pages 99 and 100 (Audit Committee report – Financial reporting)

F The presentation of 'underlying profit'

The risk *(Presentation appropriateness)* – In addition to its Adopted IFRS financial statements, the Group presents an alternative income statement on an 'underlying' basis. The directors believe the 'underlying' income statement reflects better the Group's trading performance during the year. The basis of adjusting between the Adopted IFRS and 'underlying' income statements and a full reconciliation between them is set out in Note 2 to the financial statements on pages 134 and 135.

A significant recurring adjustment between the Adopted IFRS financial information and the 'underlying' financial information relates to the foreign exchange rates used to translate foreign currency transactions. The Group uses forward foreign exchange contracts to manage the cash flow exposures of a proportion of forecast transactions denominated in foreign currencies (with the aim of having transactions denominated in foreign currencies in the current period fully hedged) but does not apply hedge accounting in its Adopted IFRS financial information for these transactions. The 'underlying' financial information translates transactions denominated in foreign currencies at the achieved foreign exchange rate on forward foreign exchange contracts settled in the period, retranslates assets and liabilities at exchange rates forecast to be achieved from future settlement of such contracts and excludes unrealised gains and losses on such contracts which are included in the Adopted IFRS income statement. The Group has discretion over which forward foreign exchange contracts are settled in each financial year, which could impact the achieved rate both for the period and in the future. Management bias in the selection of the settled forward foreign exchange contracts could distort the performance of the Group.

In addition, adjustments are made to exclude one-off past-service costs on post-retirement schemes, the cost of restructuring programmes that involve the substantial closure or exit from a site, facility or line of business or other major transformation activities, the effect of acquisition accounting (including any subsequent impairments of goodwill or other intangible assets), gains or losses on the sale of businesses and a number of other items.

Alternative performance measures (such as the 'underlying' financial information) can provide shareholders with appropriate additional information if properly used and presented. In such cases, measures such as these can assist shareholders in gaining a more detailed and hence better understanding of a company's financial performance and strategy. However, when improperly used and/or presented, these kinds of measures might prevent the Annual Report being fair, balanced and understandable by hiding the real financial position and results or by distorting the apparent profitability of the Group.

The significance of this risk has decreased this year following the inclusion of somewhat improved disclosure of the nature and amounts of the adjustments between Adopted IFRS and underlying measures in the 2016 and 2017 Annual Reports.

Our response – Our procedures included:

- ***Assessing principles:*** We assessed the appropriateness of the basis for the adjustments between the Adopted IFRS income statement and the 'underlying' income statement.
- ***Assessing application:*** We assessed the consistency of application of this basis and we recalculated the adjustments with a particular focus on the impact of the foreign exchange rates used to translate foreign currency amounts in the 'underlying' income statement. We assessed whether or not the selection of forward foreign exchange contracts settled in the year showed any evidence of management bias.
- ***Assessing transparency:*** We also assessed: (i) the extent to which the prominence given to the 'underlying' financial information and related commentary in the Annual Report compared to the Adopted IFRS financial information and related commentary could be misleading; (ii) whether the Adopted IFRS and 'underlying' financial information are reconciled with sufficient prominence given to that reconciliation; (iii) whether the basis of the 'underlying' financial information is clearly and accurately described and consistently applied; and (iv) whether the 'underlying' financial information is not otherwise misleading in the form and context in which it appears in the Annual Report.

Our findings – We found no concerns regarding the basis of the 'underlying' financial information or its calculation and no indication of management bias in the settlement of forward foreign exchange contracts. We consider that there is proportionate disclosure of the nature and amounts of the adjustments to allow shareholders to understand the implications of the two bases on the financial measures being presented *(2016 audit finding: proportionate (and somewhat improved))*. We found the overall presentation of the 'underlying' financial information to be balanced *(2016 audit finding: balanced)*.

G Disclosure of the effect on the trend in profit of items which are uneven in frequency or amount

The risk *(Presentation appropriateness)* – The Group's profits are significantly impacted by items, such as cumulative adjustments to profit recognised on long-term contracts, impairments (and reversals of impairments) of goodwill, CARs and other intangible assets, sale and leasebacks of spare engines to joint ventures, research and development charges, reorganisation costs and foreign exchange translation, which can be uneven in frequency and/or amount. If significant either to the profit for the year or to the trend in profit, appropriate disclosure of the effect of these items is necessary in the Annual Report and financial statements to provide the information necessary to enable shareholders to assess the Group's performance.

The significance of this risk has decreased this year as the Group now has a well-established practice of providing ample disclosure of these items.

Our response – Our procedures included:

- ***Assessing balance and assessing transparency:*** We undertook detailed analysis of business performance at Group and segment level that sought to identify items that affect profit (and the trend in profit) which are uneven in frequency or amount at a much lower level than we would otherwise have done and to assess the transparency of disclosure of these items. We challenged the prominence and adequacy of the disclosures throughout the Annual Report and in the results announcement relating to the significant in-service engine issues on the Trent 1000 and Trent 900 programmes, in particular the adequacy of the disclosure indicating the estimated future cost of these issues in the context of only a proportion of the cash impact being incurred to date and of contract accounting resulting in only a proportion of the estimated ultimate cost having been recorded in the income statement to date.

Our findings – We identified a number of significant items that had affected profit for the year or the prior year that required appropriate disclosure in the Annual Report to enable shareholders to assess the Group's performance. The key items are:

(1) the £2,648m unrealised fair value gains *(2016: £4,420m losses)* on derivative contracts;

(2) the £227m loss *(2016: £98m loss)* relating to in-service engine issues on the Trent 1000 and Trent 900 programmes;

(3) the £113m gain *(2016: £217m gain)* arising from the impact of improvements in lifecycle costs on long-term contracts;

(4) the £148m loss *(2016: £98m loss)* on long-term contracts arising from technical issues on Civil Aerospace engines including £114m *(2016: £55m)* relating to the in-service engine issues on the Trent 1000 and Trent 900 programmes which is also included in (2) above;

(5) the £77m gain *(2016: nil)* resulting from an improvement in a customer credit rating;

(6) the £60m loss *(2016: £29m loss)* arising from other estimate changes on long-term contracts;

(7) the £795m *(2016: £918m)* of research and development charges, which excludes £83m of costs capitalised in 2017 as certain programmes reached capitalisation point under revised application of the Group's accounting policy;

(8) the £104m, net of a release of prior year provisions of £3m, *(2016: £129m, net of a £5m release)* of exceptional restructuring charges;

(9) the £75m *(2016: £119m)* profit arising from sales of spare engines to joint ventures;

(10) the £798m of gains resulting from the acquisition of a controlling interest in ITP Aero;

(11) the £163m *(2016: nil)* of advance corporation tax recognised on change of tax legislation;

(12) the £219m impairment of goodwill recognised in 2016;

(13) the £30m loss arising on Civil Aerospace new engine programmes in 2016;

(14) the £671m financial penalties recognised in 2016 from agreements with investigating authorities in connection with alleged historic bribery and corruption involving intermediaries in overseas territories;

(15) the £53m release of accruals in 2016 relating to the termination in prior years of intermediaries services;

(16) the £306m loss recognised in 2016 from the restructuring of the UK pension schemes.

We found that ample disclosure of these items had been provided in the Annual Report and financial statements taken as a whole *(2016 audit finding: ample)*.

H Gains resulting from the acquisition of a controlling interest in Industria De Turbo Propulsores SA (ITP Aero)

Refer to pages 99 and 100 (Audit Committee report – Financial reporting), page 128 (Note 1 to the financial statements – Accounting policies) and page 167 (Note 25 to the financial statements – Acquisitions and disposals)

The risk *(Subjective valuation)* – On 19 December 2017, the Group purchased the outstanding 53.1% of Industria de Turbo Propulsores SA (ITP Aero) that it did not already own. As explained on page 167, given the proximity of the acquisition to the end of the year, the fair values of the assets and liabilities acquired have been assessed on a provisional basis.

Estimating the fair value of the intangible assets of ITP Aero at the date of acquisition involved the use of complex valuation techniques and the estimation of future cash flows over a considerable period of time.

The Group's existing 46.9% shareholding has been remeasured to estimated fair value at the acquisition date and a £553m gain has been recognised in the income statement. As the consideration payable for the remaining interest was established through a contractual mechanism included in the option agreement under which the remaining interest was "put" to the Group, it is not considered to be indicative of a fair value of the existing shareholding. The Group has calculated the fair value of the existing shareholding using a discounted cash flow methodology that involves the use of significant judgement in estimating future cash flows over a considerable period of time, assessing the appropriate discount rate to use and establishing a suitable non-controlling interest discount to deduct from the enterprise value.

Our response – Our procedures, which were carried out in the context of the fair values of the acquired intangible assets only being able to be estimated on a provisional basis, included:

- ***Assessing the valuer's credentials:*** Management engaged a third party expert to assist in identifying ITP Aero's intangible assets and in determining their fair values at the acquisition date. We evaluated the expert's competence and independence and whether it had been appropriately instructed and had been provided with complete, accurate data on which to base its valuations.
- ***Assessing the due diligence provider's credentials:*** Management engaged a third party expert to assist in estimating the future cash flows of ITP Aero to be used in valuing the intangible assets acquired and the existing shareholding in ITP Aero. The third party expert was provided with base data by the management of ITP Aero and subjected this to challenge and derived adjustments to the base cash flows provided by management for use in the valuations. We evaluated the expert's competence and independence and whether it had been appropriately instructed.
- ***Our corporate finance expertise and our sector knowledge:*** We evaluated the basis upon which management identified the intangible assets acquired. We assessed whether the measurement bases used to estimate the fair values of the identified assets were reasonable, taking account of our experience of similar assets in other comparable situations and our assessment of the work performed by the third party expert.
- ***Our corporate finance expertise and our sector knowledge:*** We assessed the basis used by management to value the existing shareholding in ITP Aero. We challenged the appropriateness of the key assumptions underlying the forecast cash flows (including program assumptions and the terminal value growth rate) and compared these to the Group's own forecasts where ITP Aero's and the Group's businesses overlapped. We challenged the discount rate applied and the non-controlling interest discount deducted from the enterprise value in management's valuation. We also assessed whether or not the estimates showed any evidence of management bias.
- ***Assessing transparency:*** We assessed whether the appropriate disclosures have been provided on the judgements and estimates applied in arriving at the fair values.

Our findings – We found that the intangible assets identified were typical of acquisitions of similar businesses and the valuation bases were in accordance with accounting standards. We have no concerns with the basis on which the valuer had been instructed by the Group and found that the valuer was objective and competent and the estimates used in the valuations were balanced. We found that the disclosure regarding the provisional nature of the fair values attributed to the intangible assets was balanced given the timing of the acquisition and limitations on the information ITP Aero could provide to the Group prior to completion of the acquisition.

We found that the basis used to value the existing shareholding in ITP Aero was in accordance with accounting standards and that the key assumptions applied in the valuation were balanced.

I Disclosure of the impact of adopting IFRS 15

Refer to pages 99 and 100 (Audit Committee report – Financial reporting), pages 131 to 132 (Note 1 to the financial statements – Accounting policies – IFRS 15 Revenue from Contracts with Customers) and pages 170 to 171 (Note 27 to the financial statements – Impact of IFRS 15)

The risk *(Accounting treatment and accounting application)* – IFRS 15 *Revenue from Contracts with Customers* will be effective for the year beginning 1 January 2018 and will have a pronounced impact on the recognition of revenue and profit in the Civil Aerospace business. The Group has disclosed the estimated impact of applying the new standard to its 2017 results. The Group's contracts can be complex and there is significant judgement applied in selecting the accounting policies under IFRS 15. There is a risk that the Group has not captured the correct policies in line with the new standard and that not all material areas of potential change have been identified. In addition there is a risk that the policies are not applied appropriately.

Our response – Our procedures included:

- ***Accounting analysis and our sector experience:*** Starting in 2015, we reviewed the process and outputs of the adoption of IFRS 15 impact analysis, evaluated the appropriateness of the key judgements and estimates, and assessed whether the policies adopted are in compliance with IFRS 15. Based on our knowledge of the business and of the impact of adoption of IFRS 15 on other companies with similar businesses, we assessed whether all material areas of potential change under IFRS 15 have been identified. We considered each significant distinct revenue stream and our knowledge of the terms of the contracts to determine the likelihood of there being a material difference between the current treatment and the requirements of IFRS 15. Our analysis covered the whole business but we were particularly focused on the Civil Aerospace business and on the treatment of long-term contracts in other parts of the Group.
- ***Test of details:*** We selected samples of contracts based on a risk assessment of contracts most likely to be affected by IFRS 15 and recalculated the impact of applying the accounting policies developed by the Group.
- ***Assessing transparency:*** We assessed whether the disclosure adequately disclosed the key revenue recognition policies under IFRS 15 and the estimated impact on the 2017 income statement and net assets at 31 December 2017.

Our findings – We found that the Group had carried out an analysis of potential differences between revenue recognition under IFRS 15 and under its current accounting policies commensurate with describing the effect of applying the new standard. We found that the Group had made judgements in developing its IFRS 15 accounting policies that were consistent with a balanced interpretation of the new standard with an objective of faithfully representing the substance of the Group's transactions with its customers. We found that in compiling the estimated impact of applying IFRS 15, the Group had applied those policies consistently to similar transactions. We found the resulting disclosure to be ample.

Recoverability of the parent Company's investment in subsidiaries
(£12 bn; 2016: £12bn)

Refer to page 173 (parent Company financial statements).

The risk *(Low risk, high value)* – The carrying amount of the parent Company's investments in subsidiaries represents 100% (2016: 100%) of its total assets. Their recoverability is not at a high risk of significant misstatement or subject to significant judgement. However, due to their materiality in the context of the parent Company financial statements, this is considered to be the area that had the greatest effect on our audit of the parent Company's financial statements.

Our response – Our procedures included:

- ***Our sector experience:*** Having established that the parent Company owns the whole of the issued share capital of a company that directly or indirectly owns all other group companies, we used our understanding of the sectors in which the Group operates and of the Group's business to identify any potential indicators of impairment of the investment in that company and then carried out analysis to evaluate whether any of these potential indicators of impairment represented an indicator of impairment.

Our findings – We identified some potential indicators of impairment, including the current trading conditions affecting the Commercial Marine business and the parent Company's net assets exceeding the Group's consolidated net assets. We assessed that individually and in aggregate these did not amount to an indicator of impairment.

In reaching our audit opinion on the financial statements we took into account the findings that we describe above and those for other, lower risk areas included in the output from our Dynamic Audit planning tool set out above. Overall the findings from across the whole audit are that the financial statements have been prepared on the basis of appropriate accounting policies, reflect balanced estimates and provide proportionate disclosure. However, having assessed these findings and evaluated uncorrected misstatements in the context of materiality and considered the qualitative aspects of the financial statements as a whole, we have not modified our opinion on the financial statements.

3 Our application of materiality and an overview of the scope of our audit

Materiality

Materiality for the Group financial statements as a whole was set at £40m *(2016: £30m)*, determined with reference to a benchmark of group profit before tax averaged over the last three years, in order to take into account the volatility in profits over this period, and normalised to exclude the impact of gains and losses on revaluation of foreign currency and other derivative financial instruments, which could otherwise result in an inappropriate materiality level being determined. This benchmark was £950m *(2016: £1,039m)* and this materiality measure represents 4.2% *(2016: 2.9%)* of this benchmark and 0.8% *(2016: 0.6%)* of total reported profit/loss before tax. We carry out audit procedures to assess the accuracy of the gains and losses on these derivative financial instruments (which this year amounted to a £2.6bn gain *(2016: £4.4bn loss)*) as part of our audit of the Group's treasury operations.

Materiality for the parent Company financial statements as a whole was set at £36m *(2016: £27m)*, determined with reference to a benchmark of net assets, of which it represents 0.3% *(2016: 0.2%)*, as the parent Company is treated as a component for the purposes of the audit of the Group financial statements.

We agreed to report to the Audit Committee (i) all material corrected identified misstatements; (ii) uncorrected identified misstatements exceeding £2m *(2016: £1.5m)* for income statement items; and (iii) other identified misstatements that warranted reporting on qualitative grounds.

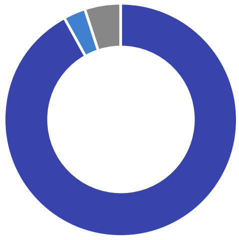
The scope of our audit

Of the Group's 367 reporting components, we subjected 25 *(2016: 34)* to full scope audits for group purposes and 7 *(2016: 13)* to specified risk-focused audit procedures. The latter were not individually financially significant enough to require a full scope audit for group purposes, but did present specific individual risks that needed to be addressed. This work also provided further audit coverage.

The components within the scope of our work accounted for the percentages illustrated opposite.

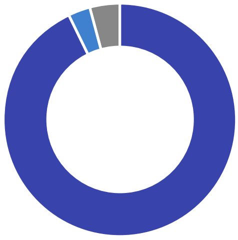
The remaining 5% of total group revenue, 4% of group profit before tax and 5% of total group assets is represented by 335 reporting components, none of which individually represented more than 0.8% of any of total group revenue, group profit before tax or total group assets. For these residual components, we performed analysis at an aggregated group level to re-examine our assessment that there were no significant risks of material misstatement within these.

Revenue



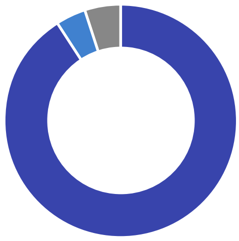
- **92%** (2016: 94%)
- **3%** (2016: 5%)
- **5%** (2016: 1%)

Underlying profit before tax



- **93%** (2016: 89%)
- **3%** (2016: 8%)
- **4%** (2016: 3%)

Total assets



- **91%** (2016: 89%)
- **4%** (2016: 8%)
- **5%** (2016: 3%)

- Audit for group reporting purposes
- Specified risk-focused audit procedures
- Group-level procedures only

The Group operates shared service centres for the bulk processing of financial transactions in Derby (UK), Indianapolis (US) and Singapore, the outputs of which are included in the financial information of the reporting components they service and therefore they are not separate reporting components. Each of the service centres is subject to specified risk-focused audit procedures, predominantly the testing of transaction processing and review controls. Additional audit procedures are performed at certain reporting components to address the audit risks not covered by the work performed over the shared service centres.

The work on 21 of the 32 components *(2016: 19 of the 47 components)* was performed by component audit teams and the rest, including the audit of the parent Company, was performed by the Group audit team. The Group audit team instructed component auditors and the audit teams of the shared service centres as to the significant areas to be covered (including the relevant risks detailed above), the audit approach to be taken on significant risks and the information to be reported to the Group audit team. The Group audit team set the materiality to be used for each component audit, which ranged from £1.4m to £30m *(2016: £0.2m to £30m)*, having regard to the mix of size and risk profile of the components.

The Group audit team maintained close contact with the audit teams on the more significant components through weekly telephone conference meetings and other ad hoc communications and the Group team visited 20 *(2016: 33)* locations in UK, the US, Germany and Scandinavia meeting with the component audit teams and component management. The purpose of these communications was to update the Group team's understanding of the components' business and related risks of material misstatement and to monitor progress of the audit.

For the more significant components (18 components contributing 88% of revenue and 70% profit before tax), the Group audit team received reporting on audit findings and participated in Sector Audit Committee meetings and closing meetings with component management. Towards the conclusion of each component audit, the Group audit team met the component audit teams (either face to face or on a telephone conference) and discussed the findings reported to the Group audit team in more detail and reviewed and evaluated the audit work of each component audit team on significant audit risks and other relevant areas. Any further work required by the Group audit team was then performed by the component audit team.

The Group audit team communicated the independence and other ethical requirements that apply to the audit to component audit teams. Throughout the year, the Group audit team assessed each non-audit service that the Group requested KPMG undertake worldwide and only approved the service once it was established that the service was permissible under auditor independence regulations and had been pre-approved by the Audit Committee.

4 We have nothing to report on going concern

We are required to report to you if:

- we have anything material to add or draw attention to in relation to the directors' statement in Note 1 to the financial statements on the use of the going concern basis of accounting with no material uncertainties that may cast significant doubt over the Group and Company's use of that basis for a period of at least twelve months from the date of approval of the financial statements; or
- the related statement under the Listing Rules set out on page 63 is materially inconsistent with our audit knowledge.

We have nothing to report in these respects.

5 We have nothing to report on the other information in the Annual Report

The directors are responsible for the other information presented in the Annual Report together with the financial statements. Our opinion on the financial statements does not cover this other information and, accordingly, we do not express an audit opinion or, except as explicitly stated below, any form of assurance conclusion thereon.

Our responsibility is to read the other information and, in doing so, consider whether, based on our financial statements audit work, the information therein is materially misstated or inconsistent with the financial statements or our audit knowledge. Based solely on that work we have not identified material misstatements in the other information.

Strategic report and directors' report

Based solely on our work on the other information:

- we have not identified material misstatements in the strategic report and the directors' report;
- in our opinion the information given in those reports for the financial year is consistent with the financial statements; and
- in our opinion those reports have been prepared in accordance with the Companies Act 2006.

Directors' remuneration report
In our opinion the part of the Directors' Remuneration Report to be audited has been properly prepared in accordance with the Companies Act 2006.

Disclosures of principal risks and longer-term viability
Based on the knowledge we acquired during our financial statements audit, we have nothing material to add or draw attention to in relation to:

- the directors' confirmation within the Compliance with the UK Corporate Governance Code 2016 Statement (page 77) that they have carried out a robust assessment of the principal risks facing the Group, including those that would threaten its business model, future performance, solvency and liquidity;
- the Principal Risks disclosures (pages 59 to 62) describing these risks and explaining how they are being managed and mitigated; and
- the directors' explanation in the Going Concern and Viability Statements (page 63) of how they have assessed the prospects of the Group, over what period they have done so and why they considered that period to be appropriate, and their statement as to whether they have a reasonable expectation that the Group will be able to continue in operation and meet its liabilities as they fall due over the period of their assessment, including any related disclosures drawing attention to any necessary qualifications or assumptions.

Under the Listing Rules we are required to review the Going Concern and Viability Statements (page 63). We have nothing to report in this respect.

Corporate governance disclosures
We are required to report to you if:

- we have identified material inconsistencies between the knowledge we acquired during our financial statements audit and the directors' statement that they consider that the Annual Report and financial statements taken as a whole is fair, balanced and understandable and provides the information necessary for shareholders to assess the Group's position and performance, business model and strategy (page 114); or
- the section of the Annual Report describing the work of the Audit Committee (pages 97 to 103) does not appropriately address matters communicated by us to the Audit Committee.

We are required to report to you if the Compliance with the UK Corporate Governance Code 2016 Statement (pages 77 and 78) does not properly disclose a departure from the eleven provisions of the UK Corporate Governance Code specified by the Listing Rules for our review.

We have nothing to report in these respects.

6 We have nothing to report on the other matters on which we are required to report by exception
Under the Companies Act 2006, we are required to report to you if, in our opinion:

- adequate accounting records have not been kept by the parent Company, or returns adequate for our audit have not been received from branches not visited by us; or
- the parent Company financial statements and the part of the Directors' Remuneration Report to be audited are not in agreement with the accounting records and returns; or
- certain disclosures of directors' remuneration specified by law are not made; or
- we have not received all the information and explanations we require for our audit.

We have nothing to report in these respects.

7 Respective responsibilities

Directors' responsibilities
As explained more fully in their statement set out on page 114, the directors are responsible for: the preparation of the financial statements including being satisfied that they give a true and fair view; such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error; assessing the Group and parent Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern; and using the going concern basis of accounting unless they either intend to liquidate the Group or the parent Company or to cease operations, or have no realistic alternative but to do so.

Auditor's responsibilities
Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or other irregularities (see below), or error, and to issue our opinion in an auditor's report. Reasonable assurance is a high level of assurance, but does not guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud, other irregularities or error and are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

A fuller description of our responsibilities is provided on the FRC's website at www.frc.org.uk/auditorsresponsibilities.

Ability to detect irregularities
We identified areas of laws and regulations that could reasonably be expected to have a material effect on the financial statements from our sector experience, through discussion with the directors and other management personnel (as required by ISAs (UK)), and from inspection of the Group's regulatory and legal correspondence.

We had regard to laws and regulations in areas that directly affect the financial statements including those relating to financial reporting (and related company legislation) and taxation. We considered the extent of compliance with those laws and regulations as part of our procedures on the related financial statements items.

In addition, we considered the impact of laws and regulations in the specific areas of civil aviation safety, export control, defence contracting and anti-bribery and corruption legislation recognising the financial and regulated nature of the Group's activities. With the exception of any known or possible non-compliance identified in the course of our audit, as required by ISAs (UK), our work in respect of these areas was limited to enquiry of the directors and other management personnel and inspection of regulatory and legal correspondence. We considered the effect of any known or possible non-compliance in these areas as part of our procedures on the related financial statements items.

Additional considerations in respect of bribery and corruption are set out in the key audit matter disclosures in section 2 of this report.

We communicated these identified areas of laws and regulations throughout our team and remained alert to any indications of non-compliance throughout the audit. This included communication from the Group audit team to component audit teams of relevant laws and regulations identified at group level, with a request to report on any indications of the potential existence of non-compliance with relevant laws and regulations ("irregularities") in these areas, or other areas directly identified by the component team.

As with any audit, there remained a higher risk of non-detection of irregularities, as these may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal controls.

8 The purpose of our audit work and to whom we owe our responsibilities

This report is made solely to the parent Company's members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006 and the terms of our engagement by the parent Company. Our audit work has been undertaken so that we might state to the parent Company's members those matters we are required to state to them in an auditor's report and the further matters we are required to state to them in accordance with the terms agreed with the parent Company and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the parent Company and the parent Company's members, as a body, for our audit work, for this report, or for the opinions we have formed.

Jimmy Daboo (Senior Statutory Auditor)
for and on behalf of KPMG LLP, Statutory Auditor

Chartered Accountants
15 Canada Square
London E14 5GL
6 March 2018

Sustainability Assurance Statement

To: the stakeholders of Rolls-Royce Holdings plc

Independent limited assurance statement

Introduction and objectives of work

Bureau Veritas UK Limited (Bureau Veritas) has been engaged by Rolls-Royce Holdings plc (Rolls-Royce) to provide limited assurance over selected sustainability performance indicators for inclusion in its 2017 Annual Report and website. This assurance statement applies to the related information included within the scope of work described below.

Scope of work

The scope of our work was limited to assurance over the following information included within the Rolls-Royce Holdings plc 2017 Annual Report (the Report) for the period 1 January to 31 December 2017 (the selected information):

- energy consumption;
- scope 1 and scope 2 greenhouse gas (GHG) emissions;
- total reportable injury (TRI) rate; and
- the number of people reached through the science, technology, engineering and mathematics (STEM) education outreach programmes.

Reporting criteria

The selected information are reported according to the Rolls-Royce basis of reporting document, as set out at www.rolls-royce.com/sustainability.

Limitations and exclusions

Excluded from the scope of our work is any verification of information relating to:

- activities outside the defined verification period; and
- other information included in the Report.

This limited assurance engagement relies on a risk-based selected sample of sustainability data and the associated limitations that this entails. This independent statement should not be relied upon to detect all errors, omissions or misstatements that may exist.

Responsibilities

This preparation and presentation of the selected information in the Report are the sole responsibility of the management of Rolls-Royce.

Bureau Veritas was not involved in the drafting of the Report or of the reporting criteria. Our responsibilities were to:

- obtain limited assurance about whether the selected information has been prepared in accordance with the reporting criteria;
- form an independent conclusion based on the assurance procedures performed and evidence obtained; and
- report our conclusions to the management of Rolls-Royce.

Assessment standard

We performed our work in accordance with International Standard on Assurance Engagements (ISAE) 3000 Revised, Assurance Engagements Other than Audits or Reviews of Historical Financial Information (effective for assurance reports dated on or after 15 December 2015), and in accordance with International Standard on Assurance Engagements (ISAE) 3410, Assurance Engagements on Greenhouse Gas Statements, issued by the International Auditing and Assurance Standards Board.

Summary of work performed

As part of its independent verification, Bureau Veritas undertook the following activities:

- assessed the appropriateness of the reporting criteria for the selected information;
- conducted interviews with relevant personnel of Rolls-Royce;
- carried out nine site visits, selected employing a risk-based approach, in the UK, US, Germany, Italy, Norway and Singapore;
- reviewed the data collection and consolidation processes used to compile the selected information, including assessing assumptions made, the data scope and reporting boundaries;
- reviewed documentary evidence produced by Rolls-Royce;
- agreed a selection of the selected information to the corresponding source documentation; and
- re-performed aggregation calculations of the selected information.

Conclusion

On the basis of our methodology and the activities described above, nothing has come to our attention to indicate that the selected information has not been properly prepared, in all material respects, in accordance with the reporting criteria.

Statement of independence, integrity and competence

Bureau Veritas is an independent professional services company that specialises in quality, environmental, health, safety and social accountability with over 185 years' history. Its assurance team has extensive experience in conducting verification over environmental, social, ethical and health and safety information, systems and processes.

Bureau Veritas operates a certified[1] Quality Management System which complies with the requirements of ISO 9001:2008, and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Bureau Veritas has implemented and applies a Code of Ethics, which meets the requirements of the International Federation of Inspections Agencies (IFIA)[2] across the business to ensure that its employees maintain integrity, objectivity, professional competence and due care, confidentiality, professional behaviour and high ethical standards in their day-to-day business activities.

The assurance team for this work does not have any involvement in any other Bureau Veritas projects with Rolls-Royce.

Bureau Veritas UK Limited
London
6 February 2018

BUREAU VERITAS

[1] Certificate of Registration FS 34143 issued by BSI Assurance UK Limited.
[2] International Federation of Inspection Agencies – Compliance Code – Third Edition

Other Financial Information

Foreign exchange

Foreign exchange rate movements influence the reported income statement, the cash flow and closing net funds balance. The average and spot rates for the principal trading currencies of the Group are shown in the table below:

		2017	2016	Change
USD per GBP	Year end spot rate	**1.35**	1.23	+10%
	Average spot rate	**1.29**	1.36	-5%
EUR per GBP	Year end spot rate	**1.13**	1.17	-3%
	Average spot rate	**1.14**	1.22	-7%

The Group's global corporate income tax contribution

Around 95% of the Group's underlying profit before tax (excluding joint ventures and associates) is generated in the UK, the US, Germany, Norway, Finland and Singapore. The remaining profits are generated across more than 40 other countries. This reflects the fact that the majority of the Group's business is undertaken, and employees are based, in the above countries.

In common with most multinational groups, the total of all profits in respect of which corporate income tax is paid is not the same as the consolidated profit before tax reported on page 116. The main reasons for this are:

(i) the Consolidated Income Statement is prepared under Adopted IFRS whereas tax is paid on the profits of each Group company, which are determined by local accounting rules;

(ii) accounting rules require certain income and costs relating to our commercial activities to be eliminated from, or added to, the aggregate of all the profits of the Group companies when preparing the Consolidated Income Statement ('consolidation adjustments'); and

(iii) specific tax rules including exemptions or incentives as determined by the tax laws in each country.

The Group's total corporation tax payments in 2017 were £180m. The level of tax paid in each country is impacted by the above. In most cases, (i) and (ii) are only a matter of timing and therefore tax will be paid in an earlier or later year. As a result, they only have a negligible impact on the Group's underlying tax rate, which excluding joint ventures and associates would be 34.9% (2016: 37.5%). The underlying tax rate including joint ventures and associates can be found on pages 19 and 50. This is due to deferred tax accounting, details of which can be found in note 5 to the Consolidated Financial Statements. The impact of (iii) will often be permanent depending on the relevant tax law.

Further information on the tax position of the Group can be found as follows:

- Audit Committee report (page 99) – The group tax director gave a presentation to the Audit Committee during the year which covered various matters including tax risks and how they are managed;
- Note 1 to the Consolidated Financial Statements (pages 125 and 127) – Details of key areas of uncertainty and accounting policies for tax; and
- Note 5 to the Consolidated Financial Statements (pages 138 to 140) – Details of the tax balances in the Consolidated Financial Statements together with a tax reconciliation. This explains the main drivers of the tax rate.

At this stage we expect these items to continue to influence the underlying tax rate. The reported tax rate is more difficult to forecast due to the impact of significant adjustments to reported profits, in particular the net unrealised fair value changes to derivative contracts and the recognition of advance corporation tax.

Information on the Group's approach to managing its tax affairs can be found at www.rolls-royce.com/sustainability.

Investments and capital expenditure

The Group subjects all major investments and capital expenditure to a rigorous examination of risks and future cash flows to ensure that they create shareholder value. All major investments, including the launch of major programmes, require Board approval.

The Group has a portfolio of projects at different stages of their lifecycles. Discounted cash flow analysis of the remaining life of projects is performed on a regular basis.

Sales of engines in production are assessed against criteria in the original development programme to ensure that overall value is enhanced.

Financial risk management

The Board has established a structured approach to financial risk management. The Financial risk committee (Frc) is accountable for managing, reporting and mitigating the Group's financial risks and exposures. These risks include the Group's principal counterparty, currency, interest rate, commodity price, liquidity and credit rating risks outlined in more depth in note 17. The Frc is chaired by the Chief Financial Officer. The Group has a comprehensive financial risk policy that advocates the use of financial instruments to manage and hedge business operations risks that arise from movements in financial, commodities, credit or money markets. The Group's policy is not to engage in speculative financial transactions. The Frc sits quarterly to review and assess the key risks and agree any mitigating actions required.

Capital structure

£m	2017	2016
Total equity	5,849	1,864
Cash flow hedges	112	107
Group capital	5,961	1,971
Net funds	(305)	(225)

Operations are funded through various shareholders' funds, bank borrowings, bonds and notes. The capital structure of the Group reflects the judgement of the Board as to the appropriate balance of funding required. Funding is secured by the Group's continued access to the global debt markets. Borrowings are funded in various currencies using derivatives where appropriate to achieve a required currency and interest rate profile. The Board's objective is to retain sufficient financial investments and undrawn facilities to ensure that the Group can both meet its medium-term operational commitments and cope with unforeseen obligations and opportunities.

The Group holds cash and short-term investments which, together with the undrawn committed facilities, enable it to manage its liquidity risk.

During the year, the Group extended the maturity of the £1,500m committed bank borrowing facility from 2021 to 2022 and extended the maturity of the £500m committed bank borrowing facility from 2019 to 2020. Both of these facilities were undrawn at the period end. Also during 2017, the Group drew a committed loan of £280m, maturing in 2024. At the year end, the Group retained aggregate liquidity of £5.1bn, including cash and cash equivalents of £3.0bn and undrawn borrowing facilities of £2.1bn. Circa £80m of borrowings mature in 2018 and £745m in 2019.

The maturity profile of the borrowing facilities is regularly reviewed to ensure that refinancing levels are manageable in the context of the business and market conditions. There are no rating triggers in any borrowing facility that would require the facility to be accelerated or repaid due to an adverse movement in the Group's credit rating. The Group conducts some of its business through a number of joint ventures. A major proportion of the debt of these joint ventures is secured on the assets of the respective companies and is non-recourse to the Group. This debt is further outlined in note 11.

Credit rating

	Rating	Outlook	Grade
Moody's Investors Service	A3	Negative	Investment
Standard & Poor's	BBB+	Stable	Investment

The Group subscribes to both Moody's Investors Service and Standard & Poor's for independent long-term credit ratings. At the date of this report, the Group maintained investment grade ratings from both agencies.

As a capital-intensive business making long-term commitments to its customers, the Group attaches significant importance to maintaining or improving the current investment grade credit ratings.

Accounting

The Consolidated Financial Statements have been prepared in accordance with International Financial Reporting Standards (IFRS), as adopted by the EU.

No new accounting standards had a material impact in 2017. The impacts of changes to IFRS, in particular IFRS 15 *Revenue from Contracts with Customers* and IFRS 9 *Financial Instruments* which are effective from 1 January 2018 are included within the accounting policies in note 1.

Share price

During the year, the share price increased by 27% from 668p to 847p, compared to a 5% increase in the FTSE aerospace and defence sector and a 8% increase in the FTSE 100. The Company's share price ranged from 640p in January 2017 to 981p in November 2016.

Other Statutory Information

Share capital

On 31 December 2017 the Company's issued share capital comprised of:

1,840,597,108	Ordinary shares	20p each
28,429,035,421	C Shares	1p each
1	Special Share	£1

The ordinary shares are listed on the London Stock Exchange.

Payment to shareholders

The Company issues non-cumulative redeemable preference shares (C Shares) as an alternative to paying a cash dividend.

Shareholders can choose to:

- redeem all C Shares for cash;
- redeem all C Shares for cash and reinvest the proceeds in the C Share Reinvestment Plan (CRIP); or
- keep the C Shares.

The CRIP is operated by Computershare Investor Services PLC (the Registrar). The Registrar will purchase ordinary shares in the market for shareholders electing to reinvest their C Share proceeds. Shareholders wishing to participate in the CRIP or redeem their C Shares in July 2018 must ensure that their instructions are lodged with the Registrar no later than 5.00pm (BST) on 1 June 2018 (CREST holders must submit their election in CREST before 3.00pm (BST) on 1 June 2018). Redemption will take place on 5 July 2017.

At the 2018 AGM, the Directors will recommend an issue of 71 C Shares with a total nominal value of 7.1p for each ordinary share. The C Shares will be issued on 2 July 2018 to shareholders on the register on 27 April 2018 and the final day of trading with entitlement to C Shares is 25 April 2018. Together with the interim issue on 3 January 2018 of 46 C Shares for each ordinary share with a total nominal value of 4.6p, this is the equivalent of a total annual payment to ordinary shareholders of 11.7p for each ordinary share.

Further information for shareholders is on pages 202 and 203.

Share class rights

The full share class rights are set out in the Company's Articles of Association (Articles), which are available at www.rolls-royce.com. The rights are summarised below.

Ordinary shares

Each member has one vote for each ordinary share held. Holders of ordinary shares are entitled to: receive the Company's Annual Report; attend and speak at general meetings of the Company; appoint one or more proxies or, if they are corporations, corporate representatives; and exercise voting rights. Holders of ordinary shares may receive a bonus issue of C Shares or a dividend and on liquidation may share in the assets of the Company.

C Shares

C Shares have limited voting rights and attract a preferential dividend of 75% of LIBOR on the 0.1p nominal value of each share, paid on a twice-yearly basis. The Company has the option to redeem the C Shares compulsorily, at any time if: the aggregate number of C Shares in issue is less than 10% of the aggregate number of all C Shares issued on or prior to that time or the event of a capital restructuring of the Company; the introduction of a new holding company; the acquisition of the Company by another company; or a demerger from the Group.

On a return of capital on a winding-up, the holders of C Shares shall be entitled, in priority to any payment to the holders of ordinary shares, to the repayment of the nominal capital paid-up or credited as paid-up on the C Shares held by them, together with a sum equal to the outstanding preferential dividend which will have been accrued but not been paid until the date of return of capital.

The holders of C Shares are only entitled to attend, speak and vote at a general meeting if a resolution to wind up the Company is to be considered, in which case they may vote only on that resolution.

Special Share

Certain rights attach to the special rights non-voting share (Special Share) issued to the UK Secretary of State for Business, Energy & Industrial Strategy (Special Shareholder). These rights are set out in the Articles. Subject to the provisions of the Companies Act 2006 (the Act), the Treasury Solicitor may redeem the Special Share at par value at any time. The Special Share confers no rights to dividends but in the event of a winding-up it shall be repaid at its nominal value in priority to any other shares.

Certain Articles (in particular those relating to the foreign shareholding limit, disposals and the nationality of the Company's Directors) that relate to the rights attached to the Special Share may only be altered with the consent of the Special Shareholder. The Special Shareholder is not entitled to vote at any general meeting or any other meeting of any class of shareholders.

Restrictions on transfer of shares and limitations on holdings

There are no restrictions on transfer or limitations on the holding of the ordinary shares or C Shares other than under the Articles (as described here), under restrictions imposed by law or regulation (for example, insider trading laws) or pursuant to the Company's share dealing code. The Articles provide that the Company should be and remain under UK control. As such, an individual foreign shareholding limit is set at 15% of the aggregate votes attaching to the share capital of all classes (taken as a whole) and capable of being cast on a poll and to all other shares that the Directors determine are to be included in the calculation of that holding. The Special Share may only be issued to, held by and transferred to the Special Shareholder or his successor or nominee.

Shareholder agreements and consent requirements

The Company and Bradley Singer are party to a relationship agreement with ValueAct (a summary of which can be found at www.rolls-royce.com). The agreement will expire on 3 May 2018 but will be replaced with a new agreement covering treatment of confidential information and conflicts of interest only.

No disposal may be made to a non-Group member which, alone or when aggregated with the same or a connected transaction, constitutes a disposal of the whole or a material part of either the nuclear propulsion business or the assets of the Group as a whole, without the consent of the Special Shareholder.

Authority to issue shares

At the AGM in 2017, authority was given to the Directors to allot new C Shares up to a nominal value of £500m as an alternative to a cash dividend.

In addition, a special resolution was passed authorising the Directors to allot new ordinary shares up to a nominal value of £122,588,225 equivalent to one-third of the issued share capital of the Company. This resolution also authorised the Directors to allot up to two thirds of the total issued share capital of the Company, but only in the case of a rights issue.

A further special resolution was passed to effect a disapplication of pre-emption rights for a maximum of 5% of the issued share capital of the Company.

These authorities are valid until the AGM in 2018, and the Directors propose to renew each of them at that AGM. The Board believes that these authorities will allow the Company to retain flexibility to respond to circumstances and opportunities as they arise.

Authority to purchase own shares

At the AGM in 2017, the Company was authorised by shareholders to purchase up to 183,882,337 of its own ordinary shares representing 10% of its issued ordinary share capital.

The authority for the Company to purchase its own shares expires at the conclusion of the AGM in 2018 or 15 months from 4 May 2017, whichever is the earlier. A resolution to renew it will be proposed at the 2018 meeting.

Deadlines for exercising voting rights

Electronic and paper proxy appointments, and voting instructions, must be received by the Registrar not less than 48 hours before a general meeting.

Voting rights for employee share plan shares

Shares are held in an employee benefit trust for the purpose of satisfying awards made under the various employee share plans. For shares held in a nominee capacity or if plan/trust rules provide the participant with the right to vote in respect of specifically allocated shares, the trustee votes in line with the participants' instructions. For shares that are not held absolutely on behalf of specific individuals, the general policy of the trustees, in accordance with investor protection guidelines, is to abstain from voting in respect of those shares.

Change of control

Contracts and joint venture agreements

There are a number of contracts and joint venture agreements which would allow the counterparties to terminate or alter those arrangements in the event of a change of control of the Company. These arrangements are commercially confidential and their disclosure could be seriously prejudicial to the Company.

Borrowings and other financial instruments

The Group has a number of borrowing facilities provided by various banks. These facilities generally include provisions which may require any outstanding borrowings to be repaid or the alteration or termination of the facility upon the occurrence of a change of control of the Company. At 31 December 2017, these facilities were less than 22% drawn (2016: 15%).

The Group has entered into a series of financial instruments to hedge its currency, interest rate and commodity exposures. These contracts provide for termination or alteration in the event that a change of control of the Company materially weakens the creditworthiness of the Group.

Employee share plans

In the event of a change of control of the Company, the effect on the employee share plans would be as follows:

- PSP – awards would vest pro rata to service in the performance period, subject to Remuneration Committee judgement of Group performance.
- APRA deferred shares – the shares would be released from trust immediately.
- Sharesave – options would become exercisable immediately. The new controlling company might offer an equivalent option in exchange for cancellation of the existing option.
- Share Incentive Plan (SIP) – consideration received as shares would be held within the SIP, if possible, otherwise the consideration would be treated as a disposal from the SIP.
- LTIP – awards would vest on the change of control, subject to the Remuneration Committee's judgement of performance and may be reduced pro rata to service in the vesting period. Any applicable holding period will cease in the event of a change in control.

Major shareholdings

At 6 March 2018 the following shareholders had notified an interest in the issued ordinary share capital of the Company in accordance with the DTR.

Shareholder	Date notified	% of issued ordinary share capital
ValueAct Capital Master Fund, L.P.	1 February 2018	10.94
The Capital Group Companies, Inc.	13 October 2017	5.07
Credit Suisse Group AG	3 May 2017	3.91

Directors

The names of the Directors who held office during the year are set out on page 70.

Disclosures in the Strategic Report

The Board has taken advantage of Section 414C(11) of the Act to include disclosures in the Strategic Report including:

- employee involvement;
- the future development, performance and position of the Group;
- the financial position of the Group;
- R&D activities; and
- the principal risks and uncertainties.

Political donations

The Group's policy is not to make political donations and therefore did not donate any money to any political party during the year. However, it is possible that certain activities undertaken by the Group may unintentionally fall within the broad scope of the provisions contained in the Act. The resolution to be proposed at the AGM, authorising political donations and expenditure, is to ensure that the Group does not commit any technical breach of the Act.

During the year, expenses incurred by Rolls-Royce North America, Inc. in providing administrative support for the Rolls-Royce North America political action committee (PAC) was US$118,104 (2016: US$42,742). PACs are a common feature of the US political system and are governed by the Federal Election Campaign Act.

The PAC is independent of the Group and independent of any political party. The PAC funds are contributed voluntarily by employees and the Group cannot affect how they are applied, although under US law, the business expenses are paid by the employee's company. Such contributions do not count towards the limits for political donations and expenditure for which shareholder approval will be sought at this year's AGM to renew the authority given at the 2017 AGM.

Greenhouse gas emissions

In 2017, our total greenhouse gas (GHG) emissions were 715 kilotonnes carbon dioxide equivalent ($ktCO_2e$). This represents a increase of 1% compared with 705 $ktCO_2e$ in 2016. This is a result of increased production and product testing as new engine variants enter service.

We have revised our total GHG emissions for 2016 to reflect the actual figures for the full year, rather than estimated figures prepared in line with our basis of reporting. This revision is not material (< ±5%) but does impact the year-on-year trend.

We have included the reporting of fugitive emissions of hydroflurocarbons (HFCs), associated with air conditioning equipment, into our GHG emissions figures for 2016 and 2017. These include emissions from our facilities in the UK, US, Canada and France only. We do not anticipate that emissions from other facilities will have a material impact. Figures from prior years (2013 to 2015) exclude emissions associated with HFCs.

Total GHG emissions ($ktCO_2e$)	2013 */**	2014	2015☑	2016☑	2017☑
Direct emissions (Scope 1)	394	456	374	368	**379**
Indirect emissions (Scope 2)	325	396	375	336	**336**
Total emissions (Scope 1 + Scope 2)	719	852	749	704	**715**
Intensity ratio (total emissions normalised by revenue) ($ktCO_2e$/£m)	0.063	0.062	0.055	0.047	**0.043**

* Figures for 2013 do not include GHG emissions associated with Power Systems and therefore are not directly comparable.
** The intensity ratio for 2013 has been restated to reflect the exclusion of revenues associated with Power Systems.
☑ We engaged Bureau Veritas to undertake a limited assurance engagement, reporting to Rolls-Royce Holdings plc, using the assurance standards ISAE 3000 and ISAE 3410 over the energy, GHG, TRI rate and STEM data that has been highlighted with ☑ and as set out on pages 44 to 48 and in the table above. The sustainability assurance statement is included on page 195.

With the exceptions noted above, we have reported on all of the emission sources required under the Companies Act 2006 (Strategic Report and Directors' Report) Regulations 2013. These sources fall within our Consolidated Financial Statements. We do not have responsibility for any emission sources that are not included in our Consolidated Financial Statements.

We have used the GHG Protocol Corporate Accounting and Reporting Standard (revised edition) as of 31 December 2014, data gathered to fulfil our requirements under the Carbon Reduction Commitment (CRC) Energy Efficiency scheme, and emission factors from the UK Government's GHG Conversion Factors for Company Reporting 2016.

Further details on our methodology for reporting and the criteria used can be found within our basis of reporting, available to download at www.rolls-royce.com/sustainability.

Branches

Rolls-Royce is a global company and our activities and interests are operated through subsidiaries, branches of subsidiaries, joint ventures and associates which are subject to the laws and regulations of many different jurisdictions. Our subsidiaries, joint ventures and associates are listed on pages 175 to 182.

ITP Aero post balance sheet events

Following approval from the relevant authorities in Spain in December 2017, the Company has now concluded the acquisition of a 53.1% shareholding in ITP Aero from SENER resulting in ITP Aero becoming a wholly-owned subsidiary of the Company. The consideration of €718m will be settled over a two-year payment period, payable in eight equal instalments, and the agreement with SENER allows the Company flexibility to settle up to 100% of the consideration in the form of ordinary shares. The first instalment was settled by issuing 9,612,581 ordinary shares on 15 January 2018 and the Company has notified SENER of its intention to settle the second instalment in the form of ordinary shares. Final consideration as to whether the remaining six instalments will be settled in the form of cash or ordinary shares will be determined by the Company during the remaining payment period.

Financial instruments

Details of the Group's financial instruments are set out in note 17 to the Consolidated Financial Statements.

Related party transactions

Related party transactions are set out in note 24 to the Consolidated Financial Statements.

Information required by UK Listing Rule (LR) 9.8.4

There are no disclosures to be made under LR 9.8.4.

Management report

The Strategic Report and the Directors' Report together are the management report for the purposes of Rule 4.1.8R of the DTR.

Disclosure of information to auditors

Each of the persons who is a Director at the date of approval of this report confirms that:

- So far as the Director is aware, there is no relevant audit information of which the Company's auditor is unaware. The Director has taken all steps that he or she ought to have taken as a director in order to make himself or herself aware of any relevant audit information and to establish that the Company's auditor is aware of that information.

This confirmation is given, and should be interpreted, in accordance with the provisions of section 418 of the Act.

Shareholder Information

Financial calendar 2018-2019

Month	Dates
APR 2018	**26 APRIL** Ex-entitlement to C Shares **27 APRIL** Record date for entitlement to C Shares
MAY 2018	**3 MAY 11.00AM** AGM Pride Park Stadium Pride Park Derby DE24 8XL
JUN 2018	**1 JUNE 5.00PM** Deadline for receipt by Registrar of C Share instructions (3.00pm for CREST holders) **4 JUNE** Record date for cash dividend on C Shares
JUL 2018	**2 JULY** Allotment of C Shares **3 JULY** Payment of cash dividend on C Shares **5 JULY** Payment of C Share redemption monies **23 JULY** New share certificates issued (at the latest)
AUG 2018	**1 AUGUST** Announcement of half-year results
SEP 2018	
OCT 2018	**25 OCTOBER** Ex-entitlement to C Shares **26 OCTOBER** Record date for entitlement to C Shares
NOV 2018	**16 NOVEMBER** Record date for cash dividend on C Shares
DEC 2018	**3 DECEMBER 5.00PM** Deadline for receipt by Registrar of C Share instructions (3.00pm for CREST holders) **31 DECEMBER** Financial year end
JAN 2019	**3 JANUARY** Allotment of C Shares **3 JANUARY** Payment of cash dividend on C Shares **7 JANUARY** Payment of C Share redemption monies **21 JANUARY** New share certificates issued (at the latest)
FEB 2019 / MAR 2019	**FEBRUARY/ MARCH** Announcement of full-year results and Annual Report published

Managing your shareholding

Your shareholding is managed by Computershare Investor Services PLC (the Registrar). When making contact with the Registrar please quote your Shareholder Reference Number (SRN), a 10-digit number prefixed with the letter 'C' that can be found on the right-hand side of your share certificate or in any other shareholder correspondence. It is very important that you keep your shareholding account details up to date by notifying the Registrar of any changes in your circumstances.

You can manage your shareholding at www.investorcentre.co.uk, speak to the Registrar on +44 (0)370 703 0162 (8.30am to 5.30pm Monday to Friday) or you can write to the Registrar at Computershare Investor Services PLC, The Pavilions, Bridgwater Road, Bristol BS13 8AE.

Payments to shareholders

The Company makes payments to shareholders by issuing redeemable C Shares of 0.1p each. You can redeem C Shares for cash and either take the cash or reinvest the cash to purchase additional ordinary shares providing you complete a payment instruction form, which is available from the Registrar. Once you have submitted your payment instruction form, you will receive cash or additional ordinary shares each time the Company issues C Shares. If you choose to receive cash we strongly recommend that you include your bank details on the payment instruction form and have payments credited directly to your bank account. This removes the risk of a cheque going astray and means that cleared payments will be credited to your bank account on the payment date.

Share dealing

The Registrar offers shareholders an internet dealing service available from its website www.computershare.co.uk and a telephone dealing service (+44 (0)370 703 0084). Real-time dealing is available during market hours, 8.00am to 4.30pm, Monday to Friday excluding bank holidays. Orders can still be placed outside of market hours. The fee for internet dealing is 1% of the transaction value subject to a minimum fee of £30. The fee for telephone dealing is 1% of the transaction value plus £35. Stamp duty of 0.5% is payable on all purchases. This service is only available to shareholders resident in certain jurisdictions. Before you can trade you must register to use the service. Other share dealing facilities are available but you should always use a firm regulated by the FCA (see www.fca.org.uk/register).

Your share certificate

Your share certificate is an important document. If you sell or transfer your shares you must make sure that you have a valid share certificate in the name of Rolls-Royce Holdings plc. If you place an instruction to sell your shares and cannot provide a valid share certificate, the transaction cannot be completed and you may be liable for any costs incurred by the broker. If you are unable to find your share certificate please inform the Registrar immediately.

American Depositary Receipts (ADR)

ADR holders should contact the depositary, JP Morgan, by calling +1 (800) 990 1135 (toll free within the US) or emailing adr@jpmorgan.com.

Warning to shareholders – investment scams

We are aware that some of our shareholders have received unsolicited telephone calls or correspondence, offering to buy or sell their shares at very favourable terms. The callers can be very persuasive and extremely persistent and often have professional websites and telephone numbers to support their activities. These callers will sometimes imply a connection to Rolls-Royce and provide incorrect or misleading information. This type of call should be treated as an investment scam – the safest thing to do is hang up.

You should always check that any firm contacting you about potential investment opportunities is properly authorised by the FCA. If you deal with an unauthorised firm you will not be eligible for compensation under the Financial Services Compensation Scheme. You can find out more about protecting yourself from investment scams by visiting the FCA's website www.fca.org.uk/consumers, or by calling the FCA's consumer helpline on 0800 111 6768 (overseas callers dial +44 20 7066 1000). If you have already paid money to share fraudsters contact Action Fraud immediately on 0300 123 2040, whose website is at www.actionfraud.police.uk.

Remember: if it sounds too good to be true it probably is.

Visit Rolls-Royce online

Visit www.rolls-royce.com to find out more about the latest financial results, the share price, payments to shareholders, the financial calendar and shareholder services.

Keeping up to date

You can sign up to receive the latest news updates to your phone or email address by visiting www.rolls-royce.com and registering for our alert service.

Dividends paid on C Shares held

C Share calculation period	C Share dividend rate (%)	Record date for C Share dividend	Payment date
1 July 2017 – 31 December 2017	0.17	17 November 2017	3 January 2018
1 January 2017 – 30 June 2017	0.20	2 June 2017	3 July 2017

Previous C Share issues

	Apportionment values					CGT apportionment				
Issue date	No. of C Shares issued per ordinary share	Record date for entitlement to C Shares	Latest date for receipt of payment instruction forms by Registrar	Price of ordinary shares on first day of trading (p)	Value of C Share issues per ordinary shares (p)	Ordinary shares (%)	C Shares (%)	Date of redemption of C Shares	CRIP purchase date	CRIP purchase price (p)
3 January 2018	46	26 October 2017	1 December 2017	851.20	4.6	99.46	0.54	5 January 2018	9 January 2018	867.7115
3 July 2017	71	28 April 2017	1 June 2017	896.50	7.1	99.21	0.79	5 July 2017	7 July 2017	925.5883

For information on earlier C Share issues, please refer to www.rolls-royce.com.

Analysis of ordinary shareholders at 31 December 2017

Type of holder	Number of shareholders	% of total shareholders	Number of shares	% of total shares
Individuals	175,005	97.46	90,662,315	4.93
Institutional and other investors	4,552	2.54	1,749,934,793	95.07
Total	179,557	100.00	1,840,597,108	100.00
Size of holding (number of ordinary shares)				
1 – 150	56,788	31.63	5,258,063	0.28
151 – 500	87,879	48.94	23,755,565	1.29
501 – 10,000	33,203	18.49	51,515,559	2.80
10,001 – 100,000	1,177	0.66	32,369,515	1.76
100,001 – 1,000,000	342	0.19	114,444,596	6.22
1,000,001 and over	168	0.09	1,613,253,810	87.65
Total	179,557	100.00	1,840,597,108	100.00

Glossary

ABC	anti-bribery and corruption
ACARE	Advisory Council for Aviation Research and Innovation in Europe
AGM	Annual General Meeting
AMC	Approved Maintenance Centre
AMRCs	Advanced Manufacturing Research Centres
APRA	annual performance related award plan
Articles	Articles of Association of Rolls-Royce Holdings plc
ASC	Authorised Service Centres
bps	basis points
Brexit	UK exit from the European Union
C Shares	non-cumulative redeemable preference shares
C&A	commercial and administrative
CARs	contractual aftermarket rights
CEO	chief executive officer
CFO	chief financial officer
COO	chief operating officer
Company	Rolls-Royce Holdings plc
CPS	cash flow per share
CRIP	C Share reinvestment plan
DARPA	Defense Advanced Research Projects Agency
DJSI	Dow Jones Sustainability Index
DoJ	US Department of Justice
DPA	deferred prosecution agreements
DTR	the FCA's Disclosure Guidance and Transparency Rules
EASA	European Aviation Safety Agency
ELT	Executive Leadership Team
EPS	earnings per share
ERG	employee resource group
EU	European Union
EUR	euro
FCA	Financial Conduct Authority
FCAS	UK-France Unmanned Combat Air System
FCF	free cash flow
FRC	Financial Reporting Council
FX	foreign exchange
GBP	Great British pound or pound sterling
GHG	greenhouse gas
Global Code	Global Code of Conduct
Group	Rolls-Royce Holdings plc and its subsidiaries
HFCs	hydroflurocarbons
HSE	health, safety and environment
IAB	International Advisory Board
IAE	International Aero Engines AG
IASB	International Accounting Standards Board
IFRS	International financial reporting standards
ITP Aero	Industria de Turbo Propulsores S.A.
KPIs	key performance indicators
$ktCO_2e$	kilotonnes carbon dioxide equivalent
LGBT	lesbian, gay, bisexual and transgender
LIBOR	London inter-bank offered rate
LTIP	long-term incentive plan
LTPR	long-term planning exchange rate
LTSA	long-term service agreement
MPF	Ministério Público Federal, Brazil
MRO	maintenance repair and overhaul
MTC	Manufacturing Technology Centre
NCI	non-controlling interest
OCI	other comprehensive income
OE	original equipment
OECD	Organisation for Economic Co-operation and Development
P&L	profit and loss
PBT	profit before tax
PGB	power gearbox
PPE	property, plant and equipment
PSP	performance share plan
R&D	research and development
R&T	research and technology
Registrar	Computershare Investor Services PLC
RMS	risk management system
RRSAs	risk and revenue sharing arrangements
SDC	service delivery centres
SENER	SENER Grupo de Ingeniería, S.A.
SFO	UK Serious Fraud Office
SMR	small modular reactors
SMS	safety management system
SSA	Special Security Agreement
STEM	science, technology, engineering and mathematics
TCFD	Taskforce on Climate-related Financial Disclosures
the Code	UK Corporate Governance Code
Trent 1000 TEN	Thrust, Efficiency and New technology
TRI	total reportable injuries
TSR	total shareholder return
USD/US$	United States dollar
UTCs	University Technology Centres

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