News Release

28 February 2019

ROLLS-ROYCE HOLDINGS PLC - 2018 Full Year Results

Solid progress: results ahead of expectations

Warren East, Chief Executive commented: "Despite the challenges we faced on Trent 1000 in-service issues, solid progress has been made realising our ambition to make 2018 a breakthrough year, both strategically and financially. Underlying financial results are ahead of expectations, with good growth in profit and cash flow. Following the restructuring we announced in June last year we are starting to see the crucial behavioural changes needed to sustain our momentum.

We identified and are implementing the fixes to improve the health of the Trent 1000 fleet. Overall our Civil Aerospace large engine fleet performance is getting stronger, especially the Trent XWB-84, which surpassed three million flying hours continuing its exceptional entry into service record.

After a decade of significant investment we remain committed to delivering improved returns while continuing to invest in the innovation needed to realise our long-term aspiration to be the world's leading industrial technology company."

- **Strong underlying revenue growth; core revenue up 10%. Reported revenue up 7%**
- **Core free cash flow more than doubled to £641m, ahead of expectations**
- **Material improvement in net funds, year-end net cash balance of £611m**
- **Group underlying operating profit of £616m; group reported operating loss of £(1,161)m**
- **Trent 1000 fixes in place; in-year cash cost of £431m; total costs increased by £100m**
- **Exceptional Half Year charge of £554m on Trent 1000 increased to Full Year £790m**
- **Large engine flying hour growth of 14%, OE unit losses reduced by 13% to £1.4m**
- **Restructuring on track, c.1,300 net headcount reduction, £400m run-rate savings end 2020**
- **Decision to withdraw from New Midsize Airplane platform competition**
- **Positive outlook; at least £1bn free cash flow by 2020; mid-term ambition of > £1 CPS**

	Underlying Group[1]			Underlying Core[1,2]		
Year to 31 December	**2018**	**2017[3]**	**Organic Change[4]**	**2018**	2017[3]	**Organic Change[4]**
Revenue (£m)	**15,067**	13,671	+8%	**14,336**	12,786	+10%
Operating profit (£m)	**616**	306	253	**633**	317	+71%
Earnings per share	**16.0p**	2.3p	+10.2p	**17.4p**	4.4p	+8.7p

Reported Group

	2018	**2017[3]**	**Change**
Revenue (£m)	**15,729**	14,747	+7%
Operating (loss)/profit (£m)	**(1,161)**	366	-417%
Earnings per share	**(129.2)p**	184.4p	(313.6)p
Group free cash flow (£m)[5]	**568**	259	309
Core free cash flow (£m)	**641**	318	323
Cash / (net debt) (£m)	**611**	(305)	916
Payment per share	**11.7p**	11.7p	n/a

For notes to table see page 4

2018 Group highlights

Financial:

- Group underlying revenue of £15,067m up 8%; reported revenue £15,729m up 7%. Underlying Civil Aerospace revenue up 12%, Power Systems up 15%, Defence flat and ITP Aero up 6%
- Group underlying operating profit up £253m to £616m; good growth in Power Systems. Significant improvement in Civil Aerospace despite £127m increase in negative contract accounting adjustments (to £276m) offset by £188m higher net R&D capitalisation. Reported operating loss of £(1,161)m down £1,527m reflecting exceptional items
- Group free cash flow improvement of £309m to £568m driven by Core free cash flow of £641m (2017: £318m). Continued improvement in Civil Aerospace engine flying hour receipts, better deposit inflows in Defence and actions taken to standardise supplier payment terms
- Core free cash flow per share of 34.5p (2017: 17.3p); Group CROIC of 12% (2017: 13%)
- Net funds improved from a net debt position of £305m in 2017 to a net cash position of £611m, largely due to receipt of €673m proceeds from the disposal of L'Orange

Operational:

- Civil Aerospace: 469 large engines invoiced, with an additional 11 shipped to OEMs; further good progress in reducing large engine OE losses, down by 13% to £1.4m per engine, growth in large engine installed fleet of 8%, now at 4,757 installed engines driving engine flying hour growth of 14%; new product milestones with Pearl 15 launched for business aviation, Trent XWB-97 entered service on Airbus A350-1000 and Trent 7000 entered service on A330neo
- Power Systems: excellent progress driven by strength across key markets and growth in service revenues; increased long-term service agreement orders; growing success in hybrid rail
- Defence: increase in R&D investment; 17% increase in order backlog; orders for F-35 LiftSystem and EJ200 engines, MT30 continued success in naval, pivotal role in Team Tempest
- Restructuring announced in June 2018 on track: group structure changed; embedding new behaviours and values needed for cultural change; non-manufacturing headcount[6] reduced by a net c.1,300; remain on track for 4,600 net headcount reduction, related exceptional charge of £223m taken to the income statement; £70m cash costs, excluded from free cash flow

Trent 1000:

- Good progress with technical fixes on Trent 1000: certification of newly designed Package C compressor blade achieved and roll-out of this into fleet commenced; Trent 1000-TEN moved from hard life to less onerous inspection regime
- Trent 1000 exceptional charge increased from £554m at the Half Year to £790m for Full Year. This £236m increase reflects a contribution to customer disruption costs greater than those anticipated at the Half Year. Total cash costs (2017-2022) to resolve Trent 1000 issues £100m higher than earlier estimates; higher disruption partly mitigated by good progress on reducing shop visit costs
- Civil Aerospace incurred cash costs of £431m in 2018 (2017: £119m) in line with Half Year guidance. 2019 Full Year cash impact on Civil Aerospace expected to be around £450m for Trent 1000, before declining by at least £100m in 2020, and reducing materially thereafter

Trent 900:

- Exceptional item of £186m following Airbus' decision to close the A380 production line

Investment for the future:

- Encouraging progress in innovation: Full Year net R&D spend of £1.1bn; continued good progress with UltraFan programme; developments in both small scale full-electric and hybrid-electric flight; micro-grid offering launched; 892 patents approved for filing, a new record for Rolls-Royce

2018 Full Year Results: Business units

Percentage or absolute change figures in this document are on an organic basis unless otherwise stated

	Underlying revenue (£m)	Organic change[4]	Underlying op. profit (£m)	Organic change
Civil Aerospace	7,378	+12%	(162)	+55%
Power Systems	3,484	+15%	317	+20%
Defence	3,124	0%	427	-4%
ITP Aero	779	-	67	-
Corporate / eliminations	(429)	-	(16)	-
Core[2] operating business	**14,336**	**+10%**	**633**	**+71%**
Commercial Marine	726	-9%	(35)	+43%
L'Orange	89	-	21	-
Other / eliminations	(84)	-39%	(3)	-
Non-core[7] business	731	-16%	(17)	-45%
Total Group	**15,067**	**+8%**	**616**	**+101%**

For notes to table see page 4

2019 Outlook: Continued confidence

£m	2019 Outlook
Underlying revenue	
Civil Aerospace	Around 10% growth
Power Systems	Mid single-digit growth
Defence	Stable
ITP Aero	Around 10% growth
Underlying operating profit	
Civil Aerospace	Closer to breakeven
Power Systems	Margins around 100bps higher
Defence	Margins around 100bps lower
ITP Aero	Margins stable
Corporate costs	Around £50m
Group underlying operating profit	**£700m +/- £100m**
Group free cash flow[5,8]	**£700m +/- £100m**

For notes to table see page 4
Guidance for ongoing businesses, excluding Commercial Marine, treated as discontinued operations
Guidance has been provided at constant FX rates and reflects the expected impact of IFRS16

Other 2019 guidance considerations

- **USD:GBP hedge rate -** expected to be unchanged year-on-year (2018: $1.54)
- **R&D –** net cash spend expected to reduce by around £100m (2018: £1,106m); net capitalisation expected to be £100m lower (2018: £456m)
- **Capital expenditure** – expected to be around £75m lower year-on-year (2018: £905m)
- **Finance charges –** underlying finance costs expected to be around £60m higher at just over £200m (2018: £150m), with the increase primarily due to the impact of IFRS16
- **Cash tax** – expected to reduce to between £180m to £200m

Notes to financial tables on pages 1-3:

[1] Underlying: for definition see Note 2 on page 33
[2] Core includes Civil Aerospace, Power Systems, Defence and ITP Aero and excludes L'Orange and Commercial Marine
[3] All prior year comparatives have been restated for IFRS 15: see Note 18 on page 49
[4] Organic change at constant translational currency ('constant currency') by applying 2017 average rates to 2018 numbers and excluding M&A, specifically ITP Aero and L'Orange
[5] Free cash flow is defined as operating cash after capital expenditure, pensions and taxes, before payments to shareholders and acquisitions & disposals. Excludes cash costs of 2018 restructuring plan. The derivation of free cash flow from the cash flow statement is shown on page 47
[6] Excludes Direct labour, ITP, Commercial Marine, Submarines & Joint Operations (restated from Capital Markets Event at 15 June 2018 to now exclude Submarines and Joint Operations)
[7] Non-core businesses include the results of L'Orange until the date of its disposal on 1 June 2018, Commercial Marine (held for sale from 30 June 2018) and other smaller businesses including former Energy businesses not included in the disposal to Siemens in 2014 ('Retained Energy'). The 2017 segmental analysis has been presented on a consistent basis with the new segmental structure
[8] Free cash flow outlook includes in-service engine costs as outlined on page 18

This announcement has been determined to contain inside information.

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Photographs and broadcast-standard video are available at www.rolls-royce.com.
A PDF copy of this report can be downloaded from www.rolls-royce.com/investors.

This Full Year Results announcement contains forward-looking statements. Any statements that express forecasts, expectations and projections are not guarantees of future performance and will not be updated. By their nature, these statements involve risk and uncertainty, and a number of factors could cause material differences to the actual results or developments. This report is intended to provide information to shareholders, 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 under English law.

Results presentation

A presentation will be held at 09:00 (GMT) today. Details of how to join the event online are provided below. Downloadable materials will be available on the Investor Relations section of the Rolls-Royce website from the start of the event.

Online webcast registration details:

To register for the live webcast, including Q&A participation, please visit the following link:

https://edge.media-server.com/m6/p/3hioh2gu

Please use this same link to access the webcast replay which will be made available shortly after the event concludes.

Chief Executive Review

At the start of the year I made clear that our goal was to make 2018 a breakthrough year for Rolls-Royce. Across the business real progress has been made in realising that ambition. We have taken significant strategic steps, with the simplification of our Group and subsequent launch of a more fundamental restructuring positioning us for success. We are now starting to see the crucial cultural and behavioural breakthrough Rolls-Royce requires to build real momentum and sustain the positive change seen in 2018 for the long term, in support of our aspiration to be the world's leading industrial technology company.

Underlying financial results were ahead of expectations with strong growth from Civil Aerospace and Power Systems and a steady performance in Defence and ITP Aero. We reported good growth in underlying revenues and delivered a material improvement in underlying profit and free cash flow – another step along the journey towards free cash flow of at least £1bn by 2020. During the year we extended that financial horizon, with a mid-term ambition for free cash flow per share to exceed £1 and in line with our ongoing drive to increase openness and transparency with investors. The message is clear: after a decade of significant investment we are committed to delivering improved returns while continuing to invest in the innovation needed to realise our long-term aspiration.

While we achieved a number of important operational and technical milestones during the year, we faced the challenge of in-service issues with the Trent 1000 which caused significant disruption for a number of our customers, which we sincerely regret. We are recognising a significant exceptional charge within our financial figures for 2018 as a result of the abnormal cost of our contribution to dealing with customer disruption, but we are managing the issues and good progress was made in the year on long-term solutions.

We entered the year with a clear, refreshed vision to pioneer cutting-edge technologies that deliver clean, safe and competitive solutions to meet our planet's vital power needs. Following that vision, the year began with the further simplification of the Group from five operating businesses to three core units – Civil Aerospace, Power Systems and Defence – enabling us to act with much greater pace in meeting the needs of our customers. Creating a Defence operation with increased scale, for instance, will present us with further opportunities in the future.

We also took the decision to carry out a strategic review of our Commercial Marine operations, resulting in the sale of the business, due to complete in the first half of 2019. This business has been reclassified within "assets held for sale". During the year we sold L'Orange, which supplies fuel injection technology, enabling Power Systems to focus on other long-term, high growth opportunities and the Group to allocate our capital to core technologies.

These strategic changes enabled us to embark upon a 24-month programme of fundamental restructuring, to create smaller and more cost-effective corporate and support functions and reduce management layers and complexity. We expect the proposed restructuring will lead to the reduction of around 4,600 roles by mid-2020. By the end of the year our non-manufacturing headcount had reduced by around 1,300. It is never an easy decision to reduce our workforce, but we must fundamentally change the way we work.

We are replacing a heavily centralised control culture with empowered businesses, operating within a framework, in a leaner structure with much clearer accountabilities. We have dramatically reduced the size of our head office to focus solely on corporate governance, strategy and ensuring that we fulfil our corporate responsibilities as a publicly listed company. From the start of this year, our businesses are being supported by a Group Business Services organisation, which pools our professional and transactional services; and an Innovation Hub, which draws together skillsets and expertise which have common application across the Group including digital capabilities, future technologies and strategic insight. This activity will foster quicker decision-making but must be accompanied by the appropriate behavioural change; only then will this breakthrough be sustained into the long term.

Trading Summary

Core Trading Summary

The income statement table below and all commentary relate to the underlying performance of our core business and percentage or absolute change figures in this document are on an organic basis, unless otherwise stated.

Summary income statement

£m	2018	2017	Change	Organic change*
Underlying revenue	**14,336**	**12,786**	**+12%**	**+10%**
Underlying OE revenue	7,184	6,244	+15%	+10%
Underlying services revenue	7,152	6,542	+9%	+9%
Underlying gross profit	**2,256**	**1,998**	**+13%**	**+4%**
Gross margin %	15.7%	15.6%	+10bps	-80bps
Commercial and administration costs	(991)	(955)	+4%	-2%
Restructuring	(14)	(16)	-13%	-25%
Research and development charge	(650)	(724)	-10%	-14%
Joint ventures and associates	32	14	+129%	+150%
Underlying operating profit	**633**	**317**	**+100%**	**+71%**
Underlying operating margin	**4.4%**	**2.5%**	**+190bps**	**+140bps**
Financing costs	(150)	(106)	+42%	+38%
Underlying profit before tax	**483**	**211**	**272**	**184**
Tax	(152)	(131)	+16%	+11%
Underlying effective tax rate	31.5%	62.1%		
Underlying profit	**331**	**80**	**251**	**170**
Underlying earnings per share	**17.4p**	**4.4p**	**+13.0p**	**+8.7p**

*Organic change – 2018 excludes ITP Aero in order to be comparable to 2017

For notes to table see page 4

Underlying revenue up 10%

Underlying revenue rose 10% to £14,336m reflecting growth in both OE revenue 10% and Services 9%, led by Civil Aerospace and Power Systems. Civil Aerospace revenues increased 12% reflecting OE growth of 8% driven by large engine pricing improvements and higher volumes of spare engines to support our growing in-service fleet. Service revenues in Civil Aerospace rose 15% reflecting growth in LTSA shop visits and higher spare parts sales. Power Systems delivered excellent revenue growth of 15% with strength across almost all of its end markets driving double digit growth in both OE 18% and Services 10%. Defence revenue remained stable with a modest increase in OE offset by reduced service revenues, reflecting phasing of work on UK Submarines.

Underlying gross profit up 4%

Underlying gross profit up 4% to £2,256m with gross margins of 15.7%. Civil Aerospace gross profit was stable; good progress on reducing widebody OE engine losses and increased spare engine volumes were offset by higher negative LTSA contract accounting adjustments. Before these contract accounting adjustments Civil Aerospace gross margins were up 100bps. Power Systems recorded lower gross margins due to product mix, despite the increased volumes. Defence gross margins were modestly weaker due to lower OE combat volumes and lower margins on submarine service revenues in the year.

Self-funded R&D cash spend up 8%; Income statement charge down 14%

Gross R&D expenditure grew to £1,378m. After funding from customers and other third parties, core self-funded cash R&D spend rose 8% to £1,106m, primarily driven by investment in new engine technologies in Civil Aerospace, specifically the Ultrafan and on our new business aviation engine family, higher spend on the Trent 1000 and future programmes in Defence. Capitalisation of R&D rose from £347m to £498m reflecting the full year impact of our revised R&D policy application as outlined at our 2017 Full Year results (see Note 1). Overall the R&D charge to the income statement reduced by £102m to £650m.

C&A costs down 2%

Commercial & administration costs were 2% lower at £(991)m, reflecting the beneficial effect of reductions in non-manufacturing headcount across the Group. C&A costs as a percentage of revenue fell to 6.9% in 2018 (2017: 7.5%). Over the mid-term our ambition is to reduce C&A costs to around 5%.

Underlying operating profit up £224m

Underlying operating profit saw a material £224m improvement on prior year to £633m, reflecting 20% growth in Power Systems to £317m, due to strong volume growth and a £189m improvement in Civil Aerospace, reflecting a number of factors:

- Further progress in reducing OE unit losses in large engines, which fell by 13%
- Increased sales of spare engines and spare parts, higher LTSA shop visit volumes
- Offset to an extent by a material increase in LTSA negative contract accounting adjustments of £276m, up £127m versus 2017
- £188m higher net R&D capitalisation

Financing costs

Financing costs increased from £106m in 2017 to £150m in 2018, partly due to the inclusion of ITP Aero absent from our 2017 results. Within financing net interest payable increased to £72m (2017: £53m) driven by higher interest rates, the carry cost associated with pre-funding our 2019 debt maturities as part of Brexit mitigation planning, partially offset by interest received on the L'Orange disposal proceeds.

Other underlying financing costs were £78m in 2018 (2017: £54m). The increase reflects the inclusion of ITP Aero, increased charges related to discounting of provisions and higher other financing charges.

Taxation

Core underlying taxation was £152m (2017: £131m), an underlying rate of 31.5% compared with 62.1% in 2017. The 2018 core underlying tax charge has not increased in line with profits mainly due to reductions in US tax rates and the benefit of tax credits. The reduction in the 2018 core underlying tax rate compared to the prior year is primarily driven by the increase in the core underlying profit in 2018 together with the lower US tax rate and benefit of tax credits. The rate remains high due to the impact of UK losses and the mix of profits arising in other countries with higher tax rates, predominantly the US and Germany.

Trent 1000 in-service impact

A Full Year exceptional charge of £790m has been recorded to cover the full anticipated costs of the Trent 1000 in-service issues over 2017 to 2022 that are considered 'abnormal' in nature. These abnormal costs fall outside the scope of our normal LTSA costs and largely comprise our contribution to additional customer disruption costs. This charge is an increase of £236m compared to the £554m recorded at the Half Year. While strong progress has been made in reducing shop visit costs compared to our prior estimates, this has been counter-balanced by an increased level of customer disruption driven by the higher than previously anticipated 'aircraft-on-ground' (AOG) levels. This change in the mix of costs has driven the higher exceptional charge. The total multi-year cash impact of Trent 1000 in-service issues is now expected to be £100m higher than our prior estimates over 2017 to 2022, of which £431m has been incurred in 2018.

The treatment of such a charge as exceptional reflects a number of factors, primarily:

- The unprecedented nature of the issues with the Trent 1000 – being a fleet-wide issue of an unusual and abnormal scale, impacting multiple airline customers and resulting in a significant level of aircraft on the ground
- The fact that this technical issue has resulted in a number of separate airworthiness directives and non-modification service bulletins – a highly abnormal situation for Rolls-Royce

The costs which have been included in the exceptional charge cover those which we would not typically incur, such as our contributing to additional customer disruption costs. The total exceptional charge represents around 55% of total estimated cash costs from 2017 to 2022. The remaining charge will be recognised over time through our normal contract accounting margins.

The total cash impact on Civil Aerospace from the Trent 1000 in-service issues in 2018 was £431m (2017: £119m). In 2019, we expect the impact to be around £450m, before declining by at least £100m in 2020 and reducing materially thereafter. All technical changes are expected to be fully embodied into the Trent 1000 fleet by 2022.

Costs to mitigate in-service issues on the Trent 900 in 2018 were £14m. Given their smaller scale, these costs will be included within our normal operational costs going forwards and not split out.

Trent 900 cancellation impact
Following Airbus's announcement on 14 February 2019 of its plan to cease delivery of the A380 in 2021 we have assessed the impact on our Trent 900 programme and associated customers and suppliers. We have recorded an exceptional item of £186m in our 2018 results which relates to onerous contracts, tooling write-offs and the acceleration of depreciation and amortisation on associated Trent 900 programme assets.

Exceptional restructuring charge
An exceptional restructuring charge of £317m was recognised in the year (2017: £104m), of which £223m relates to the cost of our Group-wide restructuring plan as announced in early 2018. Positive progress has been made so far and we have achieved a gross reduction in headcount of around 2,000 during the year with a net reduction of around 1,300. The total expected cash cost to implement this restructuring programme remains around £500m and should be completed by the end of 2020. The remainder of the exceptional charge taken in 2018 relates to restructuring programmes that were already in place at Power Systems and Defence, reflecting actions to remove cost and improve operational efficiency.

Order backlog: unrecognised revenue under IFRS 15
IFRS 15 requires the disclosure of unrecognised revenue, the amount of revenue from our customer contracts that has not yet been traded. For OE, the policy is prescriptive, including only firm purchase orders and pricing net of any discounts. The IFRS 15 disclosure includes the entirety of any contracted aftermarket revenue.

Total unrecognised revenue at the year end under IFRS 15 was £63.1bn (2017: £55.0bn). This new disclosure replaces the valuation of the 'order book' that we have previously published and which was prepared on a different basis.

IFRS 16
IFRS 16 is effective for the year beginning 1 January 2019 and requires the total commitments of all leases (both finance and operating leases) to be recognised on the balance sheet. In broad terms the impact of the standard will be:

- On our Balance Sheet we will record an additional lease liability of £2.1bn and lease assets of £1.8bn
- In the Income Statement the impact on operating profit is expected to be a £40-50m benefit as rental payments are now replaced with depreciation on the leased assets. However, higher finance costs relating to the lease liability will result in a potential £10-15m reduction in overall underlying profit before tax compared with the previous basis of accounting for leases
- There will be no cash flow impact

Capital allocation strategy / KPIs
As we outlined at our 2018 Capital Markets Event, a disciplined approach to capital allocation and sustaining a healthy balance sheet will play a major part in improving our long-term returns. To support this we have introduced a new key performance indicator, Cash Return on Invested Capital (CROIC), to focus on both cash generation and asset efficiency. In 2018 we generated a CROIC of 12% (2017: 13%). The modest decline reflected increased cash generation from our growing in-service engine fleet which was offset by higher Trent 1000 in-service costs and growing levels of R&D and capital investments in recent years. Our mid-term ambition is to generate a CROIC of at least 15% through the business cycle.

We also re-iterated our focus on free cash flow by introducing a Cash Flow per Share KPI. In 2018 Core CPS improved materially to 34.5p (2017: 17.3p). We maintain our mid-term ambition of at least £1 of Free Cash Flow per Share. With improved cash generation, we aim to maintain a strong investment grade credit rating and ultimately return to single A-grade status.

Group Trading Summary

Group results include core and non-core businesses. Group underlying revenues rose 8% to £15,067m, primarily driven by growth at Civil Aerospace and Power Systems, offsetting a 16% decline in non-Core revenue. Group underlying operating profit improved by £253m to £616m as a result of improved gross profit and lower expensed R&D.

Group Funds Flow

Free cash flow

Group free cash flow improved materially by £309m to £568m, well ahead of the £259m in 2017, driven by improved trading performance, increased engine flying hour receipts in Civil Aerospace and active working capital management across the Group. This was achieved despite increased capital expenditure and R&D reflecting ongoing investment in bringing new Civil Aerospace large engines to the market and supporting our growing in-service fleet. As expected, Trent 1000 in-service cash costs were materially higher in 2018 at £431m, an increase of £312m versus 2017. Given the one-off nature of the restructuring announced in early 2018, the £70m cash costs relating to this restructuring programme are not included in group underlying free cash flow.

Summary funds flow statement [1]	Full year to 31 December		
£m	**2018**	2017	Change
Opening net (debt)/funds	**(305)**	(225)	
Closing net funds/(debt)	**611**	(305)	
Change in net funds	**916**	(80)	
Underlying profit before tax	**466**	199	267
Depreciation and amortisation	**756**	652	104
Capital expenditure (PPE)	**(905)**	(730)	(175)
Expenditure on intangible assets	**(680)**	(647)	(33)
Working capital change	**581**	(219)	800
Civil Aerospace net LTSA balance change	**944**	1,379	(435)
Other	**(405)**	(186)	(219)
Trading cash flow	**757**	448	309
Contributions to defined benefit pensions in excess of underlying PBT charge	**59**	(9)	68
Taxation paid	**(248)**	(180)	(68)
Group free cash flow	**568**	259	309
Of which: Core free cash flow	***641***	*318*	*323*
Shareholder payments	**(219)**	(214)	(5)
Disposals and acquisitions	**583**	211	372
Exceptional group restructuring	**(70)**	-	(70)
Payment of financial penalties	**-**	(286)	286
Foreign exchange	**54**	(59)	113
Other	**-**	9	(9)
Change in net funds	**916**	(80)	996

[1] The derivation of the summary funds flow statement above from the reported cash flow statement is included on page 47

Expenditure on property, plant and equipment and intangibles

The combined £1,585m investment is broadly aligned with our capital additions in the year and reflects our ongoing investment in capacity and capability, projects to modernise facilities in the US, investment in systems and software applications and the capitalisation of R&D.

Working capital change

Positive contribution to cash flow from working capital in 2018 of £581m, reflecting:

- Higher payables due to increased trading activity in Civil Aerospace and Power Systems. Progress on standardising supplier payment terms, around £400m benefit in 2018
- Receivables broadly neutral as volume-related growth in receivables was offset by an improvement in overdue payment collection
- Partly offset by a increase in inventory driven by volume growth in Power Systems and the production challenges Civil Aerospace encountered in 2018

Active working capital management includes the management of trade receivables and the provision of a supply chain finance scheme to our suppliers. The most significant driver of our underlying working capital improvement in 2018 related to standardisation of supplier payment terms, which positively impacted cash flow by around £400m.

Movement in Civil Aerospace net LTSA balance
The LTSA balance represents deferred revenue and is a core part of our business model where we receive payments from our customers in respect of our long-term service and overhaul agreements. In 2018 there was an increase of £944m, reflecting strong engine flying hour growth and associated cash receipts from customers in advance of incurring costs for engine servicing activity in Civil Aerospace. The movement in year also reflected the negative contract accounting adjustments and foreign exchange.

Pensions
The improvement to pension funding largely relates to the UK as contributions agreed at the 31 March 2017 statutory valuation came into effect from 1 January 2018. In addition, we agreed to make cash contributions quarterly in arrears from 1 Jan 2018 (previously monthly in arrears) and benefitted from a one off cash saving in 2018. We expect to contribute around £145m in respect of the benefits accruing in 2018 (2017: £117m).

Taxation
Cash tax was higher in 2018 due to higher profits and increased payments in Germany partly offset by the benefit of the US rate reduction.

Shareholder payments
The increase relates to the higher number of shares in issue resulting from the acquisition of ITP Aero and a dividend to a non-controlling interest of £3m.

Acquisitions and disposals
L'Orange (a Power Systems subsidiary), was sold on 1 June 2018. The inflow in 2017 relates to the funds held by ITP Aero on acquisition.

Payment of financial penalties
Following the agreements reached with investigating authorities in January 2017, a payment schedule was agreed and £286m of penalties were paid in the UK, US and Brazil in 2017. As part of that schedule no payments were due in 2018 and further UK payments of £100m, £130m and £148m (plus interest) will be made in 2019, 2020 and 2021, respectively.

Balance sheet

Summary balance sheet £m	31 Dec 2018 Core	31 Dec 2017 Excluding L'Orange and Commercial Marine	31 Dec 2017 L'Orange and Commercial Marine	31 Dec 2017 Total	Change excluding L'Orange and Commercial Marine
Intangible assets	**5,295**	4,998	567	5,565	297
Property, plant and equipment	**4,929**	4,468	190	4,658	461
Joint ventures and associates	**412**	375	-	375	37
Contract assets and liabilities	**(7,073)**	(5,766)	-	(5,766)	(1,307)
Working capital[1]	**(1,255)**	(1,050)	83	(967)	(205)
Provisions	**(1,917)**	(891)	(52)	(943)	(1,026)
Net funds[2]	**611**	(305)	–	(305)	916
Net financial assets and liabilities[2]	**(4,117)**	(2,643)	-	(2,643)	(1,474)
Net post-retirement scheme surpluses/(deficits)	**641**	793	(55)	738	(152)
Tax	**1,026**	193	(5)	188	833
Held for sale (Commercial Marine)	**374**	506	(499)	7	(132)
Other net assets and liabilities	**22**	22	4	26	-
Net assets	**(1,052)**	700	233	933	(1,752)
Other items					
US$ hedge book (US$bn)	**36.8**			38.5	
Civil Aerospace LTSA asset	**1,097**			1,027	
Civil Aerospace LTSA liability	**(5,584)**			(4,570)	
Civil Aerospace net LTSA liability[3]	**(4,487)**			(3,543)	

[1] Net working capital includes inventories and trade receivables and payables and similar assets and liabilities.
[2] Net funds includes £293m (2017: £227m) of the fair value of financial instruments which are held to hedge the fair value of borrowings.
[3] In August 2018, we reported a net Civil Aerospace net LTSA creditor of £(3,559)m at 31 December 2017. Since then we further reviewed the classification of balances resulting in a change of £16m being reflected in the balance of £(3,543)m.

Excluding L'Orange and Commercial Marine key drivers of balance sheet movements were:

Intangible assets: The net increase of £297m includes additions of £680m, primarily driven by R&D capitalisation of £498m, largely relating to Civil Aerospace, together with further investment in software applications of £110m. These were offset by an impairment charge of £184m, primarily relating to the write-off of commercial marine goodwill, and £381m of amortisation in the year.

Property, plant and equipment: Increased by £461m. Capital additions of £974m in the year were driven by investments in Civil Aerospace to support growth. We made a number of investments to increase the capacity and capability across our businesses, including addressing Trent 1000 in-service issues in Civil Aerospace, upgrade of our Indianapolis facility in Defence and technical equipment and specialised tooling in Power Systems. We also expanded our lease engine pool to support our growing in-service widebody engine fleet. Depreciation of £523m was charged in the year.

Investments in joint ventures and associates: There was no material change in our investment in joint ventures and associates year-on-year.

Contract assets and liabilities: This represents deferred revenue and is a core part of our business model where we receive payments from our customers in respect of our long-term service and overhaul agreements. The balance increased by £(1,307)m, of which £(944)m related to Civil Aerospace. This was driven by strong engine flying hour growth and associated cash receipts from customers in advance of engine servicing activity and the £276m contract accounting catch-up adjustment recorded in 2018. The remainder of the increase reflected growth in deposits.

Working capital: For discussion of the movement in working capital, see the explanation on page 9 within funds flow.

Provisions: Provisions increased by £1.0bn to £1.9bn. This reflected a £1.6bn charge (the majority of which relates to the exceptional items recorded in 2018), net of £0.6bn utilisation of provisions in the year. Approximately £1bn of the closing balance relates to current provisions.

Net funds: Net funds improved from a net debt position of £305m in 2017 to a net cash position of £611m. The change reflected receipt of £573m net proceeds from the disposal of L'Orange and £568m of free cash flow generation offset by payments to shareholders of £(219)m.

Net financial assets and liabilities: These items principally relate to the fair value of foreign exchange, commodity and interest rate contracts. There was a reduction of £1,474m, primarily relating to an adverse mark to market movement on the foreign exchange hedge book of £2,122m, offset by settled contracts of £(684)m.

Net post-retirement scheme surpluses: There was a decrease in the surplus of £152m, with a reduction of £182m in UK schemes and a £30m increases in overseas schemes. The reduction in the UK surplus was primarily the result of changes in demographic assumptions plus additional Guaranteed Minimum Pension liabilities recognised following the Lloyds Bank High Court decision, which led to an exceptional charge of £121m.

US$ hedge book: The US hedge book at $36.8bn remained broadly stable as contracts settled were replaced with new contracts.

Group Reported Results

The changes resulting from underlying trading are described on pages 6 to 24.

Consistent with past practice and IFRS, we provide both reported and underlying figures. As the Group does not generally hedge account for forecast transactions in accordance with IFRS 9 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 a significant impact on the reported results. In 2018, the USD:GBP rate fell from 1.35 to 1.28 while the EUR:GBP fell from 1.13 to 1.12. The adjustments between the underlying income statement and the reported income statement are set out in Note 2 to the condensed consolidated financial statements. This basis of presentation has been applied consistently.

	Reconciliation between underlying and reported results								
	£m	**Revenue**		**Profit before financing**		**Financing**		**Profit/(loss) before tax**	
	Year to 31 December	**2018**	2017	**2018**	2017	**2018**	2017	**2018**	2017
	Underlying	15,067	13,671	616	306	(150)	(107)	466	199
1	Revenue recognised at exchange rate on date of transaction	781	1,076	–	–	–	–	–	–
2	Mark-to-market adjustments on derivatives	–	–	(1)	24	(2,144)	2,648	(2,145)	2,672
1	Related foreign exchange adjustments	–	–	(23)	294	163	196	140	490
3	Trent 1000 exceptional charge	–	–	(790)	–	(15)	–	(805)	–
3	Trent 900 exceptional item	(119)	–	(186)	–	–	–	(186)	–
3	Exceptional restructuring	–	–	(317)	(104)	–	–	(317)	(104)
4	Effects of acquisition accounting	–	–	(175)	(129)	(8)	–	(183)	(129)
5	ITP acquisition	–	–	–	785	–	–	–	785
6	Disposal of L'Orange	–	–	358	–	–	–	358	–
7	Impairments of Commercial Marine	–	–	(155)	–	–	–	(155)	–
8	Pension equalisation	–	–	(121)	–	–	–	(121)	–
	Other	–	–	(9)	(25)	10	10	1	(15)
	Reported	15,729	14,747	(803)	1,151	(2,144)	2,747	(2,947)	3,898

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

[1] The impact of measuring revenues and costs at spot rates rather than achieved hedge rates increased revenues by £781m (2017: £1,076m) and reduced profit before financing by £(23)m (2017: increased by £294m). Adjustments to profit before financing include the loss on derivatives settled during the year of £219m, (2017: £453m) and the impact of valuation of assets and liabilities using the year-end exchange rate rather than the underlying hedge book rate.

[2] There was a mark to market loss on the Group's hedge book of £(2,144)m (2017: gain of £2,648m). These reflect the large hedge book held by the Group (e.g. USD $37bn); and the weakening of sterling, against the US dollar (1.35 to 1.28) in 2018. At each period 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.

[3] As described on page 33, the exceptional items are excluded from the underlying results. This includes the exceptional items in respect of the Trent 1000 and 900 and exceptional restructuring costs. These have been explained on page 36.

[4] The effects of acquisition accounting £183m (2017: £129m) principally relate to the amortisation of intangible assets arising on the acquisition of Power Systems in 2013 and ITP Aero at the end of 2017.

[5] ITP Aero was acquired on 19 December 2017 and gave rise to a bargain purchase of £303m and a revaluation of the existing stake of £482m.

[6] The disposal of L'Orange in June 2018 gave rise to a gain of £358m.

[7] As described on page 46, the sale of the Commercial Marine business was announced on 6 July. It has been classified as 'held for sale', and written down to its expected disposal value, resulting in a loss of £155m.

[8] Following a High Court judgement in October 2018, the estimated costs of equalising UK pension benefits for men and women has been recognised as a past-service charge.

Tax effecting these adjustments resulted in a tax credit of £715m (2017: charge £360m).

2018 Business Unit Highlights

The commentary in this section relates to the underlying performance of our Core businesses, and percentage or absolute change figures are on an organic basis, unless otherwise stated.

Civil Aerospace - underlying revenue £7,378m, +12%, underlying operating loss £(162m)

- Underlying revenue growth of 12% driven by increased service activity, higher spare engine volumes and improved OE pricing
- Underlying operating loss halved to £(162)m reflecting reduced installed OE losses, higher spare engine volumes, strong servicing activity, and increased net R&D capitalisation of £188m, offsetting £127m increase in negative LTSA contract accounting adjustments
- Trading cash flow improved from £38m to £201m led by 14% growth in widebody engine flying hours and 13% reduction in average installed OE unit deficit to £(1.4)m. This was despite a £312m increase in cash costs for the Trent 1000 and higher major LTSA shop visits (up from 240 to 286). Trent 1000: 99.9% despatch reliability, accumulated 6.7 million flying hours
- Good progress introducing technical fixes on the Trent 1000 with introduction of new design for IPC blade in Package C engines and agreement to move from a hard life on the Trent 1000 TEN to an inspection regime. AOGs remained at a high level in the second half of 2018; 34 aircraft on the ground at the end of the year (2017: 18). Expect a significant improvement in AOGs over the course of 2019 reflecting the improvement in fleet health
- Milestone programme achievements; Trent 1000 TEN entered into service; launched first of a new family of engines for business aviation with the Pearl 15; Trent XWB-97 entered into service on the Airbus A350-1000; Trent 7000 entered into service on the A330neo with TAP Portugal
- Trent XWB-84; 99.9% despatch reliability, achieved 3 million flying hours, OE deficit down 32%

Power Systems - underlying revenue £3,484m, +15%, underlying operating profit £317m

- Underlying revenue increased by 15% driven by 18% growth in OE, with some pre-buy ahead of emission regulation changes, and 10% growth in services; reflecting strong performance across key market segments
- Underlying operating profit improved 20% driven by higher volumes
- Order intake growth of >20% reflecting strength across a diverse range of end markets
- Continued focus on service growth with ValueCare Agreements gaining momentum
- New power generation products developed for data centre applications and micro-grids to help meet increasingly stringent environmental regulations

Defence - underlying revenue £3,124m, broadly flat, underlying operating profit £427m

- Underlying revenue broadly flat with modest increase in OE offset by reduced service revenues
- Underlying operating profit down £16m due to higher R&D spend reflecting our focus on future technology development, partly offset by lower C&A costs
- Strong year for new order intake with £3.9bn of customer orders and 1.3 book-to-bill ratio; notable orders included a further production contract for the F-35 LiftSystem and EJ200 engines for Qatar
- MT30 engine continued to prove its success in the Naval market; selection on Japan’s 30FFM frigate programme; negotiations progressing to secure further exports
- Confirmed as one of four partner companies on Tempest, UK Combat demonstrator programme

ITP Aero – underlying revenue £779m, +6%, underlying operating profit £67m

- Underlying revenue increased by 6% primarily driven by higher civil aerospace OE deliveries
- Operating profit broadly flat; lower gross profit; offset by lower C&A cost and R&D costs
- Good progress on footprint expansion plans

Civil Aerospace

Overview paragraph
Civil Aerospace recorded good progress in 2018 with further growth in our widebody installed fleet to 4,757 engines, generating increased engine flying hour cash receipts. It was a year of milestone achievements in new engine programmes with the entry into service of the Trent 1000 TEN on the Boeing 787-10, launch of the first of a new family of engines for business aviation with the Pearl 15, entry into service of the Trent XWB-97 on the Airbus A350-1000 and the Trent 7000 on the A330neo. While another relatively quiet year for orders, we expect this to pick up in the next few years driven by replacement cycles of both medium and large widebody aircraft. Good progress has been made introducing technical fixes on the Trent 1000 where the fleet health is expected to improve through 2019.

Financial overview

£m	2018	2017	Change	Organic change
Engine deliveries (volume)	**686**	**683**	**-**	**-**
Underlying revenue	**7,378**	**6,598**	**+12%**	**+12%**
Underlying OE revenue	3,119	2,890	+8%	+8%
Underlying services revenue	4,259	3,708	+15%	+15%
Underlying gross profit	**493**	**473**	**+4%**	**+5%**
Gross margin %	6.7%	7.2%	-50bps	-40bps
Commercial and administrative	(336)	(362)	-7%	-7%
Restructuring	(8)	(11)	-27%	-27%
Research and development charge	(332)	(454)	-27%	-27%
Joint ventures and associates	21	11	+91%	+109%
Underlying operating loss	**(162)**	**(343)**	**181**	**189**
Underlying operating margin %	**-2.2%**	**-5.2%**	**+300bps**	**+310bps**

Underlying revenue

£m	2018	2017	Change	Organic change
Original Equipment	**3,119**	**2,890**	**+8%**	**+8%**
Large engine	2,373	2,089	+14%	+14%
Business aviation	620	582	+7%	+6%
V2500	126	219	-42%	-42%
Services	**4,259**	**3,708**	**+15%**	**+15%**
Large engine	2,666	2,327	+15%	+15%
Business aviation	464	396	+17%	+18%
Regional	292	277	+5%	+7%
V2500	837	708	+18%	+18%

Civil Aerospace metrics

	2018	2017
Large engines deliveries	469	483
Average loss per widebody OE	(1.4)	(1.6)
Large engine in-service fleet	4,757	4,409
Large engine invoiced flying hours	14.3m	12.6m
Large engine LTSA major refurbs	286	240
Large engine LTSA check & repair	569	356
Total service revenue growth	+15%	n/a

Underlying revenue
Underlying revenue increased 12% to 7,378m, reflecting growth in OE, up 8% to £3,119m, and 15% growth in services to £4,259m. OE growth was led by large engines (up 14%) driven by improved widebody engine pricing and higher sales volumes of spare engines to support the growing in-service fleet. Revenue growth from increased sales of spare engines to joint ventures contributed £112m to revenue growth. 2018 large engine OE deliveries include initial sales of Trent XWB-97 for the Airbus A350-1000, and Trent 7000 for the A330neo, both of which entered into service in the year.

Large engine service revenue increased 15% to £2,666m (2017: £2,327m) driven by increased LTSA shop visit volumes, with major refurbishments up 19% and check and repair volumes up 60%. The growth in check and repair activity was driven by Trent 1000 part durability issues. The increase in major refurbishments reflected our maturing in-service fleet, with engines that entered service in the early part of this decade, largely Trent 700s, reaching their first refurbishment. Sales of spare parts not covered by LTSAs also increased year-on-year.

Within business aviation, OE sales were 6% higher reflecting increased demand from airframers. The 18% growth in service revenue reflected a combination of increased servicing activity and a positive contract accounting adjustment which benefitted revenue. The 7% increase in regional aviation revenue was driven by higher sales of spare parts. On the V2500, OE revenue was 42% lower, reflecting production slowdown on the Airbus A320ceo. The 18% increase in V2500 service revenue to £837m was driven by increased servicing and higher spare part sales together with a modest increase in the payment from PWIAE for flying hours.

Underlying operating loss
The underlying operating loss halved to £(162)m. Gross profit increased 5% to £493m with a slight deterioration in gross margin to 6.7%. Reduced installed OE losses, higher profit from increased spare engine sales and strong demand for Time & Materials activity drove increased gross profit. These were offset by a material negative impact from long-term contract assumption changes. Before these contract accounting adjustments Civil Aerospace gross margins were up 100bps. Under long-term accounting, variations in revenue or cost assumptions, up or down, can lead to adjustments, positive or negative, for profits that have already been recognised over the life of a programme to date; with IFRS 15 leading to much greater volatility for such adjustments than under the previous revenue recognition standard. In 2018 there was a negative contract accounting impact of £(276)m (2017: £(149)m) which comprised three components:

- Life-cycle cost benefits of £38m primarily reflecting lower servicing costs for business aviation
- Technical costs of £(80)m to reflect the reassessed costs of technical issues across various engine programmes including rectifying manufacturing quality issues on Trent 900 turbine blades
- Higher operational costs of £(234)m reflected the latest information around future aircraft utilisation patterns and the resultant effects on shop visit cost with particular impact from mature programmes where small changes impact a significant portion of the profitability already recognised on the contract

£m	2018	2017
Life-cycle cost benefits	38	17
Technical costs	(80)	(98)
Operational costs	(234)	(68)
Total contract accounting adjustments	**(276)**	**(149)**

Self-funded R&D rose by £66m to £787m, reflecting increased investment in the new family of engines for business aviation and next generation technology, including the UltraFan demonstrator. This was more than offset by an increase in net R&D capitalisation of £188m reflecting the technical maturity across a number of programmes. It also reflected the policy application change, applied from Half Year 2017 that aligns with European peers and best practice. Overall the expensed R&D charge reduced from £(454)m in 2017 to £(332)m in 2018. C&A costs were 7% lower year-on-year reflecting reductions in headcount driven by our restructuring programme. The increase in profit from joint ventures and associates to £21m (2017: £11m) reflected higher shop visit volumes in joint venture overhaul bases, partly offset by ITP Aero no longer being reported as a joint venture.

Trading cash flow
Civil Aerospace trading cash flow improved £163m to £201m despite a £312m increase in cash costs on Trent 1000 in-service issues, £133m higher capital expenditure, largely on engines to support the in-service fleet and £66m higher self-funded R&D. These were more than offset by increased flying hour receipts from our growing in-service fleet, a 13% reduction in average widebody OE unit deficits, and higher volumes of spare engines.

Actions to improve working capital, included c. £400m benefit from standardisation of supplier payment terms and good cash collection from a number of customers. These more than offset the growth in inventory and an outflow of OE concessions of £150m led by the changing delivery mix of our widebody engine programmes

Trent 1000 in-service update
Since 2016, we have been undertaking a proactive maintenance programme on the Trent 1000 to address the lower than expected durability of a small number of parts. On 7 March 2018, with our Full Year 2017 results, we provided further detail as we progressed our understanding of the technical issues impacting compressor rotor blades, and intermediate and high pressure turbine blades within the Trent 1000 engine. Subsequent to that we announced the decision to undertake more frequent inspections of the compressors of our fleet of 386 Trent 1000 Package C engines. A similar durability issue was also identified on a small number of high-life Package B engines and we agreed with the regulatory authorities to carry out a one-off inspection followed by a regular inspection regime which we have managed as part of our ongoing maintenance programme for the fleet of 166 Package B engines. Both announcements were followed by EASA and the FAA issuing airworthiness directives related to repeat inspection requirements for Package B and C compressors.

The Trent 1000 in-service engine issues have caused significant disruption for a number of our customers, which we sincerely regret. We continue to work hard to remedy this situation and have made further good progress on the implementation of long-term solutions during the year. We have significantly increased our Trent 1000 MRO capacity, sought ways to reduce engine shop visit turnaround times and have added approximately 50% more turbine blade production capacity since the start of the year. We recently confirmed that we have gained certification for a redesigned intermediate compressor rotor blade for Trent 1000 Package C engines, with a redesign for Trent 1000 Package B engine to follow. In addition, we have obtained approval from the authorities to move from the current hard life for the Trent 1000 TEN on the intermediate compressor rotor drum to an inspection regime. We are also in the process of developing a redesigned blade for the Trent 1000 TEN and Trent 7000. We introduced a new intermediate pressure turbine blade with an improved protective coating to defend against sulphidation, and in relation to the high pressure turbine blades (which had impaired durability), a new blade design was made available from October 2018. Improvement in the fleet health of the Trent 1000 is expected to be most clearly seen through a declining level of aircraft on ground (AOG) as we progress through 2019.

The total cash impact on Civil Aerospace from the Trent 1000 in-service issues in 2018 was £431m (2017: £119m). In 2019, we expect the impact to be around £450m, before declining by at least £100m in 2020 and stepping down materially thereafter. All technical changes are expected to be fully embodied into the Trent 1000 fleet by 2022. Costs to mitigate in-service issues on the Trent 900 in 2018 were £14m. Given their smaller scale, these costs will be included within our normal operational costs going forwards and not split out.

Operational and strategic review
Long term demand for passenger aircraft remains strong, driven by the global expansion of an increasingly mobile middle-class. We expect this to drive continued strong widebody airframe demand, with an increased focus on newer, more fuel-efficient aircraft which our engines power. The progress made by our three newest widebody engines supports our strong market position in new widebody aircraft. In March we powered the entry into service of the Boeing 787-10 Dreamliner with delivery of the first Trent 1000 TEN powered 787-10 to Singapore Airlines. February saw us join Airbus and Qatar Airways to celebrate entry into service of the A350-1000, powered by our Trent XWB-97 engine. In November we celebrated the delivery of the first A330neo aircraft to enter service with TAP Portugal, which is powered by the Trent 7000 engine. We also powered the first flight of two new aircraft, the Beluga XL transporter with the Trent 700 engine and Bombardier's latest business jet with the newly certified Pearl 15.

In 2018 we delivered 469 widebody engines, and shipped a further 11 engines to airframer OEMs. This is lower than our original projections and reflects a combination of industry wide supply chain challenges and our own early stage production ramp-up challenges on the new Trent 7000 engine. We have continued to make progress reducing large engine OE unit losses, down by 13% to £1.4m per engine. A key contributor was the 32% reduction in the Trent XWB-84 average OE loss.

Our in-service large engine fleet grew by 8% in the year to 4,757 engines with widebody engine flying hours increasing 14%, driven by growth in our Trent 700, Trent 1000 and Trent XWB fleets. The Trent 700 fleet, which represents 34% of our in-service fleet with over 1,600 installed engines in service, celebrated its 2,000th delivery in December and has now flown over 50 million flying hours. This has become the engine of choice for Airbus A330ceo customers. Our Trent XWB-84 engine, which represents 9% of our in-service widebody fleet, has now achieved over three million flying hours and in 2018 powered the world's longest commercial flight. As the world's fastest-selling widebody engine with around 1,300 engines on order and excellent reliability, our Trent XWB engines will be a key driver of the continued growth in our share of the passenger widebody market.

At 2,288 engines our current total widebody order book supports continued growth in market share and in our installed base, delivering strong service revenues for decades.

In October Delta TechOps, based in Atlanta USA, joined our expanded service network for widebody engines when it began operations as a Trent Authorised Maintenance Centre to carry out services on the Trent 1000, Trent 7000 and Trent XWB engines. We also took steps during the year to increase our engine testing capacity, signing a lease with American Airlines for a testbed in Texas and entering into an agreement with Thai Airways International to support maturity testing. Work continues to progress well on the construction of a new testbed in Derby for the next generation of engines.

We continue to see positive signs of recovery in the business aviation market and are well placed to respond with our new family of Pearl engines, launched earlier this year with the Pearl 15 to power the new Bombardier Global 5500 and Global 6500 aircraft. This supports our strategy of regaining market share in this sector and reaffirms our position as the top engine supplier in the long range, large cabin sector of the market. We also announced the expansion of our global network of Authorised Service Centres for our business jet customers.

We have made excellent progress on our future technology programmes. As part of the continued development of our new UltraFan engine, we ran our Advance3 engine demonstrator at full power for the first time and successfully started icing tests on our new lean burn and low emission combustion system (ALECSys). The UltraFan engine is not only the foundation for our future large civil aero engines but also provides underlying technologies that will support other areas of our business.

Encouraging progress was also made in our strategy to champion electrification. We are developing programmes to demonstrate small scale full-electric and hybrid-electric flight. We continue to design and deliver new digital services for our customers under the banner of our IntelligentEngine vision. With the support of our newly-established R^2 DataLabs team we are able to combine our pioneering technology with advancements in the digital arena to deliver greater reliability, efficiency and value.

We continued to develop our service proposition for our aircraft lessor customers and have introduced LessorCare. We now have 15 customers covering around half of our leased widebody fleet. LessorCare provides faster and easier access to lessor services, whilst maximising returns on investment. Subsequently, we added LifeKey, which gives customers greater control over their assets by offering greater visibility, accessibility, portability and liquidity.

Outlook

Our current widebody order book supports the continued growth of our large engine installed base, which in turn will drive ongoing engine flying hour growth. Revenue and profit improvements will be led by continued reduction in OE deficits and increased servicing activity. In 2019 we expect these dynamics to deliver around 10% revenue growth and operating profits to be closer to break-even. We expect cash costs for the Trent 1000 in-service issues to be around £450m in 2019. Given the smaller scale of the Trent 900 in-service costs, these will no longer be reported separately.

Power Systems

Overview paragraph
Power Systems made excellent progress in 2018 driven by strong demand in key markets and ongoing actions taken by our new leadership, with an increased focus on manufacturing efficiency. Our significant installed base of engines across a broad range of end markets, new life-cycle service solutions, increased digital penetration, and greater R&D discipline, underpin our confidence for the future.

Financial Review

£m	2018	2017	Change	Organic change
Underlying revenue	**3,484**	**3,008**	**+16%**	**+15%**
Underlying OE revenue	2,322	**1,956**	+19%	+18%
Underlying services revenue	1,162	**1,052**	+10%	+10%
Underlying gross profit	**882**	**797**	**+11%**	**+10%**
Gross margin %	25.3%	26.5%	-120bps	-120bps
Commercial and administrative	(377)	(350)	+8%	+7%
Restructuring	(1)	(1)	-	-
Research and development charge	(188)	(181)	+4%	+3%
Joint ventures and associates	1	(4)	n/a	n/a
Underlying operating profit	**317**	**261**	**+21%**	**+20%**
Underlying operating margin %	**9.1%**	**8.7%**	**+40bps**	**+40bps**

Commentary excludes L'Orange which has been treated as non-core following its disposal in June 2018.

Underlying revenue
Underlying revenue of £3,484m increased by 15%. OE revenue rose by 18% driven by strong demand across a broad range of end markets. Key contributors were commodity related markets, emissions regulatory led demand in construction and agricultural sectors and increased Governmental project volumes. In Power Generation the strong demand for diesel and gas systems was partly offset by the tough comparison base following high levels of Chinese demand in 2017.

Services revenue increased by 10%, primarily due to improved commodity markets driving higher engine running hours and increasing demand for spare parts. The growth in major maintenance activities, in particular with ferry operators, as well as the growth in service activity in the Middle East also contributed to the growth. Good revenue growth on long-term service contracts reflected our earlier success in securing new contracts in rail and marine markets.

Underlying operating profit
Overall underlying operating profit rose 20% to £317m, led by increased sales volumes. Gross profit rose £78m reflecting this volume growth albeit product mix changes saw gross margin decline 120bps to 25.3% as a result of strong growth in lower margin construction and agricultural activity. C&A costs of £(377)m were 7% higher year on year due to pay escalation and strategic investments. The 3% increase in our R&D charge reflected increased in investment in future engine platforms and progress on our electrification strategy and automation engineering capabilities.

Operational and strategic review
Conditions across Power Systems' diverse end-markets remained robust throughout 2018. Recovery in the mining and onshore oil & gas industries, where we saw increased utilisation after several challenging years, drove strong aftermarket service demand. Increasingly stringent diesel engine emissions regulations drove some pre-buy in 2018, ahead of regulation changes that will take effect in 2019. The exponential growth in data usage and subsequent expansion of data centres drove increasing demand for back-up power solutions with Power Systems' products. The combination of rising energy demand in developing countries and the expansion of renewable energy sources led to an increase in demand for our flexible power solutions and products such as microgrid, hybridisation, gasification, electrification and energy storage.

We have made investments, both organic and inorganic, and formed new partnerships to support our strategy to become an integrated solutions provider. Customers are focussing on life-cycle performance, energy optionality and responsiveness and have an increasing requirement for digital capabilities. As an example, we launched turnkey microgrid solutions and took a strategic stake in the Berlin-based start-up Qinous to develop energy storage and further micro-grid capability.

We continue to make progress increasing our focus on service solutions. Life-cycle service contracts such as ValueCare Agreement continue to gain momentum with several new contracts signed during the year. The increased number of long-term service agreements with customers of Power Systems expands our aftermarket opportunities and follows the successful model pioneered in Civil Aerospace.

Demand for civil nuclear energy remains strong, particularly in those nations where clean energy policies are focused on finding solutions with attractive economics. This plays well to our Small Modular Reactor (SMR) solution, starting in the UK with further export potential in the longer term.

Order intake remained strong with >20% year-on-year growth driven by the recovery of key markets, including Mining, Yachts and onshore Oil & Gas, the latter being supported by higher oil prices. Power Generation orders continued to grow with an increasing number of data centre projects. We secured the first letters of intent for hybrid rail systems with Porterbrook and Irish Rail for the MTU Hybrid PowerPack. This powerpack is an eco-friendly drive system combining the best of diesel and battery-powered rail traction. It will deliver up to 33% lower fuel consumption and CO2 emissions, a fall in noise levels around railway stations of as much as 75% and significantly lower operating costs.

In the second half of the year a new operations strategy was launched that focuses on footprint efficiency and production flexibility. In addition, digital solutions introduced into our facilities have led to efficiency gains.

Future growth was underpinned by the introduction of a number of new products during the year. In Power Generation major product launches included the S4000 L64 PowerGen Gas Engine and the S4000 PowerGen Diesel Engine. Increasingly stringent emissions regulation led to the launch of the S1000 –S1500 EU Stage V Diesel Engines for Agriculture and Commodity and Industrial applications. The new generation S4000 Marine diesel engine was launched meeting the latest emission legislations and was commissioned by US ferry operator WETA.

R&D continues to focus on gas strategies power generation applications, a new generation of automation systems and strengthening our electrical design competence. In 2018 we focused our engineering resources to reflect new requirements for systems solutions and expanded globally with the enlargement of our India R&D facility. Work is being carried out on a number of forward-looking technology development concepts; including the use of alternative fuels and fuel cells.

Outlook

As we enter 2019 our confidence for the year ahead is underpinned by significantly improved order coverage than at this point last year. After the strong pre-buy effect in 2018, revenue growth is expected to moderate to mid single-digit growth supported by continued tightening of emission regulations, increasing data storage requirements and the growth of life-cycle solutions. Operating margins are expected to increase by around 100bps and we remain on track to realise our mid-teens operating margin ambition in the mid-term.

Defence

Overview paragraph

Defence had a solid year, with good progress on the full integration of defence aerospace, naval marine and submarines into one business and delivering on our 2018 facility modernisation plans. OE revenues increased, driven in part by demand for transport engines. Service revenue declined reflecting lower activity in submarines. Underlying operating profit was lower due to increased R&D on ongoing future technology development partly offset by reduced C&A cost. As we look to the year ahead, our stable outlook is underpinned by strong order intake achieved in 2018.

Financial overview

£m	2018	2017	Change	Organic change
Underlying revenue	**3,124**	**3,180**	**-2%**	**+0%**
Underlying OE revenue	1,452	1,398	+4%	+6%
Underlying services revenue	1,672	1,782	-6%	-4%
Underlying gross profit	**690**	**728**	**-5%**	**-3%**
Gross margin %	22.1%	22.9%	-80bps	-80bps
Commercial and administrative	(170)	(188)	-10%	-9%
Restructuring	(3)	(4)	-25%	-25%
Research and development charge	(100)	(89)	+12%	+13%
Joint ventures and associates	10	7	+43%	+43%
Underlying operating profit	**427**	**454**	**-6%**	**-4%**
Underlying operating margin %	**13.7%**	**14.3%**	**-60bps**	**-50bps**

Underlying revenue

Underlying revenue of £3,124m was broadly flat compared to the prior year. OE revenue, 6% higher year-on-year, was driven by increased demand for transport engines such as the Multi-Role Tanker Transport (MRTT) aircraft and an OE contract for the UK's Dreadnought submarine programme. This was partly offset by reduced combat volumes after the completion of the Oman EJ200 production contract in 2017. Service revenue was 4% lower, as increased Long Term Service Agreement (LTSA) revenues on EJ200 and Adour were offset by lower service revenue due to the phasing of work on UK submarines.

Underlying operating profit

Underlying operating profit of £427m was £16m lower than the prior year. Gross profit of £690m fell 3%, driven by lower OE combat volumes and lower margins on a bridging contract for submarines services following the introduction of Single Source Contract Regulations (SSCR). This was partially offset by increased sales of MRTT engines and improved LTSA margins driven by customer settlements and higher AE volume.

An increase in R&D spend of £11m largely reflected ongoing future technology development. C&A costs were £17m lower as a result of actions taken across the business to manage discretionary spend.

Operational and strategic review

Overall, our Defence markets remain stable. The United States continues to be our largest addressable market, where we have a particularly strong position in the Transport and Patrol segment. While annual US Department of Defense budgets can fluctuate from year-to-year, we expect modest growth over the long-term. The UK and Europe remain important markets for us; the political environment in these markets typically leads to large defence programmes being developed by a consortium of two or more companies, a trend we expect to continue. In Asia and the Middle East, indigenisation and regional threat levels have led to areas of higher growth.

Operationally, Defence completed the implementation of its simplified five-layer organisation as part of the Group's wider restructuring programme. This has streamlined Defence Programmes and Services activities and created aligned functional support.

Defence achieved its 2018 facility modernisation milestones in Indianapolis which included the relocation of over half of manufacturing operations into new facilities. The business also successfully started the transition of a substantial element of AE transport overhaul capability to Standard Aero, progressing towards a 2019 exit of the Oakland, California repair and overhaul facility. Together, these transformations will enable our Defence business to be more responsive to our customer needs while focusing our capital allocation on future products and technology.

2018 was a strong year for new order intake with Defence capturing £3.9bn of customer orders, a 1.3 book-to-bill ratio. Accordingly, our Defence order backlog grew 17% in the year to £6.8bn.

In aerospace, notable orders included; an additional production contract for the F-35 LiftSystem and EJ200 engines for Typhoon from Qatar. In addition, the first deliveries of the Trent 700 powered Airbus A330 MRTT were made to France, Singapore and the Republic of Korea.

In maritime, we secured contracts in submarines representing orders for decommissioning, development and sustainment activity in the near-term. Our MT30 engine continued to prove its success in the Naval market, including a further application secured this year with the selection for Japan's 30FFM frigate programme and with negotiations progressing to secure further exports.

In Services, the US Department of Defense renewed around £0.9bn of contracts to support in-service fleets across our transport, combat and trainer markets and Saudi Arabia renewed the RB199 support contract for its Tornado fleet.

In terms of new technology and R&D, Defence continues to make good progress towards securing a substantive role in delivering a new combat engine through our position as one of four partner companies on Team Tempest; a UK programme aimed at maintaining the nation's position as a leader in combat capability. Furthermore, our AE 3007 engine was selected to power the US Navy's MQ-25 Stingray, a new unmanned tanker aircraft. The UK Government has further underpinned the Dreadnought Submarine Programme for which our Defence business will supply the nuclear power capability.

Outlook

The Defence order backlog remains strong with a healthy number of new orders received in 2018 giving us confidence in our medium term outlook. In 2019, revenue is expected to remain stable with operating margins around 100bps lower as we increase investment in new platforms to position us for the next generation opportunities in transport and combat end markets.

ITP Aero

Overview paragraph

ITP Aero delivered good growth in 2018 driven by its exposure to civil aerospace growth programmes. Capacity was increased to support this, with 5% higher headcount. Underlying operating profit rose by 3% despite the impact of the share of Trent 1000 in-service issues shared with ITP Aero. We are well positioned to deliver further good growth, supported by long-term demand for growth in air travel and our exposure to growing civil aero engine programmes.

Financial overview

£m	2018	2017	Change	Organic change
Underlying revenue	**779**	**725**	**+7%**	**+6%**
Underlying OE revenue	666	554	+20%	+19%
Underlying services revenue	113	171	-34%	-35%
Underlying gross profit	**156**	**159**	**-2%**	**-3%**
Gross margin %	20.0%	21.9%	-190bps	-200bps
Commercial and administrative	(57)	(61)	-7%	-8%
Restructuring	(2)	-	-	-
Research and development charge	(30)	(33)	-9%	-12%
Underlying operating profit	**67**	**65**	**+3%**	**+3%**
Underlying operating margin %	**8.6%**	**9.0%**	**-40bps**	**-30bps**

*ITP Aero was acquired on 19 December 2017. Prior year comparatives are unaudited and are presented for comparison purposes only

Underlying revenue

Underlying revenue grew 6% to £779m led by progress in civil aerospace OE revenues, which saw good growth from increased volumes across Rolls-Royce and Pratt & Whitney programmes as well as improved pricing. This more than offset lower defence OE revenues, driven by a reduction in EJ200 and TP400 delivery volumes. Services revenues were lower, with weaker aftermarket revenues on certain civil aerospace programmes which more than offset a significant improvement in defence aftermarket.

Underlying operating profit

Underlying operating profit was 3% higher primarily driven by higher gross margins in civil OE, reflecting better pricing and good progress reducing unit costs. Operating profit growth was delivered despite a profit headwind from the impact of the share of Trent 1000 in-service issues that were allocated to ITP Aero. Gross margins in defence were lower due to reduced EJ200 engine volumes.

Operational and strategic review

The long-term trends driving demand growth in passenger aircraft remain strong. Our business continues to expect strong demand for aero engines across both narrow and widebody aircraft, with an increased focus on newer, more fuel efficient aircraft types. This, coupled with our presence on newly launched platforms that are currently ramping up, provides a solid base for ongoing growth in our civil aerospace business.

The production ramp-up in the year on growth programmes from both Rolls-Royce and Pratt & Whitney was supported by 8% capacity growth. To cater for further ongoing growth, we made good progress in 2018 on our capital investment plans, with the expansion of production facilities in Spain and Mexico to support development of new products. Actions taken to improve manufacturing cost efficiency delivered good progress in unit cost reduction, particularly across our civil engine programmes.

We made significant progress on the industrial plans included within our ITP 2020 Strategic Plan, announcing an investment of €14.2 million (2018-2021) in new facilities in Derio (Spain), focused on the design and manufacturing of engine external parts. This new plant will be operational by late spring 2019. Our newly built castings facility in Sestao (Spain) is now fully operational.

Significant milestones in 2018 included delivery of the 600th low pressure turbine for the Trent XWB-84; delivery of the last EJ200 Tranche 3A engine to the Spanish Air Force; and more than 575 engines and modules serviced across plants in Spain, US and Malta. We continue to execute our Research & Technology plan with good progress on UltraFan turbine technology development and a strengthening of the CFAA (Centro de Fabricación Aeronautica Avanzada) in Biscay with a large number of development programmes.

Outlook

Our exposure to growing civil aerospace platforms supports our expectation of around 10% revenue growth in 2019 with a stable operating margin.

Condensed consolidated financial statements

Condensed consolidated income statement

For the year ended 31 December 2018

	Notes	2018 £m	Restated * 2017 £m
Revenue	2	**15,729**	14,747
Cost of sales [1]		**(14,531)**	(12,325)
Gross profit		**1,198**	2,422
Commercial and administrative costs [1]		**(1,595)**	(1,222)
Research and development costs	3	**(768)**	(843)
Share of results of joint ventures and associates		**4**	9
Operating (loss)/profit	2	**(1,161)**	366
Gains arising on the acquisition of ITP Aero	16	**–**	785
Gain on the disposal of L'Orange	16	**358**	–
(Loss)/profit before financing and taxation †	2	**(803)**	1,151
Financing income	4	**271**	2,911
Financing costs	4	**(2,415)**	(164)
Net financing		**(2,144)**	2,747
(Loss)/profit before taxation		**(2,947)**	3,898
Taxation	5	**554**	(515)
(Loss)/profit for the year		**(2,393)**	3,383
Attributable to:			
Ordinary shareholders		**(2,401)**	3,382
Non-controlling interests		**8**	1
(Loss)/profit for the year		**(2,393)**	3,383
Other comprehensive income		**182**	290
Total comprehensive (loss)/income for the year		**(2,211)**	3,673
Earnings per ordinary share attributable to ordinary shareholders:	6		
Basic		(129.15)p	184.41p
Diluted		(129.15)p	183.80p
Payments to ordinary shareholders in respect of the year	7		
Per share		11.7p	11.7p
Total		**220**	216
† Underlying profit before taxation	2	**466**	199

* The 2017 figures have been restated for IFRS 15 Revenue from Contracts with Customers, an update to the provisional fair values of the ITP Aero acquisition and other adjustments. See note 18 for more details.

[1] Included within cost of sales and commercial and administrative costs are exceptional charges relating to the Trent 1000 and Trent 900 Civil Aerospace programmes and restructuring costs. Further details can be found in note 2.

Condensed consolidated statement of comprehensive income

For the year ended 31 December 2018

	Notes	2018 £m	Restated * 2017 £m
(Loss)/profit for the year		**(2,393)**	3,383
Other comprehensive income (OCI)			
Actuarial movements in post-retirement schemes	13	**27**	735
Share of OCI of joint ventures and associates		**(1)**	(1)
Related tax movements		**(2)**	(307)
Items that will not be reclassified to profit or loss		**24**	427
Foreign exchange translation differences on foreign operations	16	**171**	(133)
Reclassified to income statement on disposal of L'Orange		**(19)**	–
Cash flow hedge reserve movements		**(17)**	–
Share of OCI of joint ventures and associates		**18**	(5)
Related tax movements		**5**	1
Items that may be reclassified to profit or loss		**158**	(137)
Total other comprehensive income		**182**	290
Total comprehensive (loss)/income for the year		**(2,211)**	3,673
Attributable to:			
Ordinary shareholders		**(2,219)**	3,672
Non-controlling interests		**8**	1
Total comprehensive (loss)/income for the year		**(2,211)**	3,673

* The 2017 figures have been restated for IFRS 15 Revenue from Contracts with Customers, an update to the provisional fair values of the ITP Aero acquisition and other adjustments. See note 18 for more details.

Condensed consolidated balance sheet

At 31 December 2018

	Notes	2018 £m	Restated * 31 December 2017 £m	Restated * 1 January 2017 £m
ASSETS				
Intangible assets	8	**5,295**	5,565	4,116
Property, plant and equipment	9	**4,929**	4,658	4,134
Investments – joint ventures and associates		**412**	375	555
Investments – other		**22**	26	38
Other financial assets	12	**343**	610	382
Deferred tax assets	5	**2,092**	1,451	1,785
Post-retirement scheme surpluses	13	**1,944**	2,125	1,346
Non-current assets		**15,037**	14,810	12,356
Inventories		**4,287**	3,803	3,353
Trade receivables and other assets	10	**4,690**	4,353	3,683
Contract assets	10	**2,057**	1,945	1,875
Taxation recoverable		**34**	17	32
Other financial assets	12	**22**	36	5
Short-term investments		**6**	3	3
Cash and cash equivalents		**4,974**	2,953	2,771
Current assets		**16,070**	13,110	11,722
Assets held for sale		**750**	7	5
TOTAL ASSETS		**31,857**	27,927	24,083
LIABILITIES				
Borrowings		**(858)**	(82)	(172)
Other financial liabilities	12	**(647)**	(601)	(693)
Trade payables and other liabilities	11	**(8,292)**	(6,885)	(6,133)
Contract liabilities	11	**(3,794)**	(4,104)	(3,366)
Current tax liabilities		**(138)**	(209)	(211)
Provisions for liabilities and charges		**(1,122)**	(550)	(632)
Current liabilities		**(14,851)**	(12,431)	(11,207)
Borrowings		**(3,804)**	(3,406)	(3,185)
Other financial liabilities	12	**(3,542)**	(2,461)	(5,129)
Trade payables and other liabilities	11	**(1,940)**	(2,238)	(1,822)
Contract liabilities	11	**(5,336)**	(3,607)	(2,946)
Deferred tax liabilities	5	**(962)**	(1,071)	(713)
Provisions for liabilities and charges		**(795)**	(393)	(263)
Post-retirement scheme deficits	13	**(1,303)**	(1,387)	(1,375)
Non-current liabilities		**(17,682)**	(14,563)	(15,433)
Liabilities associated with assets held for sale		**(376)**	–	–
TOTAL LIABILITIES		**(32,909)**	(26,994)	(26,640)
NET (LIABILITIES)/ASSETS		**(1,052)**	933	(2,557)
EQUITY				
Called-up share capital		**379**	368	367
Share premium account		**268**	195	181
Capital redemption reserve		**161**	162	162
Cash flow hedging reserve		**(106)**	(112)	(107)
Merger reserve		**406**	3	3
Translation reserve		**809**	657	789
Accumulated losses		**(2,991)**	(343)	(3,954)
Equity attributable to ordinary shareholders		**(1,074)**	930	(2,559)
Non-controlling interests		**22**	3	2
TOTAL EQUITY		**(1,052)**	933	(2,557)

* The figures at 1 January and 31 December 2017 have been restated for IFRS 15 Revenue from Contracts with Customers, an update to the provisional fair values of the ITP Aero acquisition and other adjustments. See note 18 for more details.

Condensed consolidated cash flow statement

For the year ended 31 December 2018

	Notes	2018 £m	Restated * 2017 £m
Reconciliation of cash flows from operating activities			
Operating (loss)/profit		**(1,161)**	366
Profit on disposal of property, plant and equipment		**11**	11
Share of results of joint ventures and associates		**(4)**	(9)
Dividends received from joint ventures and associates		**105**	79
Amortisation and impairment of intangible assets	8	**565**	343
Depreciation and impairment of property, plant and equipment	9	**521**	450
Impairment of and other movement on investments		**6**	14
Increase/(decrease) in provisions		**1,003**	(1)
Increase in inventories		**(616)**	(194)
Increase in trade receivables and other assets		**(469)**	(169)
Increase in contract assets		**(112)**	(70)
Decrease in amounts payable for financial penalties from agreements with investigating bodies		**–**	(286)
Increase/(decrease) in trade payables and other liabilities		**1,732**	398
Increase in contract liabilities		**1,419**	1,399
Cash flows on other financial assets and liabilities held for operating purposes		**(732)**	(664)
Net defined benefit post-retirement cost recognised in profit before financing		**352**	240
Cash funding of defined benefit post-retirement schemes		**(181)**	(249)
Share-based payments		**35**	34
Net cash inflow from operating activities before taxation		**2,474**	1,692
Taxation paid		**(248)**	(180)
Net cash inflow from operating activities		**2,226**	1,512
Cash flows from investing activities			
Additions of unlisted investments		**(6)**	(4)
Additions of intangible assets		**(680)**	(647)
Disposals of intangible assets		**13**	7
Purchases of property, plant and equipment		**(905)**	(730)
Disposals of property, plant and equipment		**43**	4
Acquisition of ITP Aero	16	**–**	263
Disposal of L'Orange	16	**573**	–
Investments in joint ventures and associates and other investment movements		**(13)**	(47)
Net cash outflow from investing activities		**(975)**	(1,154)
Cash flows from financing activities			
Repayment of loans		**(37)**	(160)
Proceeds from increase in loans		**1,054**	309
Capital element of finance lease payments		**(23)**	(6)
Net cash flow from increase in borrowings and finance leases		**994**	143
Interest received		**27**	14
Interest paid		**(92)**	(64)
Interest element of finance lease payments		**(5)**	(3)
Increase in short-term investments		**(3)**	–
Issue of ordinary shares (net of expenses)		**1**	21
Purchase of ordinary shares		**(1)**	(24)
Dividends to NCI		**(3)**	–
Redemption of C Shares		**(216)**	(214)
Net cash inflow/(outflow) from financing activities		**702**	(127)
Change in cash and cash equivalents		**1,953**	231
Cash and cash equivalents at 1 January		**2,933**	2,771
Exchange gains/(losses) on cash and cash equivalents		**66**	(69)
Cash and cash equivalents at 31 December		**4,952**	2,933

* The 2017 figures have been restated for IFRS 15 Revenue from Contracts with Customers, an update to the provisional fair values of the ITP Aero acquisition and other adjustments. See note 18 for more details.

	2018 £m	2017 £m
Reconciliation of movements in cash and cash equivalents to movements in net funds		
Change in cash and cash equivalents	**1,953**	231
Cash flow from increase in borrowings and finance leases	**(994)**	(143)
Cash flow from increase in short-term investments	**3**	–
Change in net funds/(debt) resulting from cash flows	**962**	88
New finance leases in the year	**(97)**	(57)
Net debt (excluding cash and cash equivalents) on acquisition of ITP Aero	**–**	(34)
Net debt (excluding cash and cash equivalents) of previously unconsolidated subsidiary	**–**	(18)
Exchange gains/(losses) on net funds	**54**	(59)
Fair value adjustments	**(69)**	131
Movement in net funds	**850**	51
Net debt at 1 January excluding the fair value of swaps	**(532)**	(583)
Net funds/(debt) at 31 December excluding the fair value of swaps	**318**	(532)
Fair value of swaps hedging fixed rate borrowings	**293**	227
Net funds/(debt) at 31 December	**611**	(305)

The movement in net funds (defined by the Group as including the items shown below) is as follows:

	At 1 January £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 £m
2018								
Cash at bank and in hand	838	170	–	–	15	–	–	**1,023**
Money market funds	589	630	–	–	3	–	–	**1,222**
Short-term deposits	1,526	1,155	–	–	48	–	–	**2,729**
Cash and cash equivalents (per balance sheet)	2,953	1,955	–	–	66	–	–	**4,974**
Overdrafts	(20)	(2)	–	–	–	–	–	**(22)**
Cash and cash equivalents (per cash flow statement)	2,933	1,953	–	–	66	–	–	**4,952**
Short-term investments	3	3	–	–	–	–	–	**6**
Other current borrowings	(39)	(38)	–	–	(1)	15	(739)	**(802)**
Non-current borrowings	(3,292)	(972)	–	–	–	(84)	739	**(3,609)**
Finance leases	(137)	(81)	–	–	(11)	–	–	**(229)**
Financial liabilities	(3,468)	(1,091)	–	–	(12)	(69)	–	**(4,640)**
Net funds excluding the fair value of swaps	(532)	865	–	–	54	(69)	–	**318**
Fair value of swaps hedging fixed rate borrowings	227					66		**293**
Net funds	(305)	865	–	–	54	(3)	–	**611**
2017								
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
Cash and cash equivalents (per balance sheet)	2,771	251	–	–	(69)	–	–	2,953
Overdrafts	–	(20)	–	–	–	–	–	(20)
Cash and cash equivalents (per cash flow statement)	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 of 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)

Condensed consolidated statement of changes in equity

For the year ended 31 December 2018

	Attributable to ordinary shareholders									
	Share capital	Share premium	Capital redemption reserve	Cash flow hedging reserve	Merger reserve	Translation reserve	Accumulated losses [2]	Total	Non-controlling interests (NCI)	Total equity
	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
At 1 January 2017, as previously reported	367	181	162	(107)	3	811	445	1,862	2	1,864
Impact of adopting IFRS 15 [1]	–	–	–	–	–	(22)	(4,442)	(4,464)	–	(4,464)
Other [1]	–	–	–	–	–	–	43	43	–	43
At 1 January 2017 restated [1]	367	181	162	(107)	3	789	(3,954)	(2,559)	2	(2,557)
Profit for the year [1]	–	–	–	–	–	–	3,382	3,382	1	3,383
Foreign exchange translation differences on foreign operations [1]	–	–	–	–	–	(133)	–	(133)	–	(133)
Movements on post-retirement schemes	–	–	–	–	–	–	735	735	–	735
OCI of joint ventures and associates	–	–	–	(5)	–	–	(1)	(6)	–	(6)
Related tax movements	–	–	–	–	–	1	(307)	(306)	–	(306)
Total comprehensive income for the year	–	–	–	(5)	–	(132)	3,809	3,672	1	3,673
Arising on issue of ordinary shares	1	14	–	–	–	–	(14)	1	–	1
Issue of C Shares [3]	–	–	(215)	–	–	–	1	(214)	–	(214)
Redemption of C Shares	–	–	215	–	–	–	(215)	–	–	–
Ordinary shares purchased	–	–	–	–	–	–	(24)	(24)	–	(24)
Share-based payments – direct to equity [4]	–	–	–	–	–	–	51	51	–	51
Related tax movements	–	–	–	–	–	–	3	3	–	3
Other changes in equity in the year	1	14	–	–	–	–	(198)	(183)	–	(183)
At 31 December 2017	**368**	**195**	**162**	**(112)**	**3**	**657**	**(343)**	**930**	**3**	**933**
Impact of adopting IFRS 9	**–**	**–**	**–**	**–**	**–**	**–**	**(15)**	**(15)**	**–**	**(15)**
At 1 January 2018	**368**	**195**	**162**	**(112)**	**3**	**657**	**(358)**	**915**	**3**	**918**
(Loss)/profit for the year	**–**	**–**	**–**	**–**	**–**		**(2,401)**	**(2,401)**	**8**	**(2,393)**
Foreign exchange translation differences on foreign operations	**–**	**–**	**–**	**–**	**–**	**171**	**–**	**171**	**–**	**171**
Reclassified to the income statement on disposal of L'Orange	**–**	**–**	**–**	**–**	**–**	**(19)**	**–**	**(19)**	**–**	**(19)**
Movements on post-retirement schemes	**–**	**–**	**–**	**–**	**–**	**–**	**27**	**27**	**–**	**27**
Debited to cash flow hedge reserve	**–**	**–**	**–**	**(17)**	**–**	**–**	**–**	**(17)**	**–**	**(17)**
OCI of joint ventures and associates	**–**	**–**	**–**	**18**	**–**	**–**	**(1)**	**17**	**–**	**17**
Related tax movements	**–**	**–**	**–**	**5**	**–**	**–**	**(2)**	**3**	**–**	**3**
Total comprehensive loss for the year	**–**	**–**	**–**	**6**	**–**	**152**	**(2,377)**	**(2,219)**	**8**	**(2,211)**
Shares issued in respect of acquisition of ITP Aero	**10**	**–**	**–**	**–**	**403**	**–**	**–**	**413**	**–**	**413**
Other issues of ordinary shares	**1**	**73**	**–**	**–**	**–**	**–**	**–**	**74**	**–**	**74**
Issue of C Shares [3]	**–**	**–**	**(217)**	**–**	**–**	**–**	**1**	**(216)**	**–**	**(216)**
Redemption of C Shares	**–**	**–**	**216**	**–**	**–**	**–**	**(216)**	**–**	**–**	**–**
Shares issued to employee share trust	**–**	**–**	**–**	**–**	**–**	**–**	**(75)**	**(75)**	**–**	**(75)**
Share-based payments – direct to equity [4]	**–**	**–**	**–**	**–**	**–**	**–**	**32**	**32**	**–**	**32**
Transfer of joint operations to subsidiaries	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**15**	**15**
Transactions with NCI	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**(4)**	**(4)**
Related tax movements	**–**	**–**	**–**	**–**	**–**	**–**	**2**	**2**	**–**	**2**
Other changes in equity in the year	**11**	**73**	**(1)**	**–**	**403**	**–**	**(256)**	**230**	**11**	**241**
At 31 December 2018	**379**	**268**	**161**	**(106)**	**406**	**809**	**(2,991)**	**(1,074)**	**22**	**(1,052)**

1 The 2017 figures have been restated for IFRS 15 Revenue from Contracts with Customers, an update to the provisional fair values of the ITP Aero acquisition and other adjustments. See note 18 for more details.

2 At 31 December 2018, **13,538,921** ordinary shares with a net book value of **£123m** (2017: 6,466,153, 2016: 6,854,216 ordinary shares with net book values of £52m and £56m respectively) were held for the purpose of share-based payment plans and included in accumulated losses. During the year, **468,165** ordinary shares with a net book value of **£4m** (2017: 4.992,304 shares with a net book value of £42m) vested in share-based payment plans. During the year, the Company acquired **80,810** (2017: 92,537) of its ordinary shares via reinvestment of dividends received on its own shares and purchased **nil** (2017: 2,711,349) of its ordinary shares through purchases on the London Stock Exchange. During the year, the Company issued **47,556,914** new ordinary shares relating to the first five instalments for the acquisition of ITP Aero and **7,460,173** new ordinary shares (2017: 1,740,355) to the Group's share trust for its employee share-based payment plans with a net book value of **£74m** (2017: £14m).

3 In Rolls-Royce Holdings plc's own Financial Statements, C shares are issued from the merger reserve, this reserve was created by a scheme of arrangement in 2011. 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.

4 Share-based payments – direct to equity is the share based payment charge for the year less the actual cost of vesting excluding those vesting from own shares and cash received on share based schemes vesting.

1 Basis of preparation and accounting policies

Reporting entity

Rolls-Royce Holdings plc (the ‘Company’) is a public company incorporated under the Companies Act 2006 and domiciled in the UK. These condensed Consolidated Financial Statements of the Company as at and for the year ended 31 December 2018 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.

The consolidated financial statements of the Group as at and for the year ended 31 December 2018 (2018 Annual Report) are available upon request from the Company Secretary, Rolls-Royce plc, 62 Buckingham Gate, London SW1E 6AT.

Statement of compliance

These condensed Consolidated Financial Statements have been prepared in accordance with International Financial Reporting Standards (IFRS) adopted for use in the EU. They do not include all of the information required for full annual statements, and should be read in conjunction with the 2018 Annual Report.

The comparative figures for the financial year 31 December 2017 are not the Group's statutory accounts for that financial year. Those accounts have been reported on by the Group's auditors and delivered to the registrar of companies. The report of the auditors was (i) unqualified, (ii) did not include a reference to any matters to which the auditors drew attention by way of emphasis without qualifying their report, and (iii) did not contain a statement under section 498(2) or (3) of the Companies Act 2006.

The Board of directors approved the condensed consolidated year financial statements on 27 February 2019.

Significant accounting policies

IFRS 15 *Revenue from Contracts with Customers*

The Group adopted IFRS 15 on 1 January 2018 using the ‘full’ retrospective approach.

IFRS 15 provides a single, principles based five-step model to be applied to all sales contracts with customers. It is based on the transfer of control of goods and services to customers. In summary:

- revenues on original equipment (OE) and time and material aftermarket contracts are generally recognised at the point of delivery;
- revenues on long-term aftermarket contracts and some OE contracts (generally for products without an alternative use to the specific contract) are recognised on an activity basis using the costs incurred as the measure of the activity;
- costs to fulfil contracts are recognised as they are incurred; and
- costs to obtain a contract are amortised over the period of the contract against revenue.

The impact on the Group of adopting IFRS 15 is very significant, with a cumulative adjustment to equity at 1 January 2017 being £4.5bn.

The Income Statement for 2017 and the Balance Sheets for 1 January and 31 December 2017 have been restated to reflect the adoption of IFRS 15 – see note 18.

IFRS 9 *Financial Instruments*

The Group adopted IFRS 9 on 1 January 2018. IFRS 9 relates to the accounting for financial instruments and covers:

- classification and measurement – certain trade receivables are now classified as ‘fair value through other comprehensive income’;
- impairment – additional requirements for the measurement of expected credit losses on financial assets; and
- hedge accounting – amendments to requirements.

Except for hedge accounting, retrospective application is not required with any adjustment being made to reserves on 1 January 2018. In accordance with the transitional provisions in IFRS 9, the Group has not restated its 2017 comparative information. For hedge accounting, the Group considered the new requirements; no changes to the existing hedge relationships were necessary and the Group has applied the standard prospectively.

The cumulative impact of IFRS 9 on the balance sheet at 1 January 2018 of £15m is set out in more detail in note 18.

Revenue recognition

Key judgement – Whether Civil Aerospace OE and aftermarket contracts should be combined

In the Civil Aerospace business, OE contracts are with the airframers (except for spare engines), while the aftermarket contracts are with the aircraft operators, although there may be interdependencies between them. IFRS 15 includes additional guidance on the combination of contracts, in particular that contracts with unrelated parties should not be combined. Notwithstanding the interdependencies, the Directors’ considered that, as the operators are ultimately purchasing an aircraft from the airframer, of which the engines are part, the engine contract should be considered separately from the aftermarket contract. In making this judgement, they also took account of evolving industry practice.

Key estimate – Estimates of future revenues and costs of long-term contractual arrangements

The Group has long-term contracts that fall into different accounting periods and which can extend over significant periods (generally up to 25 years) – 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 and the costs to be incurred; lifecycle cost improvements over the term of the contracts and escalation of revenue and costs. The estimates take account of the inherent uncertainties, constraining the expected level of revenue as appropriate. 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 and economic forecasts.

Key judgement – How performance on long-term aftermarket contracts should be measured
The Group generates a significant proportion of its revenue from aftermarket arrangements. These aftermarket contracts, such as TotalCare and CorporateCare agreements in the Civil Aerospace business, 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' engines 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 basis for measuring progress is a matter of judgement. The Directors consider that the stage of completion of the contract is best measured by using the actual costs incurred to date compared to the estimated costs to complete the performance obligations, as this reflects the extent of completion of the activities performed.

Key judgement - Whether any costs should be treated as wastage
In rare circumstances the Group may incur costs of wasted material, labour or other resources to fulfil a contract where the level of cost was not reflected in the contract price. The identification of such costs is a matter of judgement and would only be expected to arise where there has been a series of abnormal events which give rise to a significant level of cost which is also of a nature that the Group would not expect to incur and hence is not reflected in the contract price. For example, where there are technical issues that require resolution to meet regulatory requirements; have a wide-ranging impact across a product type; and cause significant operational disruption to customers. Similarly, in these rare circumstances, significant disruption costs to support customers resulting from the actual performance of a delivered good or service may be treated as a cost in the period. Any costs identified as wastage are expensed when the obligation to incur them arises. (See note 2).

Key judgement – Whether sales of spare engines to joint ventures are at fair value
The Civil Aerospace business maintains a pool of spare engines to support its customers. Some of these engines are sold to, and held by, joint venture companies. The assessment of whether the sales price reflects fair value is a key judgement.

Revenue recognised comprises sales to the Group's customers after discounts and amounts payable to customers. The transaction price of a contract is typically clearly stated within the contract, although the absolute amount may be dependent on escalation indices and long-term contracts require the key estimates highlighted above. Refund liabilities where sales are made with a right of return are not typical in the Group's contracts. Where they do exist, and consideration received, a portion, based on an assessment of the expected refund liability is recognised within other payables. Revenue 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 standard OE, spare parts and time and material overhaul services are generally recognised on transfer of control to the customer. This is generally on delivery to the customer, unless the specific contractual terms indicate a different point. Management consider whether there is a need to constrain the amount of revenue to be recognised on delivery based on the contractual position and any relevant facts, however, this is not typically required.

Sales of services and OE specifically designed for the contract (most significantly in the Defence business) are recognised by reference to the progress towards completion of the performance obligation, using the costs method described in the key judgements, provided the outcome of contracts can be assessed with reasonable certainty.

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, in particular in the Civil Aerospace large-engine business, the Group will often agree contractual prices for OE deliveries that take into account the anticipated aftermarket arrangements. As described in the key judgements, these contracts are not combined. The consideration in the OE contract is therefore allocated to OE performance obligations and the consideration in the aftermarket contract to aftermarket performance obligations.

- Future variable revenue from long-term contracts is constrained to take account of the risk of non-recovery of resulting contract balances from reduced utilisation e.g. engine flying hours, based on historical forecasting experience and the risk of aircraft being parked by the customer.
- A significant amount of revenue and cost related to long-term contract accounting is denominated in currencies other than that of the relevant Group undertaking, most significantly US dollar transactions in sterling and euro denominated undertakings. These are translated at estimated long-term exchange rates.
- 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 accounts for a portfolio of contracts together as the effect on the Consolidated Financial Statements would not differ materially from applying the standard to the individual contracts in the portfolio. When accounting for a portfolio of long-term service arrangements the Group uses estimates and assumptions that reflect the size and composition of the portfolio.
- A contract asset/liability is recognised where payment is received in arrears/advance of the costs incurred to meet performance obligations.
- Where material, wastage costs (see key judgements above) are recorded as an exceptional non-underlying expense.

If the expected costs to fulfil a contract exceed the expected revenues, a contract loss provision is recognised for the excess costs.

The Group pays participation fees to airframe manufacturers, its customers for OE on certain programmes. Amounts paid are initially treated as contract assets within trade and other receivables and subsequently charged as a reduction to the OE revenue when the engine is transferred to the customer.

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. Where costs to obtain a contract are recognised in the balance sheet and amortised over the performance of the related contract, an average of three years.

Financial instruments - Impairment of financial assets and contract assets
IFRS 9 codifies the basis for the accounting of expected credit losses (ECLs) on financial assets and contract assets resulting from transactions within the scope of IFRS 15. The Group has adopted the simplified approach to provide for ECLs, measuring the loss allowance at a probability weighted amount that considers reasonable and supportable information about past events, current conditions and forecasts of future economic conditions of the customers. The ECLs are updated at each reporting date to reflect changes in credit risk since initial recognition. ECLs are calculated for all financial assets in scope, regardless of whether or not they are overdue or not. On adoption of IFRS 9 on 1 January 2018, additional ECLs of £17m were recognised. Since adoption, there have been no material changes in estimation and assumption that have led to a significant change in the ECLs allowance.

Financial instruments – Hedge accounting
Forward foreign exchange contracts and commodity swaps (derivative financial instruments) are held to manage the cash flow exposures of forecast transactions denominated in foreign currencies or in commodities respectively. In general, the Group has chosen to not apply hedge accounting in respect of these exposures. Prior to its acquisition in 2017, ITP Aero adopted hedge accounting for its equivalent exposures. It has continued to do so, although the value of the related derivatives is not significant relative to those held by the rest of the Group.

All existing effective hedging relationships continue to qualify for hedge accounting under IFRS 9.

Revisions to IFRS not applicable in 2018

Standards and interpretations issues by the IASB are only applicable if endorsed by the EU.

IFRS 16 *Leases*
The new lease accounting standard IFRS 16 is effective for the year beginning 1 January 2019. It requires all leases to be recognised on the balance sheet with a right-of-use asset capitalised and depreciated over the estimated lease term together with a corresponding liability that will reduce over the same period with an appropriate interest charge recognised. IAS 17 *Leases* only requires leases categorised as finance leases to be recognised on the balance sheet.

At 31 December 2018 the Group held operating leases with a future obligation of £2.3bn (excluding the disposal group held for sale) on a non-discounted basis. The impact of IFRS 16 will be as follows.

Lease liability
A lease liability of £2.1bn will be recognised, being the present value of the future payments, using the Group's incremental borrowing rate applicable to the currency and term of each lease. This is incremental to the existing finance lease liabilities of £0.2bn, resulting in a total liability of £2.3bn. The most significant lease liabilities relate to aircraft engines (£1.7bn) and property (£0.5bn).

The liability relating to operating leases is lower than the IAS 17 future lease obligation due to the discounting of the future payments. Existing balance sheet liabilities for leased aero engine residual value guarantees will be included in the lease liability classification.

Where leases are held in non-sterling currencies, the spot exchange rates on 1 January 2019 have been used to value them. Lease liabilities will be revalued to spot exchange rates at each future balance sheet date. The most significant exposure will be to changes in the US dollar where a movement of 10 cents would have an impact of around £100m on the Group's lease liability.

Right-of-use asset
A right-of-use asset of £1.8bn will be recognised in addition to the existing £0.2bn of property, plant and equipment under finance lease contracts, resulting in a total asset of £2.0bn. The right-of-use asset has been measured either: as if the standard had applied since commencement of the lease (for a small number of high value property leases); or at an amount equal to the lease liability on transition.

The opening right-of-use asset is lower than the opening lease liability due to a combination of:

- the recognition of high value property leases from the commencement of the lease, resulting in: (i) the amortisation of the right-of-use asset being greater than the reduction in the lease liability over the same period; and (ii) where the lease liability is not in the functional currency of the relevant entity it will be revalued for changes in foreign exchange rates, while the right-of use-asset will not revalued; and
- the right-of-use asset has been reduced to reflect charges previously recognised in the Income Statement when aero engine residual value liabilities and an onerous lease provision were established.

Based on the current portfolio of lease contracts above, the Group's full year income statement expense under IFRS 16 in 2019 will be around £0.3bn depreciation expense within operating profit and a £0.1bn finance charge. The total pre-tax charge to the income statement will be broadly consistent with the previous accounting standard.

Transition
The Group is applying the modified retrospective transition method under which comparative information will not be restated and has elected to use the following practical expedients permitted by the Standard:

- On initial application, IFRS 16 has only been applied to contracts that were previously classified as leases; and
- Lease contracts with a duration of less than 12 months will continue to be expensed to the income statement on a straight-line basis over the lease term.
- The lease term has been determined with the use of hindsight where the contract contains options to extend the lease.

The cumulative impact of less than £0.1bn resulting from the adoption of the new standard will be recognised in opening retained earnings as at 1 January 2019.

2 Analysis by business segment

The analysis by Divisions (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 (who act as the Chief Operating Decision Maker as defined by IFRS 8). Our four Divisions are set out below and referred to collectively as the 'core businesses'.

Civil Aerospace	-	development, manufacture, marketing and sales of commercial aero engines and aftermarket services.
Power Systems	-	development, manufacture, marketing and sales of reciprocating engines, power systems and nuclear systems for civil power generation.
Defence	-	development, manufacture, marketing and sales of military aero engines, naval engines, submarines and aftermarket services.
ITP Aero	-	design, research and development, manufacture and casting, assembly and test of aeronautical engines and gas turbines.

In 2017, the Group had five operating segments; Civil Aerospace, Defence, Power Systems, Marine and Nuclear. Following the decision to simplify the Group, announced on 17 January 2018, the 2017 segmental analysis has been presented on a consistent basis with the new structure.

Non-core businesses are shown separately and include the results of L'Orange until the date of its disposal on 1 June 2018 (see note 16), Commercial Marine (held for sale from 30 June 2018) and other smaller businesses including former Energy businesses not included in the disposal to Siemens in 2014 (Retained Energy).

Underlying results

We present the financial performance of our businesses in accordance with IFRS 8 and consistently with the basis on which performance is communicated to the Board each month. Underlying results are presented to reflect the economic impact of the Group's foreign exchange risk management activities.Trading transactions are valued at the exchange rates achieved on the derivative contracts settled to cover the net exposures.

Underlying performance excludes the following:

- the effect of acquisition accounting and business disposals;
- the impairment of goodwill and other assets arising on acquisition;
- exceptional items.

We classify items as "exceptional" where the Directors believe that presentation of our results in this way is more relevant to an understanding of our financial performance, as exceptional items are identified by virtue of their size, nature or incidence.

In determining whether an event or transaction is exceptional, management considers quantitative as well as qualitative factors such as the frequency or predictability of occurrence. Examples of exceptional items include one-time costs and charges in respect of aerospace programmes, costs of restructuring programmes and one time past service charges and credits on our post-retirement schemes.

Exceptional items are not allocated to segments and may not be comparable to similarly titled measures used by other companies.

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 are also excluded.

See page 12 for the reconciliation between Underlying performance and Reported performance.

The following analysis sets out the results of the core businesses on the basis described on the previous page and also includes a reconciliation of the underlying results to those reported in the consolidated income statement.

	Civil Aerospace £m	Power Systems £m	Defence £m	ITP Aero £m	Corporate £m	Inter-segment £m	Core businesses £m
Year ended 31 December 2018							
Underlying revenue from sale of original equipment	**3,119**	**2,322**	**1,452**	**666**	**–**	**(375)**	**7,184**
Underlying revenue from aftermarket services	**4,259**	**1,162**	**1,672**	**113**	**–**	**(54)**	**7,152**
Total underlying revenue	**7,378**	**3,484**	**3,124**	**779**	**–**	**(429)**	**14,336**
Gross profit	**493**	**882**	**690**	**156**	**–**	**35**	**2,256**
Commercial and administrative costs	**(336)**	**(377)**	**(170)**	**(57)**	**(51)**	**–**	**(991)**
Restructuring	**(8)**	**(1)**	**(3)**	**(2)**	**–**	**–**	**(14)**
Research and development costs	**(332)**	**(188)**	**(100)**	**(30)**	**–**	**–**	**(650)**
Share of results of joint ventures and associates [1]	**21**	**1**	**10**	**–**	**–**	**–**	**32**
Underlying operating (loss)/profit	**(162)**	**317**	**427**	**67**	**(51)**	**35**	**633**
Year ended 31 December 2017 restated *							
Underlying revenue from sale of original equipment	2,890	1,956	1,398	–	–	–	6,244
Underlying revenue from aftermarket services	3,708	1,052	1,782	–	–	–	6,542
Total underlying revenue	6,598	3,008	3,180	–	–	–	12,786
Gross profit	473	797	728	–	–	–	1,998
Commercial and administrative costs	(362)	(350)	(188)	–	(55)	–	(955)
Restructuring	(11)	(1)	(4)	–	–	–	(16)
Research and development costs	(454)	(181)	(89)	–	–	–	(724)
Share of results of joint ventures and associates [1]	11	(4)	7	–	–	–	14
Underlying operating (loss)/profit	(343)	261	454	–	(55)	–	317

* The 2017 figures have been restated for IFRS 15, an update to the provisional fair values of the ITP Aero acquisition and other adjustments. See note 18 for more details.
[1] The elimination of transactions with joint ventures has been included in the results of joint ventures and associates; previously this was included within cost of sales.

Reconciliation to reported results

	Core businesses £m	Non-core businesses [1] £m	Total underlying £m	Underlying adjustments and foreign exchange £m	Group at actual exchange rates £m
Year ended 31 December 2018					
Revenue from sale of original equipment	**7,184**	**346**	**7,530**	**285**	**7,815**
Revenue from aftermarket services	**7,152**	**385**	**7,537**	**377**	**7,914**
Total revenue	**14,336**	**731**	**15,067**	**662**	**15,729**
Gross profit	**2,256**	**194**	**2,450**	**(1,252)**	**1,198**
Commercial and administrative costs	**(991)**	**(170)**	**(1,161)**	**(434)**	**(1,595)**
Restructuring	**(14)**	**(2)**	**(16)**	**16**	**–**
Research and development costs	**(650)**	**(39)**	**(689)**	**(79)**	**(768)**
Share of results of joint ventures and associates [2]	**32**	**–**	**32**	**(28)**	**4**
Operating profit/(loss)	**633**	**(17)**	**616**	**(1,777)**	**(1,161)**
Gains arising on disposal of L'Orange	**–**	**–**	**–**	**358**	**358**
Profit/(loss) before financing and taxation	**633**	**(17)**	**616**	**(1,419)**	**(803)**
Net financing	**(150)**	**–**	**(150)**	**(1,994)**	**(2,144)**
Profit/(loss) before taxation	**483**	**(17)**	**466**	**(3,413)**	**(2,947)**
Taxation	**(152)**	**(9)**	**(161)**	**715**	**554**
Profit/(loss) for the year	**331**	**(26)**	**305**	**(2,698)**	**(2,393)**
Attributable to:					
Ordinary shareholders			**297**	**(2,698)**	**(2,401)**
Non-controlling interests			**8**	**–**	**8**
Year ended 31 December 2017 restated *					
Revenue from sale of original equipment	6,244	504	6,748	520	7,268
Revenue from aftermarket services	6,542	381	6,923	556	7,479
Total revenue	12,786	885	13,671	1,076	14,747
Gross profit	1,998	248	2,246	176	2,422
Commercial and administrative costs	(955)	(195)	(1,150)	(72)	(1,222)
Restructuring	(16)	(2)	(18)	18	–
Research and development costs	(724)	(52)	(776)	(67)	(843)
Share of results of joint ventures and associates [2]	14	(10)	4	5	9
Operating profit/(loss)	317	(11)	306	60	366
Gains arising on acquisition of ITP Aero	–	–	–	785	785
Profit/(loss) before financing and taxation	317	(11)	306	845	1,151
Net financing	(106)	(1)	(107)	2,854	2,747
Profit/(loss) before taxation	211	(12)	199	3,699	3,898
Taxation	(131)	(24)	(155)	(360)	(515)
Profit/(loss) for the year	**80**	**(36)**	44	3,339	3,383
Attributable to:					
Ordinary shareholders			43	3,339	3,382
Non-controlling interests			1	–	1

* The 2017 figures have been restated for IFRS 15, an update to the provisional fair values of the ITP Aero acquisition and other adjustments. See note 18 for more details.
[1] Includes Commercial Marine (held for sale from 30 June 2018), L'Orange sold on 1 June 2018 and other smaller non-core businesses.
[2] The elimination of transactions with joint ventures has been included in the results of joint ventures and associates, previously this was included within cost of sales.

Disaggregation of revenue from contracts with customers

	Civil Aerospace £m	Power Systems £m	Defence £m	ITP Aero £m	Corporate £m	Inter-segment £m	Core businesses £m
Year ended 31 December 2018							
Original equipment recognised at a point in time	**3,119**	**2,258**	**694**	**666**	**–**	**(375)**	**6,362**
Original equipment recognised over time	**–**	**64**	**758**	**–**	**–**	**–**	**822**
Aftermarket services recognised at a point in time	**1,575**	**1,019**	**718**	**113**	**–**	**21**	**3,446**
Aftermarket services recognised over time	**2,630**	**143**	**954**	**–**	**–**	**(75)**	**3,652**
Total underlying customer contract revenue [1]	**7,324**	**3,484**	**3,124**	**779**	**–**	**(429)**	**14,282**
Other underlying revenue	**54**	**–**	**–**	**–**	**–**	**–**	**54**
Total underlying revenue	**7,378**	**3,484**	**3,124**	**779**	**–**	**(429)**	**14,336**
Year ended 31 December 2017							
Original equipment recognised at a point in time	2,890	1,931	682	–	–	–	5,503
Original equipment recognised over time	–	25	716	–	–	–	741
Aftermarket services recognised at a point in time	1,329	929	829	–	–	–	3,087
Aftermarket services recognised over time	2,343	123	953	–	–	–	3,419
Total underlying customer contract revenue [1]	6,562	3,008	3,180	–	–	–	12,750
Other underlying revenue	36	–	–	–	–	–	36
Total underlying revenue	6,598	3,008	3,180	–	–	–	12,786

[1] Includes **£(196)m** (2017: £(14)m) of revenue recognised in the year relating to performance obligations satisfied in previous years.

	Core businesses £m	Non-core businesses [1] £m	Total underlying £m	Underlying adjustments and foreign exchange £m	Group results at actual exchange rates £m
Year ended 31 December 2018					
Original equipment recognised at a point in time	**6,362**	**63**	**6,425**	**283**	**6,708**
Original equipment recognised over time	**822**	**283**	**1,105**	**2**	**1,107**
Aftermarket services recognised at a point in time	**3,446**	**365**	**3,811**	**148**	**3,959**
Aftermarket services recognised over time	**3,652**	**20**	**3,672**	**229**	**3,901**
Total customer contract revenue	**14,282**	**731**	**15,013**	**662**	**15,675**
Other revenue	**54**	**–**	**54**	**–**	**54**
Total revenue	**14,336**	**731**	**15,067**	**662**	**15,729**
Year ended 31 December 2017					
Original equipment recognised at a point in time	5,503	106	5,609	520	6,129
Original equipment recognised over time	741	398	1,139	–	1,139
Aftermarket services recognised at a point in time	3,087	373	3,460	165	3,625
Aftermarket services recognised over time	3,419	8	3,427	391	3,818
Total customer contract revenue	12,750	885	13,635	1,076	14,711
Other revenue	36	–	36	–	36
Total revenue	12,786	885	13,671	1,076	14,747

[1] Includes Commercial Marine (held for sale from 30 June 2018), L'Orange sold on 1 June 2018 and other smaller non-core businesses.

Order backlog

Contracted consideration that is expected to be recognised as revenue when performance obligations are satisfied in the future (referred to as order backlog) is as follows:

	Within five years £bn	After five years £bn	Total £bn
Civil Aerospace	**22.1**	**30.2**	**52.3**
Power Systems	**2.9**	**0.2**	**3.1**
Defence	**6.3**	**0.5**	**6.8**
ITP Aero	**0.8**	**0.1**	**0.9**
	32.1	**31.0**	**63.1**

	Total assets		Total liabilities		Net assets/(liabilities)	
	2018 £m	2017 £m	**2018 £m**	2017 £m	**2018 £m**	2017 £m
Civil Aerospace	**14,652**	13,395	**(21,310)**	(16,598)	**(6,658)**	(3,203)
Power Systems	**3,759**	3,773	**(1,668)**	(1,388)	**2,091**	2,385
Defence	**2,628**	2,161	**(2,924)**	(2,560)	**(296)**	(399)
ITP Aero	**2,210**	2,190	**(1,168)**	(1,538)	**1,042**	652
Inter-segment	**(1,621)**	(1,557)	**1,743**	1,799	**122**	242
Core businesses	**21,628**	19,962	**(25,327)**	(20,285)	**(3,699)**	(323)
Non-core businesses	**136**	1,182	**(141)**	(554)	**(5)**	628
Held for sale assets/(liabilities)	**750**	7	**(376)**	–	**374**	7
Net funds/(debt)	**5,273**	3,183	**(4,662)**	(3,488)	**611**	(305)
Tax assets/(liabilities)	**2,126**	1,468	**(1,100)**	(1,280)	**1,026**	188
Post-retirement scheme surpluses/(deficits)	**1,944**	2,125	**(1,303)**	(1,387)	**641**	738
	31,857	27,927	**(32,909)**	(26,994)	**(1,052)**	933

Group employees average during the year	2018	Restated * 2017
Civil Aerospace	**25,500**	24,300
Power Systems	**10,500**	10,300
Defence	**10,500**	10,300
ITP Aero	**3,700**	–
Corporate [1]	**100**	200
Core businesses	**50,300**	45,100
Non-core business [2]	**4,200**	4,900
	54,500	50,000

* The segmental employee numbers have been restated to reflect the Group simplification described in note 2.

1 Corporate consists of 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 Includes Commercial Marine (held for sale from 30 June 2018), L'Orange (sold on 1 June 2018) and Retained Energy.

Underlying adjustments	2018			2017 Restated *		
	Revenue £m	**Profit before financing £m**	**Net financing £m**	Revenue £m	Profit before financing £m	Net financing £m
Underlying performance	**15,067**	**616**	**(150)**	13,671	306	(107)
Recognise revenue at exchange rate on date of transaction	**781**	**–**	**–**	1,076	–	–
Realised losses on settled derivative contracts [1]	**–**	**219**	**465**	–	453	195
Net unrealised fair value changes to derivative contracts [2]	**–**	**(1)**	**(2,144)**	–	24	2,648
Effect of currency on contract accounting	**–**	**(265)**	**–**	–	(153)	–
Revaluation of trading assets and liabilities	**–**	**23**	**(302)**	–	(6)	1
Net post-retirement scheme financing	**–**	**–**	**23**	–	–	1
Financial RRSAs – foreign exchange differences and changes in forecast payments	**–**	**–**	**(2)**	–	–	12
Gains arising on the acquisition of ITP Aero	**–**	**–**	**–**	–	785	–
Effect of acquisition accounting	**–**	**(175)**	**(8)**	–	(129)	–
Disposal of L'Orange [3]	**–**	**358**	**–**	–	–	–
Impairment of goodwill [4]	**–**	**(155)**	**–**	–	–	–
Trent 1000 exceptional charges [5]	**–**	**(790)**	**(15)**	–	–	–
Trent 900 exceptional charges [5]	**(119)**	**(186)**	**–**	–	–	–
Exceptional restructuring [6]	**–**	**(317)**	**–**	–	(104)	–
Pension equalisation [7]	**–**	**(121)**	**–**	–	–	–
Other	**–**	**(9)**	**(11)**	–	(25)	(3)
Total underlying adjustments	**662**	**(1,419)**	**(1,994)**	1,076	845	2,854
Reported per consolidated income statement	**15,729**	**(803)**	**(2,144)**	14,747	1,151	2,747

* The 2017 figures have been restated for IFRS 15, an update to the provisional fair values of the ITP Aero acquisition and other adjustments. See note 18 for more details.

1 The adjustments for realised (gains)/losses on settled derivative contracts include adjustments to reflect the losses/(gains) in the same period as the related trading cash flows.

2 The adjustments for unrealised fair value changes to derivative contracts include those included in equity accounted joint ventures and exclude those for which the related trading contracts have been cancelled when the fair value changes are recognised immediately in underlying profit.

3 Gain on disposal of L'Orange business to Woodward Inc. on 1 June 2018 (note 16).

4 Relates to the impairment of Commercial Marine goodwill given the planned disposal in 2019 (note 8).

The table below summarises the exceptional items recorded in 2018 and 2017.

	Year to 31 December 2018 £m	2017 £m
Programme exceptional items [5]	**976**	–
Related foreign exchange impact [5]	**147**	–
Restructuring charge [6]	**317**	104
Pension equalisation charge [7]	**121**	–
	1,561	104

5 Included within programme exceptional items is £790m (£905m at prevailing exchange rates) in respect of the abnormal wastage costs on the Trent 1000. In addition there is an exceptional item of £186m (£218m at prevailing exchange rates) that relates to Airbus's decision to cease A380 deliveries in 2021.

6 The Group recorded an exceptional restructuring charge of **£317m** (2017: £104m) in the year. The costs include: £223m in respect of the Group-wide restructuring programme announced on 14 June 2018; costs relating to ongoing multi-year significant restructuring programmes including restructuring at Power Systems RRPS2018) and in respect of Defence, reflecting actions to remove cost and improve operational efficiency.

7 The cost of equalisation of pension benefits between men and women - see note 13.

3 Research and development

	2018 £m	Restated * 2017 £m
Expenditure in the year	**(1,145)**	(1,041)
Capitalised as intangible assets	**498**	347
Amortisation and impairment of capitalised costs [1]	**(121)**	(149)
Net cost recognised in the income statement	**(768)**	(843)
Underlying adjustments relating to the effects of acquisition accounting and foreign exchange	**79**	67
Net underlying cost recognised in the income statement	**(689)**	(776)

* The 2017 figures have been restated for the revised policy for recognition of entry fees received from risk and revenue sharing arrangements as a result of the adoption of IFRS 15. See note 18 for more details.

1 From 1 January 2018, the Group adopted the approach of amortising programme assets on a 15-year straight-line basis pro rata over the estimated number of units produced.

4 Net financing

	2018		2017 Restated *	
	Per consolidated income statement £m	***Underlying financing* [1] *£m***	Per consolidated income statement £m	*Underlying financing £m*
Interest receivable	**27**	***27***	11	*11*
Net fair value gains on foreign currency contracts	**–**	**–**	2,611	–
Financial RRSAs – foreign exchange differences and changes in forecast payments	**25**	**–**	17	–
Net fair value gains on commodity contracts	**–**	**–**	37	–
Financing on post-retirement scheme surpluses	**56**	**–**	39	–
Net foreign exchange gains	**163**	**–**	196	–
Financing income	**271**	***27***	2,911	*11*
Interest payable	**(107)**	***(99)***	(67)	*(64)*
Net fair value losses on foreign currency contracts	**(2,122)**	**–**	–	–
Financial RRSAs – foreign exchange differences and changes in forecast payments	**(27)**	**–**	(5)	–
Financial charge relating to financial RRSAs	**(8)**	***(8)***	(5)	*(5)*
Net fair value losses on commodity contracts	**(22)**	**–**	–	–
Financing on post-retirement scheme deficits	**(33)**	**–**	(38)	–
Other financing charges	**(96)**	***(70)***	(49)	*(49)*
Financing costs	**(2,415)**	***(177)***	(164)	*(118)*
Net financing	**(2,144)**	***(150)***	2,747	*(107)*
Analysed as:				
Net interest payable	**(80)**	***(72)***	(56)	*(53)*
Net fair value (losses)/gains on derivative contracts	**(2,144)**	**–**	2,648	–
Net post-retirement scheme financing	**23**	**–**	1	–
Net other financing	**57**	***(78)***	154	*(54)*
Net financing	**(2,144)**	***(150)***	2,747	*(107)*

* The 2017 figures have been restated for IFRS 15, an update to the provisional fair values of the ITP Aero acquisition and other adjustments. See note 18 for more details.

1 See note 2 for definition of underlying results.

5 Taxation

	UK		Overseas		Total	
	2018 £m	Restated * 2017 £m	2018 £m	Restated * 2017 £m	2018 £m	Restated * 2017 £m
Current tax charge for the year	**13**	33	**167**	244	**180**	277
Less double tax relief	**–**	–	**–**	–	**–**	–
	13	33	**167**	244	**180**	277
Adjustments in respect of prior years	**(13)**	–	**15**	(10)	**2**	(10)
Current tax	**–**	33	**182**	234	**182**	267
Deferred tax (credit)/charge for the year	**(630)**	366	**(43)**	(16)	**(673)**	350
Adjustments in respect of prior years	**22**	(2)	**(42)**	13	**(20)**	11
Recognition of advance corporation tax	**–**	(163)	**–**	–	**–**	(163)
Deferred tax charge resulting from reduction in tax rates	**–**	–	**(43)**	50	**(43)**	50
Deferred tax	**(608)**	201	**(128)**	47	**(736)**	248
Recognised in the income statement	**(608)**	234	**54**	281	**(554)**	515

* The 2017 figures have been restated for IFRS 15, an update to the provisional fair values of the ITP Aero acquisition and other adjustments. See note 18 for more details.

Deferred taxation assets and liabilities

	2018 £m	Restated * 2017 £m
At 1 January	**380**	1,072
Impact of adoption of IFRS 9	**2**	–
Amount credited/(charged) to income statement	**736**	(248)
Amount charged to other comprehensive income	**(2)**	(307)
Amount credited to cash flow hedge reserve	**5**	–
Amount credited to equity	**2**	3
On disposal/acquisition of businesses	**6**	(118)
Transferred to assets held for sale	**(4)**	–
Exchange differences	**5**	(22)
At 31 December	**1,130**	380
Deferred tax assets	**2,092**	1,451
Deferred tax liabilities	**(962)**	(1,071)
	1,130	380

Deferred tax assets include £998m (2017: £285m) relating to tax losses in the UK and £163m (2017: £163m) relating to advance corporation tax (ACT), as we conclude it is probable that the UK business will generate taxable profits and tax liabilities in the future against which we can utilise these losses and ACT. They do not time expire.

Most of the tax losses relate to our Civil Aerospace business in the UK which makes initial losses through the investment period of a programme and margin through its Services contracts. The programme lifecycles typically range between 30 and 55 years with more of our widebody engine programmes forecast at the upper end of that range. In the past few years there have been four new engines that have entered into service (Trent 1000 –TEN, Trent 7000 and Trent XWB 84 and 97), all of which are still in the investment stage.

The increase in the losses in 2018 is mainly due to the adoption of IFRS 15 (where the most significant impact of adopting the standard was in our Civil Aerospace business in the UK) together with a number of large one off exceptional profit impacting items relating to the Trent 1000 and Trent 900 programmes and the impact of the restructuring charge. Details of these are included in note 2. 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.

A recoverability assessment has been undertaken, taking account of deferred tax liabilities against which the reversal can be offset and using latest UK forecasts, which are mainly driven by the Group's Civil Aerospace business, to assess the level of future taxable profits.

The recoverability of UK deferred tax assets has been assessed in 2018 on the following basis:

- Using the most recent UK profit forecasts prepared by management, which are consistent with past experience and external sources on market conditions. These forecasts cover the next five years;
- Growth rates for the period beyond the forecasts reflecting the markets in which the UK businesses operate and external sources (c.2% to 4.4%);
- The long-term profit growth profile of certain of our more recently launched large engine programmes; and
- The term of our large engine programmes which is typically between 30 and 55 years from initial investment to retirement of the fleet, including the aftermarket revenues earned from airline customers. The assessment takes into account the UK tax laws effective from April 2017 that in broad terms restrict the offset of the carried forward tax losses to 50% of current year profits.

Based on this the Group concludes that it is probable that the UK business will generate taxable income and tax liabilities in the future to against which we can use the losses and ACT. Any future changes in tax law or the structure of the Group could have a significant effect on the use of losses and ACT, including the period over which they can be used. Based on current forecasts and using various scenarios the losses and ACT will be used in full within the next 20 to 30 years. Whilst there is significant judgement involved in the assessment the range is well within our expected programme lifecycles. This is an area the Board continuously reassesses.

6 Earnings per ordinary share

Basic earnings per 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.

	2018			2017 Restated *		
	Basic	**Potentially dilutive share options** [1]	**Diluted**	Basic	Potentially dilutive share options	Diluted
(Loss)/profit attributable to ordinary shareholders (£m)	**(2,401)**		**(2,401)**	3,382		3,382
Weighted average number of ordinary shares (millions)	**1,859**	**–**	**1,859**	1,834	6	1,840
EPS (pence)	**(129.15p)**	**–**	**(129.15p)**	184.41p	(0.61p)	183.80p

[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:

	2018		2017 Restated *	
	Pence	**£m**	Pence	£m
Underlying EPS / Underlying profit attributable to ordinary shareholders	**15.98**	**297**	2.34	43
Total underlying adjustments to profit before tax (note 2)	**(183.59)**	**(3,413)**	201.70	3,699
Related tax effects	**38.46**	**715**	(19.63)	(360)
EPS / (loss)/profit attributable to ordinary shareholders	**(129.15)**	**(2,401)**	184.41	3,382
Diluted underlying EPS	**15.98**		2.34	

***** The 2017 figures have been restated for IFRS 15, an update to the provisional fair values of the ITP Aero acquisition and other adjustments. See note 18 for more details.

7 Payments to shareholders in respect of the year

Payments to shareholders in respect of the period represent the value of C Shares to be issued in respect of the results for the period. Issues of C Shares were declared as follows:

	2018		2017	
	Pence per share	**£m**	Pence per share	£m
Interim (issued in January)	**4.60**	**86**	4.60	85
Final (issued in July)	**7.10**	**135**	7.10	131
	11.70	**221**	11.70	216

8 Intangible assets

	Goodwill £m	Certification costs £m	Development expenditure £m	Contractual aftermarket rights £m	Customer relationships £m	Software £m	Other £m	Total £m
Cost								
At 1 January 2018 restated *	**1,869**	**917**	**2,459**	**–**	**1,432**	**869**	**794**	**8,340**
Additions	**–**	**35**	**498**	**–**	**–**	**110**	**37**	**680**
Transferred to assets held for sale [1]	**(666)**	**–**	**(38)**	**–**	**(26)**	**(6)**	**(12)**	**(748)**
Disposal of L'Orange [2]	**(136)**	**–**	**(48)**	**–**	**(40)**	**–**	**(11)**	**(235)**
Disposals	**–**	**(4)**	**(1)**	**–**	**–**	**(16)**	**–**	**(21)**
Reclassifications	**5**	**–**	**–**	**–**	**–**	**3**	**(3)**	**5**
Exchange differences	**15**	**–**	**13**	**–**	**18**	**4**	**6**	**56**
At 31 December 2018	**1,087**	**948**	**2,883**	**–**	**1,384**	**964**	**811**	**8,077**
Accumulated amortisation and impairment								
At 1 January 2018 restated *	**324**	**339**	**1,045**	**–**	**256**	**488**	**323**	**2,775**
Charge for the year [3]	**–**	**35**	**114**	–	**90**	**103**	**39**	**381**
Impairment	**155**	**–**	**7**	–	**–**	**22**	**–**	**184**
Transferred to assets held for sale [1]	**(439)**	**–**	**(29)**	–	**(21)**	**(1)**	**(12)**	**(502)**
Disposal of L'Orange [2]	**–**	**–**	**(31)**	–	**(27)**	**–**	**(8)**	**(66)**
Disposals	**–**	**–**	**–**	–	**–**	**(8)**	**–**	**(8)**
Reclassifications	**5**	**(1)**	**–**	–	**–**	**1**	**–**	**5**
Exchange differences	**(3)**	**–**	**5**	–	**6**	**2**	**3**	**13**
At 31 December 2018	**42**	**373**	**1,111**	**–**	**304**	**607**	**345**	**2,782**
Net book value								
At 31 December 2018	**1,045**	**575**	**1,772**	**–**	**1,080**	**357**	**466**	**5,295**
At 31 December 2017 restated *	1,545	578	1,414	–	1,176	381	471	5,565
At 31 December 2017 as previously reported	1,545	1,117	1,450	873	1,247	380	451	7,063

* The 2017 figures have been restated for IFRS 15, an update to the provisional fair values of the ITP Aero acquisition and other adjustments. See note 18 for more details.
[1] The Commercial Marine business was classified as a 'held for sale' disposal group on 30 June 2018 (note 16).
[2] The disposal of the L'Orange business to Woodward Inc. was completed on 1 June 2018 (note 16).
[3] Charged to cost of sales except development costs, which are charged to research and development costs.

Goodwill has been tested for impairment during 2018 on the following basis:

- With the exception of the Commercial Marine business (see below), 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 generally cover the next five years. Growth rates for the period not covered by the forecasts are based on a range of growth rates (1.8-2.5%) 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:

Commercial Marine
On 6 July 2018, the Group announced the sale of Commercial Marine to KONGSBERG for a cash consideration of approximately £425m. The disposal is expected to complete in 2019 and the business meets the criteria of IFRS 5 *Non-current Assets Held for Sale and Discontinued Operations* that where the carrying value of a 'disposal group' is expected to be recovered through a sale transaction, the disposal group should be treated as 'held for sale', with assets and liabilities presented separately on the balance sheet measured at the lower of carrying value or fair value less costs to sell. Following reclassification, the non-current assets of Commercial Marine are no longer amortised.

As a result of the classification of the Commercial Marine business as a disposal group, its carrying value was assessed against the anticipated proceeds and the disposal costs. An impairment charge of £155m for the related goodwill (with an additional £5m impairment charge to Property, Plant and Equipment) has been recognised in the income statement and the remaining net balance of £227m transferred to assets held for sale.

Other intangible assets
Other intangible assets 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 7-13% (2017: 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.

On the basis of impairment reviews and tests performed, no impairments are required. 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.

9 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 2018 restated *	**1,842**	**5,022**	**734**	**773**	**8,371**
Additions	**54**	**273**	**251**	**396**	**974**
Transferred to assets held for sale [1]	**(91)**	**(138)**	**–**	**(30)**	**(259)**
Disposals of L'Orange [2]	**(23)**	**(72)**	**–**	**(4)**	**(99)**
Disposals/write-offs	**(29)**	**(140)**	**(19)**	**–**	**(188)**
Reclassifications	**140**	**287**	**(3)**	**(424)**	**–**
Exchange differences	**23**	**64**	**4**	**11**	**102**
At 31 December 2018	**1,916**	**5,296**	**967**	**722**	**8,901**
Accumulated amortisation					
At 1 January 2018 restated *	**554**	**2,984**	**173**	**2**	**3,713**
Charge for the year	**67**	**376**	**80**	**–**	**523**
Impairment	**–**	**2**	**–**	**5**	**7**
Transferred to assets held for sale [1]	**(26)**	**(96)**	**–**	**–**	**(122)**
Disposals of L'Orange [2]	**(4)**	**(34)**	**–**	**–**	**(38)**
Disposals/write-offs	**(19)**	**(123)**	**(9)**	**–**	**(151)**
Exchange differences	**7**	**33**	**–**	**–**	**40**
At 31 December 2018	**579**	**3,142**	**244**	**7**	**3,972**
Net book value					
At 31 December 2018	**1,337**	**2,154**	**723**	**715**	**4,929**
At 31 December 2017 restated *	1,288	2,038	561	771	4,658
At 31 December 2017 as previously reported	1,288	2,051	514	771	4,624

* The 2017 figures have been restated for IFRS 15, an update to the provisional fair values of the ITP Aero acquisition and other adjustments. See note 18 for more details.
[1] The Commercial Marine business was classified as a 'held for sale' disposal group on 30 June 2018 (note 16).
[2] The disposal of the L'Orange business to Woodward Inc. was completed on 1 June 2018 (note 16).

10 Trade receivables and other assets

	2018 £m	Restated * 2017 £m
Trade receivables [1]	**2,680**	2,709
Amounts owed by joint ventures and associates [1]	**229**	270
Costs to obtain contracts with customers [2]	**42**	51
Other receivables	**1,146**	1,115
Prepayments	**593**	208
	4,690	4,353
Contract assets [3]	**1,403**	1,290
Participation fee contract assets [3]	**654**	655
Total contract assets	**2,057**	1,945
	6,747	6,298

* The 2017 figures have been restated for IFRS 15, an update to the provisional fair values of the ITP Aero acquisition and other adjustments. See note 18 for more details.
[1] Includes **£146m** of trade receivables held to collect or sell and **nil** receivables from joint ventures and associates held to collect or sell.
[2] These are amortised over the term of the related contract, resulting in amortisation of **£13m** (2017: £6m) in the year. There were no impairment losses.
[3] Contract assets include **£1,097m** (2017: £1,027m) of Civil Aerospace LTSA assets where the increase is primarily due to revenue being recognised based on stage of completion of LTSAs, measured on a cost-to-cost basis, that is circa £180m greater than the revenue invoiced in the year on these customer contracts i.e. those with debit balances. Catch-up adjustments of £111m in Civil Aerospace have reduced the contract asset primarily due to revised measurement of progress towards completing performance obligations as cost estimates have increased (an offsetting £27m catch-up adjustment relating to the RRSA partner share is included in prepayments). Similar timing differences between revenue recognised on a stage of completion basis and invoices raised have occurred to a lesser extent in other Sectors. No impairment losses on contract assets have arisen during the year. Participation fee contract assets are flat year-on-year with additional amounts paid during 2018 in being offset by amortisation.

11 Trade payables and other liabilities

	Current		Non-current		Total	
	2018 £m	Restated * 2017 £m	**2018 £m**	Restated * 2017 £m	**2018 £m**	Restated * 2017 £m
Trade payables	**2,520**	2,014	**–**	10	**2,520**	2,024
Amounts owed to joint ventures and associates	**635**	43	**18**	7	**653**	50
Accruals	**1,673**	1,452	**109**	94	**1,782**	1,546
Deferred receipts from RRSA workshare partners	**9**	73	**520**	482	**529**	555
Government grants [1]	**14**	20	**85**	82	**99**	102
Other taxation and social security	**125**	126	**–**	–	**125**	126
Other payables [2]	**3,316**	3,157	**1,208**	1,563	**4,524**	4,720
	8,292	6,885	**1,940**	2,238	**10,232**	9,123
Contract liabilities [3]	**3,794**	4,104	**5,336**	3,607	**9,130**	7,711
	12,086	10,989	**7,276**	5,845	**19,362**	16,834

***** The 2017 figures have been restated for IFRS 15, an update to the provisional fair values of the ITP Aero acquisition and other adjustments. See note 18 for more details.

[1] During the year **£8m** (2017: £7m) of government grants were released to the income statement.

[2] Other payables include **£378m** (2017: £378m) for financial penalties from agreements with investigating bodies and **£245m** (2017: £648m) for deferred consideration in relation to the acquisition of ITP Aero.

[3] During the year **£2,823m** (2017: £2,570m) of the opening contract liability was recognised as revenue. Contract liabilities have increased by £1,419m with the main reasons being (i) an increase of £1,014m in Civil Aerospace LTSA liabilities to **£5,584m** (2017: £4,570m) including a £192m catch-up adjustment as progress towards completing performance obligations have been re-measured with cost estimates updated to reflect technical issues across various engine programmes including rectifying manufacturing quality issues on Trent 900 turbine blades and the latest information around future aircraft utilisation patterns and their resultant effect on shop visit costs. Invoices raised in Civil Aerospace during 2018 for LTSA services as engines were utilised by customers were greater than revenue recognised as costs were incurred; (ii) an increase in OE deposits mainly on Civil Aerospace and Power Systems programmes; (iii) an increase of £190m in Defence with a greater value of invoices raised in the year than recognised as revenue and favourable catch-up adjustments of circa £40m; (iv) a £40m reduction in ITP Aero including a favourable catch-up adjustment on its external customer contracts of around £20m; and (vi) a reclassification of £148m of Commercial Marine balances now as held for sale.

12 Financial assets and liabilities

Other financial assets and liabilities comprise:

	Derivatives							
	Foreign exchange contracts £m	**Commodity contracts £m**	**Interest rate contracts [1] £m**	**Total derivatives £m**	**Financial RRSAs £m**	**Other £m**	**C Shares £m**	**Total £m**
2018								
Non-current assets	**47**	**4**	**292**	**343**	–	–	–	**343**
Current assets	**16**	**2**	**4**	**22**	–	–	–	**22**
Current liabilities	**(523)**	**(15)**	**–**	**(538)**	**(52)**	**(28)**	**(29)**	**(647)**
Non-current liabilities	**(3,304)**	**(25)**	**(4)**	**(3,333)**	**(175)**	**(34)**	**–**	**(3,542)**
	(3,764)	**(34)**	**292**	**(3,506)**	**(227)**	**(62)**	**(29)**	**(3,824)**
2017 restated *								
Non-current assets	362	16	232	610	–	–	–	610
Current assets	27	9	–	36	–	–	–	36
Current liabilities	(493)	(10)	–	(503)	(50)	(20)	(28)	(601)
Non-current liabilities	(2,208)	(14)	(5)	(2,227)	(197)	(37)	–	(2,461)
	(2,312)	1	227	(2,084)	(247)	(57)	(28)	(2,416)

***** The 2017 figures have been restated for IFRS 15, an update to the provisional fair values of the ITP Aero acquisition and other adjustments. See note 18 for more details.

[1] Includes the foreign exchange impact of cross-currency interest rate swaps.

Derivative financial instruments	2018				2017
	Foreign exchange £m	**Commodity £m**	**Interest rate £m**	**Total £m**	Total £m
At 1 January	**(2,312)**	**1**	**227**	**(2,084)**	(5,249)
Acquisition of business	**–**	**–**	**–**	**–**	9
Movements in fair value hedges	**–**	**–**	**66**	**66**	(131)
Movements in cash flow hedges	**(14)**	**(9)**	**(1)**	**(24)**	–
Movements in other derivative contracts [1]	**(2,122)**	**(22)**	**–**	**(2,144)**	2,648
Contracts settled	**684**	**(4)**	**–**	**680**	639
At 31 December	**(3,764)**	**(34)**	**292**	**(3,506)**	(2,084)

[1] Included in financing.

Financial risk and revenue sharing arrangements (RRSAs) and other financial liabilities	**Financial RRSAs**		**Other**	
	2018 £m	Restated * 2017 £m	**2018 £m**	Restated * 2017 £m
At 1 January as previously reported	**(247)**	(101)	**(57)**	(15)
Impact of adopting IFRS 15 [1]	**–**	–	**–**	(42)
At 1 January as restated	**(247)**	(101)	**(57)**	(57)
Exchange adjustments included in OCI	**(3)**	(14)	**(1)**	–
Acquisition of business	**–**	(161)	**–**	–
Additions	**(3)**	–	**(25)**	(3)
Financing charge [2]	**(8)**	(5)	**(1)**	(1)
Excluded from underlying profit:				
Changes in forecast payments [2]	**(2)**	2	**–**	–
Exchange adjustments [2]	**–**	10	**–**	1
Cash paid	**36**	22	**22**	–
Other	**–**	–	**–**	3
At 31 December	**(227)**	(247)	**(62)**	(57)

* The 2017 figures have been restated for IFRS 15, an update to the provisional fair values of the ITP Aero acquisition and other adjustments. See note 18 for more details.
[1] IFRS 15 adoption results in a change in accounting treatment for parts sold with an option to repurchase and also future obligations to airframers arising from sale of our OE on the airframes.
[2] Included in net financing.

Fair values of financial instruments equate to book values with the following exceptions:

	2018		2017	
	Book value £m	**Fair value £m**	Book value £m	Fair value £m
Borrowings	**(4,662)**	**(4,521)**	(3,488)	(3,518)
Financial RRSAs	**(227)**	**(235)**	(247)	(250)

Fair values

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.

- Unlisted non-current investments primarily comprise unconsolidated companies where fair value approximates to the book value.
- The fair values of held to collect trade receivables and similar items, trade payables and similar items, other non-derivative financial assets and liabilities, short-term investments and cash and cash equivalents 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.
- Fair values of derivative financial assets and liabilities and trade receivables held to collect or sell 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*).
- 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 using quoted prices (Level 1 as defined by IFRS 13) or by discounting contractual future cash flows (Level 2 as defined by IFRS 13).
- The fair value of RRSAs and other 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).

Borrowings

During the year, the Group replaced the £1,500m and £500m committed bank borrowing facilities with a new £2,500m facility with a maturity date of 2023. This facility was undrawn at the period end. Also during 2018 the Group issued €1,100m of bond notes of which €550m mature in 2024 and €550m in 2028.

13 Pensions and other post-retirement benefits

Movements in the net post-retirement position recognised in the balance sheet were as follows:

	UK schemes £m	Overseas schemes £m	Total £m
At 1 January 2018	**2,108**	**(1,370)**	**738**
Exchange adjustments	**–**	**(32)**	**(32)**
Current service cost and administrative expenses	**(183)**	**(58)**	**(241)**
Past service cost in respect of equalisation [1]	**(121)**	**–**	**(121)**
Other past service credit [2]	**9**	**1**	**10**
Financing recognised in the income statement	**55**	**(32)**	**23**
Contributions by employer	**117**	**64**	**181**
Actuarial gains/(losses) recognised in OCI	**646**	**139**	**785**
Returns on plan assets excluding financing recognised in OCI	**(705)**	**(53)**	**(758)**
Disposal of business	**–**	**31**	**31**
Other	**–**	**(2)**	**(2)**
At 31 December 2018	**1,926**	**(1,312)**	**614**
Analysed as:			
Post-retirement scheme surpluses - included in non-current assets	**1,926**	**18**	**1,944**
Post-retirement scheme deficits - included in non-current liabilities	**–**	**(1,303)**	**(1,303)**
Included in liabilities associated with assets held for sale	**–**	**(27)**	**(27)**
	1,926	**(1,312)**	**614**

[1] In the UK, past-service costs of £121m have been recognised relating to the estimated cost of equalising benefits earned after May 1990 between men and women. The Rolls-Royce UK Pension Fund has to provide Guaranteed Minimum Pensions (GMPs) which, as a result of statutory rules, have been calculated differently for men and women. Although equal treatment in pension provision for males and females has been required since 1990, there has been uncertainty on whether and how pension schemes are required to equalise GMPs. A High Court judgement on the Lloyds Banking Group hearing was published on 26 October 2018. The judgement confirmed that GMPs earned from 1990 must be equalised and highlighted an acceptable range of methods. The estimated cost of this equalisation is £97m. In addition, a cost of £24m has been recognised in relation to obligations to equalise certain other post 1990 benefits between men and women. The total cost of £121m represents the Directors' best estimate of the cost, based on actuarial advice. However, the final cost will differ from this amount when the actual method of equalisation is agreed with the Trustee and subsequently implemented.

[2] In addition, a past-service credit of £9m has arisen related to the restructuring activities. This credit has been offset against the restructuring costs. All amounts have been excluded from the underlying results.

14 Contingent liabilities

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 material financial loss, but cannot anticipate all the possible actions that may be taken or their potential consequences.

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$2.3bn** (2017: US$3.3bn) (on a discounted basis) to provide facilities to enable customers to purchase aircraft (of which approximately US$630m could be called during 2019). 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.

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.

	2018		2017	
	£m	***$m***	£m	*$m*
Gross commitments	**93**	***119***	145	*196*
Value of security [1]	**(24)**	***(30)***	(41)	*(55)*
Indemnities	**(19)**	***(24)***	(51)	*(69)*
Net commitments	**50**	***65***	53	*72*
Net commitments with security reduced by 20% [2]	**60**	***77***	64	*86*
[1] Security includes unrestricted cash collateral of:	**4**	***6***	22	*29*

[2] Although sensitivity calculations are complex, the reduction of the relevant security by 20% illustrates the sensitivity to changes in this assumption.

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.

15 Related party transactions

Transactions with related parties are shown on page 163 of the 2018 Annual Report. Significant transactions in the current financial period are as follows:

	2018 **£m**	2017 £m
Sales of goods and services to joint ventures and associates	**3,237**	2,469
Purchases of goods and services from joint ventures and associates	**(2,957)**	(2,224)

Included in sales of goods and services to joint ventures and associates are sales of spare engines amounting to **£563m** (2017: £418m).

Profit recognised in the year on such sales amounted to **£157m** (2017: £75m), 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 **£132m** (2017: £67m).

16 Acquisition and disposals

Acquisitions – ITP Aero

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 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%.

In 2017, and as permitted by IFRS 3 *Business Combinations*, the fair value of acquired identifiable assets and liabilities was presented on a provisional basis. This has been finalised during 2018 and is set out below.

Fair values are determined on the base of an assessment performed by an independent professional expert, using measurement techniques and estimation of future cash flows are used to assess value of intangible assets at the date of acquisition. The total fair value of acquired identifiable assets and liabilities is £1,637m and a significant part of value was allocated to intangible assets. The valuation indicated a bargain purchase of £303m, which has been recognised in the income statement. Changes to the provisional balances presented at 31 December 2017 reflects additional information obtained during 2018 about facts which existed at the date of acquisition, since the acquisition occurred close to the year end. The adjustments mainly relate to customer relationships and the restatement of balances for IFRS 15.

Recognised amounts of identifiable assets acquired and liabilities assumed:

	Provisional £m	PPA adjustments £m	**Final** **£m**
Intangible assets	1,417	(288)	**1,129**
Property, plant and equipment	268	(14)	**254**
Deferred tax assets	148	(148)	**–**
Inventory	316	(84)	**232**
Trade receivables and other assets	497	(73)	**424**
Current tax	2	–	**2**
Cash and cash equivalents	263	–	**263**
Trade payables and other liabilities	(625)	309	**(316)**
Borrowings	(34)	–	**(34)**
Other financial assets and liabilities	(148)	(4)	**(152)**
Deferred tax liability	(386)	268	**(118)**
Provisions	(68)	21	**(47)**
Total identifiable assets and liabilities	1,650	(13)	**1,637**
Total consideration	(1,405)	71	**(1,334)**
Bargain purchase gain arising	245	58	**303**
Gain from revaluation of existing shares	553	(71)	**482**
Total gain arising on the acquisition of ITP Aero recognised in the income statement	798	(13)	**785**
Consideration satisfied by:			
Deferred consideration to be paid in cash or shares	648	–	**648**
Existing shareholding	757	(71)	**686**
	1,405	(71)	**1,334**
Identifiable intangible assets comprise:			
Technology, patents and licences	245	(111)	**134**
Customer relationships	833	62	**895**
Trademark	44	17	**61**
In-process development	91	(63)	**28**
Other	204	(193)	**11**
	1,417	(288)	**1,129**

Disposals

L'Orange

On 1 June 2018, the Group sold its L'Orange business, part of Power Systems, to Woodward Inc. for €673m.

	2018 £m
Proceeds	
Cash consideration [1]	589
Cash and cash equivalents disposed	(3)
Net cash consideration	586
Disposal costs paid	(13)
Cash inflow per cash flow statement	573
Assets and liabilities disposed	
Intangible assets	169
Property, plant and equipment	61
Investments	3
Deferred tax assets	6
Inventory	40
Deposits (payments received on account)	(1)
Trade receivables and other assets	27
Trade payables and other liabilities	(21)
Current tax	(1)
Provisions for liabilities and charges	(6)
Deferred tax liabilities	(12)
Post-retirement scheme deficits	(31)
Net assets disposed	234
Profit on disposal before disposal costs and continuing obligations	352
Cumulative currency translation gain	19
Profit on disposal of the business	371
Disposal costs	(13)
Non-underlying profit before tax	358

[1] Under the sale agreement, the cash consideration may be adjusted by up to +/-€44m, based on L'Orange aftermarket sales over the five-year period to 31 May 2023. This was reassessed at 31 December 2018, no significant adjustments were identified.

Commercial Marine – held for sale

On 6 July 2018, the Group announced the sale of Commercial Marine to KONGSBERG for a cash consideration of approximately £425m. The disposal is expected to complete in 2019.

The transaction meets the criteria of IFRS 5 *Non-current Assets Held for Sale and Discontinued Operations* that where the carrying value of a 'disposal group' is expected to be recovered through a sale transaction, the disposal group should be treated as 'held for sale', with assets and liabilities presented separately on the balance sheet measured at the lower of carrying value or fair value less costs to sell.

The table below summarises the categories of assets and liabilities classified as held for sale:

	2018 £m
Assets and liabilities held for sale	
Intangible assets	246
Property, plant and equipment [1]	140
Deferred tax assets	4
Inventory [1]	191
Trade receivables and other assets	166
Current tax assets	3
Assets held for sale	750
Trade payables and other liabilities	(313)
Current tax liabilities	(3)
Provisions for liabilities and charges	(33)
Post-retirement scheme deficits	(27)
Liabilities associated with assets held for sale	(376)
Net assets held for sale	374

[1] £7m of assets related to the Steering Gear business were held for sale at the end of 2017. £3m of property, plant and equipment and £4m of inventory held for sale in 2017 are due to be sold in 2019 as part of the proposed sale to KONGSBERG.

17 Derivation of summary funds flow statement

The table below shows the derivation of the summary funds flow statement (lines marked *) as stated on page 9 and from the consolidated cash flow statement on page 27.

		2018		2017		
		£m	**£m**	£m	£m	**Source**
*	**Underlying profit before tax (PBT) – page 25**		**466**		199	
	Depreciation and impairment of PPE	**521**		450		Cash flow statement
	Amortisation and impairment of intangible assets	**565**		343		Cash flow statement
	Impairment of goodwill	**(155)**		(12)		Reversal of underlying adjustment
	Acquisition accounting	**(175)**		(129)		Reversal of underlying adjustment
*	**Depreciation and amortisation**		**756**		652	
	Increase in inventories	**(616)**		(194)		Cash flow statement
	Movement in receivables/payables	**1,129**		226		Cash flow statement
	Movement in contract assets and liabilities	**363**		(50)		Cash flow statement
	Realised derivatives in financing	**(465)**		(195)		Underlying adjustment (note 2)
	Revaluation of trading assets (excluding exceptional items)	**170**		(6)		Reversal of underlying adjustment
*	**Movement on net working capital**		**581**		(219)	
*	**Underlying Civil Aerospace LTSA contract balances**		**944**		1,379	
*	Additions of intangible assets	**(680)**		(647)		Cash flow statement
*	Purchases of PPE	**(905)**		(730)		Cash flow statement
	Expenditure on PPE and intangible assets		**(1,585)**		(1,377)	
	Realised losses on hedging instruments	**219**		453		Reversal of underlying adjustment
	Foreign exchange in contract accounting	**(265)**		(153)		
	Net unrealised fair value changes to derivatives	**(1)**		24		Reversal of underlying adjustment
	Exceptional restructuring, excluding cash spent of £70m	**(256)**		(104)		Reversal of underlying adjustment
	Underlying financing	**150**		107		Reversal of charge in underlying PBT
	New finance leases in year	**(97)**		(57)		Cash flow statement
	Impact of joint venture trading	**101**		70		JV dividends less share of results – CFS
	Increase/(decrease) in provisions	**1,003**		(1)		Cash flow statement
	Trent 900 exceptional items in payables	**134**		–		
	Trent 1000 exceptional charges at expected rates	**(790)**		–		Reversal of underlying adjustment
	Trent 900 exceptional items at expected rates	**(186)**		–		Reversal of underlying adjustment
	Trent 1000 and Trent 900 adjustments to spot rates	**(147)**		–		Reversal of underlying adjustment
	Cash flows on other financial assets and liabilities	**(267)**		(469)		Cash flow statement
	Share based payments	**35**		34		Cash flow statement
	Disposal of intangible assets and PPE	**67**		21		Cash flow statement
	Investments in joint ventures and associates	**(13)**		(47)		Cash flow statement
	Net interest received and paid	**(70)**		(53)		Cash flow statement
	Transactions in ordinary shares	**–**		(3)		Cash flow statement
	Other movements	**(22)**		(8)		
*	**Other**		**(405)**		(186)	
*	**Trading cash flow**		**757**		448	
	Net defined benefit plans – underlying operating charge	**240**		240		Cash flow statement
	Cash funding of defined benefit plans	**(181)**		(249)		Cash flow statement
*	**Contributions to defined benefit schemes in excess of underlying PBT charge**		**59**		(9)	
*	**Tax**		(248)		(180)	Cash flow statement
*	**Free cash flow**		**568**		259	
*	**Shareholder payments**		**(219)**		(214)	C Shares and NCI dividends – CFS
*	**Acquisition of ITP Aero**		**–**		229	Cash flow statement
	Disposal of L'Orange		**573**		–	
	Exceptional restructuring costs		**(70)**		–	
*	**DPA payments**		**–**		(286)	Cash flow statement
	Other		**10**		(9)	
*	**Foreign exchange**		**54**		(59)	Cash flow statement
*	**Change in net funds**		**916**		(80)	

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. It excludes 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.

	2018		2017		
	£m	£m	£m	£m	Source
Reported operating profit		(1,161)		366	
Realised losses on hedging instruments	(219)		(453)		Reported to underlying adjustment (note 2)
Net unrealised fair value changes to derivatives	1		(24)		Reported to underlying adjustment (note 2)
Foreign exchange on contract accounting	265		153		Reported to underlying adjustment (note 2)
Revaluation of trading assets and liabilities	(23)		6		Reported to underlying adjustment (note 2)
Trent 900 and Trent 1000 exceptional charge	976		–		
Effect of acquisition accounting	175		129		Reported to underlying adjustment (note 2)
UK pension equalisation	121		–		Reported to underlying adjustment (note 2)
Impairment of goodwill	155		24		Reported to underlying adjustment (note 2)
Exceptional restructuring	317		104		Reported to underlying adjustment (note 2)
Other	9		1		Reported to underlying adjustment (note 2)
Adjustments to reported operating profit		1,777		(60)	
Underlying profit before financing		616		306	
Underlying financing		(150)		(107)	Underlying income statement (note 2)
Underlying profit before tax		466		199	

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 on page 27.

	2018		2017	
	£m	£m	£m	£m
Change in cash and cash equivalents		**1,953**		231
Returns to shareholders		**219**		214
Net cash flow from changes in borrowings and finance leases		**(1,091)**		(200)
Increase in short-term investments		**3**		–
Acquisition of ITP Aero	–		(263)	
Disposal of L'Orange	(573)		–	
Other acquisitions and disposals	(10)		(1)	
Changes in group structure		**(583)**		(264)
Payments of financial penalties from agreements with investigating bodies		**–**		286
Exceptional restructuring expenditure		**70**		–
Other		**(3)**		(8)
Free cash flow		**568**		259
Exclude cash outflow of ITP Aero				14
Free cash flow excluding ITP Aero				273

18 Impact of new accounting standards

IFRS 15 *Revenue from Contracts with Customers* and IFRS 9 *Financial Instruments*

The restatements of the primary statements arising from adopting IFRS 15, IFRS 9 and other adjustments are summarised below.

Condensed consolidated income statement

For the year ended 31 December 2017

	Previous accounting	IFRS 15 impact	ITP Aero adjustments [6]	Other adjustments [1]	**IFRS 15 basis 31 December 2017**
	£m	£m	£m	£m	**£m**
Revenue	**16,307**	(1,547)	–	(13)	**14,747**
Cost of sales	**(13,134)**	687	–	122	**(12,325)**
Gross profit [2]	**3,173**	(860)	–	109	**2,422**
Commercial and administrative costs	**(1,222)**	–	–	–	**(1,222)**
Research and development costs [3]	**(795)**	(48)	–	–	**(843)**
Share of results of joint ventures and associates	**131**	–	–	(122)	**9**
Operating profit	**1,287**	(908)	–	(13)	**366**
Gains arising on the acquisition of ITP Aero	**798**	–	(13)	–	**785**
Profit before financing and taxation	**2,085**	(908)	(13)	(13)	**1,151**
Financing income	**2,973**	(58)	–	(4)	**2,911**
Financing costs	**(161)**	(8)	–	5	**(164)**
Net financing [4]	**2,812**	(66)	–	1	**2,747**
Profit before taxation	**4,897**	(974)	(13)	(12)	**3,898**
Taxation [5]	**(689)**	172	–	2	**(515)**
Profit for the year	**4,208**	**(802)**	**(13)**	**(10)**	**3,383**
Attributable to:					
Ordinary shareholders	**4,207**	(802)	(13)	(10)	**3,382**
Non-controlling interests	**1**	–	–	–	**1**
Profit for the year	**4,208**	**(802)**	**(13)**	**(10)**	**3,383**
Earnings per ordinary share attributable to shareholders					
Basic	**229.40p**	(43.73p)	(0.71p)	(0.55p)	**184.41p**
Diluted	**228.64p**	(43.59p)	(0.71p)	(0.54p)	**183.80p**

[1] The other adjustments impacting profit before taxation for the year arise from the revised calculation of the foreign exchange rate applied to non-monetary assets and liabilities of £(4)m and the revised unwind of discounting of non-current liabilities of £(8)m. Deferred profit on sales to joint ventures was previously recognised in cost of sales but is now recognised within the share of results of joint ventures and associates.

[2] The IFRS 15 impact is predominantly due to derecognition of contractual aftermarket rights, de-linkage of OE from aftermarket contracts and a change to recognise revenue on long-term service agreements as costs are incurred rather than when the engines are operated.

[3] Reclassification of the recognition of contributions received from the Group's suppliers under Risk and Revenue Sharing Agreements (RRSAs) to cost of sales.

[4] Revised phasing of foreign exchange in line with revised phasing of long-term service agreement revenues and unwind of discounting of future guarantee payments due to customers.

[5] Consequential change from the restated reported profit.

[6] Changes to the provisional balances presented at 31 December 2017 reflect additional information obtained during 2018 about facts which existed at the date of acquisition, since the acquisition occurred close to the year end, together with the impact of IFRS 15 transition in ITP Aero.

Condensed consolidated statement of comprehensive income

For the year ended 31 December 2017

	Previous accounting	IFRS 15 impact	ITP Aero adjustments	Other adjustments	**IFRS 15 Basis 31 December 2017**
	£m	£m	£m	£m	**£m**
Profit for the year	**4,208**	(802)	(13)	(10)	**3,383**
Other comprehensive income (OCI)					
Actuarial movements in post-retirement schemes	**735**	–	–	–	**735**
Share of OCI of joint ventures and associates	**(1)**	–	–	–	**(1)**
Related tax movements	**(307)**	–	–	–	**(307)**
Items that will not be reclassified to profit or loss	**427**	–	–	–	**427**
Foreign exchange translation differences on foreign operations	**(142)**	5	3	1	**(133)**
Share of OCI of joint ventures and associates	**(5)**	–	–	–	**(5)**
Related tax movements	**1**	–	–	–	**1**
Items that may be reclassified to profit or loss	**(146)**	5	3	1	**(137)**
Total other comprehensive income	**281**	5	3	1	**290**
Total comprehensive income for the year	**4,489**	(797)	(10)	(9)	**3,673**
Attributable to:					
Ordinary shareholders	**4,488**	(797)	(10)	(9)	**3,672**
Non-controlling interests	**1**	–	–	–	**1**
Total comprehensive expense for the year	**4,489**	(797)	(10)	**(9)**	**3,673**

Consolidated balance sheet

At 31 December 2017 and 1 January 2018

	Previous accounting £m	IFRS 15 impact [1] £m	ITP Aero adjustments [2] £m	Other adjustments £m	IFRS 15 basis 31 December 2017 £m	IFRS 9 impact [3] £m	1 January 2018 £m
ASSETS							
Intangible assets	**7,063**	(1,221)	(291)	14	**5,565**	–	**5,565**
Property, plant and equipment	**4,624**	–	(13)	47	**4,658**	–	**4,658**
Investments – joint ventures and associates	**688**	–	–	(313)	**375**	–	**375**
Investments – other	**26**	–	–	–	**26**	–	**26**
Other financial assets	**610**	–	–	–	**610**	–	**610**
Deferred tax assets	**271**	608	(148)	720	**1,451**	2	**1,453**
Post-retirement scheme surpluses	**2,125**	–	–	–	**2,125**	–	**2,125**
Non-current assets	**15,407**	(613)	(452)	468	**14,810**	2	**14,812**
Inventories	**3,660**	64	(84)	163	**3,803**	–	**3,803**
Trade receivables and other assets	**7,919**	(1,587)	(74)	(1,905)	**4,353**	(12)	**4,341**
Contract assets	**–**	–	–	1,945	**1,945**	(5)	**1,940**
Taxation recoverable	**17**	–	–	–	**17**	–	**17**
Other financial assets	**36**	–	–	–	**36**	–	**36**
Short-term investments	**3**	–	–	–	**3**	–	**3**
Cash and cash equivalents	**2,953**	–	–	–	**2,953**	–	**2,953**
Current assets	**14,588**	(1,523)	(158)	203	**13,110**	(17)	**13,093**
Assets held for sale	**7**	–	–	–	**7**	–	**7**
TOTAL ASSETS	**30,002**	(2,136)	(610)	671	**27,927**	(15)	**27,912**
LIABILITIES							
Borrowings	**(82)**	–	–	–	**(82)**	–	**(82)**
Other financial liabilities	**(581)**	(20)	–	–	**(601)**	–	**(601)**
Trade payables and other liabilities	**(9,527)**	(1,762)	300	4,104	**(6,885)**	–	**(6,885)**
Contract liabilities	**–**	–	–	(4,104)	**(4,104)**	–	**(4,104)**
Current tax liabilities	**(209)**	–	–	–	**(209)**	–	**(209)**
Provisions for liabilities and charges	**(526)**	36	7	(67)	**(550)**	–	**(550)**
Current liabilities	**(10,925)**	(1,746)	307	(67)	**(12,431)**	–	**(12,431)**
Borrowings	**(3,406)**	–	–	–	**(3,406)**	–	**(3,406)**
Other financial liabilities	**(2,435)**	(23)	(3)	–	**(2,461)**	–	**(2,461)**
Trade payables and other liabilities	**(4,178)**	(1,901)	14	3,827	**(2,238)**	–	**(2,238)**
Contract liabilities	**–**	–	–	(3,607)	**(3,607)**	–	**(3,607)**
Deferred tax liabilities	**(1,144)**	545	268	(740)	**(1,071)**	–	**(1,071)**
Provisions for liabilities and charges	**(357)**	–	14	(50)	**(393)**	–	**(393)**
Post-retirement scheme deficits	**(1,387)**	–	–	–	**(1,387)**	–	**(1,387)**
Non-current liabilities	**(12,907)**	(1,379)	293	(570)	**(14,563)**	–	**(14,563)**
TOTAL LIABILITIES	**(23,832)**	(3,125)	600	(637)	**(26,994)**	–	**(26,994)**
NET ASSETS	**6,170**	(5,261)	(10)	34	**933**	(15)	**918**

[1] The main balance sheet impacts of IFRS 15 have been as follows:

Intangible assets: De-recognition of Contractual Aftermarket Rights (CARs) and reclassification of participation fees as contract assets as IFRS 15 provides additional guidance on the treatment of payments to customers.

Deferred tax: Consequential change from the restated cumulative profits.

Inventories: The cost of parts sold where an option to repurchase is retained e.g. within a larger manufactured assembly. The customer has not obtained control based on the IFRS 15 definition, so the asset has been added to the inventory balance.

Trade receivables/payables and other assets/liabilities: There are a number of factors: (a) Revised revenue allocation between years (deferred income) as a result of de-linkage of OE from aftermarket contracts and a change to recognise revenue on long-term service agreements as costs are incurred rather than as engines are operated, (b) Recognition of an additional asset where costs are incurred to obtain a contract that will subsequently be amortised as a reduction against the associated revenue as goods and services are delivered; and (c) Reclassifications of: participation fees from intangible assets to contract assets; RRSA payments made ahead of parts usage as a prepayment from trade payables and other liabilities; and amounts billed in advance have increased the trade receivables asset (amount billed) and the contract liability within trade payables and other liabilities to better reflect the contractual position.

Other financial liabilities: Parts sold with an option to repurchase and future obligations to airframers arising from sale of our OE on their airframes.

Provisions: As a result of the more refined guidance on contract liabilities in IFRS 15 we have reclassified a balance from provisions.

Net assets: All of the adjustments to net assets are included within retained earnings in equity, with the exception of £13m (2016: £22m) which arises from the consolidation of overseas entities and is included in the translation reserve.

[2] Changes to the provisional ITP Aero balances presented at 31 December 2017 reflecting additional information obtained during 2018 about facts which existed at the date of acquisition, since the acquisition occurred close to the year end, together with the impact of IFRS 15. Balances reflect the exchange rate at the balance sheet date, rather than the date of acquisition. See note 16.

[3] Re-assessment of recoverability of financial assets using IFRS 9 principles has resulted in a reduction in net assets of £15m.

Consolidated balance sheet

At 31 December 2016

	Previous accounting £m	IFRS 15 impact[1] £m	Other adjustments £m	**IFRS 15 basis 31 December 2016 £m**
ASSETS				
Intangible assets	**5,080**	(985)	21	**4,116**
Property, plant and equipment	**4,114**	–	20	**4,134**
Investments – joint ventures and associates	**844**	–	(289)	**555**
Investments – other	**38**	–	–	**38**
Other financial assets	**382**	–	–	**382**
Deferred tax assets	**876**	465	444	**1,785**
Post-retirement scheme surpluses	**1,346**	–	–	**1,346**
Non-current assets	**12,680**	(520)	196	**12,356**
Inventories	**3,086**	89	178	**3,353**
Trade receivables and other assets	**6,956**	(1,405)	(1,868)	**3,683**
Contract assets	**–**	–	1,875	**1,875**
Taxation recoverable	**32**	–	–	**32**
Other financial assets	**5**	–	–	**5**
Short-term investments	**3**	–	–	**3**
Cash and cash equivalents	**2,771**	–	–	**2,771**
Current assets	**12,853**	(1,316)	185	**11,722**
Assets held for sale	**5**	–	–	**5**
TOTAL ASSETS	**25,538**	(1,836)	381	**24,083**
LIABILITIES				
Borrowings	**(172)**	–	–	**(172)**
Other financial liabilities	**(651)**	(42)	–	**(693)**
Trade payables and other liabilities	**(7,957)**	(1,497)	3,321	**(6,133)**
Contract liabilities	**–**	–	(3,366)	**(3,366)**
Current tax liabilities	**(211)**	–	–	**(211)**
Provisions for liabilities and charges	**(543)**	(73)	(16)	**(632)**
Current liabilities	**(9,534)**	(1,612)	(61)	**(11,207)**
Borrowings	**(3,185)**	–	–	**(3,185)**
Other financial liabilities	**(5,129)**	–	–	**(5,129)**
Trade payables and other liabilities	**(3,459)**	(1,549)	3,186	**(1,822)**
Contract liabilities	**–**	–	(2,946)	**(2,946)**
Deferred tax liabilities	**(776)**	533	(470)	**(713)**
Provisions for liabilities and charges	**(216)**	–	(47)	**(263)**
Post-retirement scheme deficits	**(1,375)**	–	–	**(1,375)**
Non-current liabilities	**(14,140)**	(1,016)	(277)	**(15,433)**
TOTAL LIABILITIES	**(23,674)**	(2,628)	(338)	**(26,640)**
NET ASSETS/(LIABILITIES)	**1,864**	(4,464)	43	**(2,557)**

Footnote reference 1 as per previous page.

Principal risks and uncertainties

The following table describes the principal risks facing the Group, notwithstanding that there are other risks that may occur and may impact the achievement of the Group's objectives:

Principal risk or uncertainty	How we manage it
Strategic transformation Failure to deliver our strategic transformation, including changing our behaviours could result in: missed opportunities; dissatisfied customers; disengaged employees; ineffective use of our scarce resources; and increasing the likelihood of other principal risks occurring. This could lead to a business that is overly dependent on a small number of products and customers; failure to achieve our vision; non-delivery of financial targets and not meeting investor expectations.	• Implementing a new organisational operating model. • Focusing on behaviours to drive cultural change. • Simplifying the processes in our Rolls-Royce • Management System, whilst ensuring we comply with our legal, contractual and regulatory requirements. • Horizon scanning and scenario planning. • Investing in products with lower emissions, reducing our impact on climate change. • Employee innovation portal.
Competitive environment The presence of competitors in the majority of our markets means that the Group is susceptible to significant price pressure for original equipment or services. Our main competitors have access to significant government funding programmes as well as the ability to invest heavily in technology and industrial capability. Disruptive technologies or new entrants with alternative business models could also reduce our ability to sustainably win future business, achieve operating results and realise future growth opportunities.	• Horizon scanning for emerging technology and other competitive threats, including patent searches. • Establishing our Innovation Hub to invest in innovation, manufacturing and production, and ensure continuing governance of technology programmes. • Enhancing our capabilities to access, invest in and develop key technologies and innovative service offerings which differentiate us competitively. • Improving the quality, delivery and durability of our products and services through investment in innovation, manufacturing and production capabilities. • Forming strategic partnerships and conducting joint research programmes with our partners. • Driving down cost to improve margins. • Protecting credit lines. • Strengthening our balance sheet to enable access to cost-effective sources of third party funding.
Cyber threat An attempt to cause harm to the Group, its customers, suppliers and partners through the unauthorised access, manipulation, corruption, or destruction of data, systems or products through cyber space.	• 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. • Running security and network operations centres. • Actively sharing cyber security information through industry, government and security forums. • Information and product assurance processes. • Training and awareness to improve cyber security culture.
Major product programme delivery Failure to deliver a major programme on time, within budget, to technical specification or 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. • Investing in facilities and people to manage the level of disruption to our customers from Trent 1000 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.
Business continuity The major disruption of the Group's operations, which results in our failure to meet agreed customer commitments and damages our prospects of winning future orders. Disruption could be caused by a range of events, for example: extreme weather or natural hazards (e.g. earthquakes, floods); political events; financial insolvency of a critical supplier; scarcity of materials; loss of data; and fire or infectious disease. The consequences of these events could have adverse impact on our people, our internal facilities or our external supply chain.	• Sustaining investment in adequate capacity, modern equipment and facilities, dual sources of supply and researching alternative materials. • Promoting and developing resilience within our external supplier partners. • Providing a supplier finance programme in partnership with banks to enable our suppliers to benefit from the Rolls-Royce credit rating and access funds at low interest rates (in 2018, 155 suppliers used the programme). • Building a resilient culture through flexible and collaborative working, using our single group-wide incident management framework. • Developing, maintaining and regularly exercising effective business continuity and crisis management plans to prepare our people to respond quickly and confidently to any business disruption. • Sharing lessons learned identified through exercises or incidents. • Scanning the horizon to provide awareness of emerging risks/potential incidents.

Principal risk or uncertainty	How we manage it
Safety Failure to meet the expectations of: i) our customers to provide safe products which minimise the impact on the environment during their production or use; or ii) people who work for or with us to provide a safe and healthy place of work which minimises the impact on the environment, would adversely affect our reputation and long-term sustainability.	We manage product safety by: • Ensuring clear accountability for safety and a culture that puts safety first. • Applying our engineering design and validation process from initial design, through production and into service to reduce the safety risks so far as is reasonably practicable; always ensuring that we meet or better the relevant company, legal, regulatory and industry requirements. • Operating a safety management system, governed by the product safety assurance board, and subject to continual improvement based on review of existing and emerging threats, experience, and industry best practice. • Ensuring that our products and those of our suppliers conform to their specification. • Ensuring that everyone receives appropriate product safety awareness training. We manage people's safety and wellbeing by: • Ensuring clear accountability for HSE and a culture that puts operating safely first. • Refreshing our global HSE policy and introducing our Zero Harm programme. • Operating an HS&E management system, including reporting, investigating and learning lessons from incidents. • Driving sustainable use of resources.
Talent and capability Inability to identify, attract, retain and apply the critical capabilities and skills needed in appropriate 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 and locally in a planned and targeted way, including regular benchmarking of remuneration. • Developing and enhancing organisational, leadership, technical and functional capability to deliver global programmes. • Continuing a strong focus on individual development and succession planning, recognising the changing nature of careers and expectations of work. • 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 where everyone can be at their best 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 regular employee opinion surveys and a commitment to drive year-on-year improvement to employee engagement.
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. • 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. • 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.

Principal risk or uncertainty	How we manage it
Compliance Non-compliance by the Group with legislation, the terms of the DPAs or other regulatory requirements in the heavily regulated environment in which it operates (e.g. export controls; use of controlled chemicals and substances; anti-bribery and corruption; environmental regulation and tax and customs legislation). This could affect our ability to conduct business in certain jurisdictions and would expose the Group to potential: reputational damage; financial penalties; debarment from government contracts for a period of time; and 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. Global mandatory policies, processes and training 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. • Regular reviews of the strength of relevant teams including the ethics, anti-bribery and corruption, compliance, tax, sustainability and export control teams. • A legal team is in place to manage any ongoing regulatory investigations. • Engaging with all relevant 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.
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: changes in key political relationships; explicit trade protectionism, differing tax or regulatory regimes, potential for conflict or broader political issues; and heightened political tensions.	• Where possible, diversifying our global operations to avoid excessive concentration of risks in particular areas. • The Group's businesses, strategic marketing network and global government relations teams proactively monitoring local situations. • We develop and maintain relationships with governments and stakeholders and proactively influence policy, regulation and legislation where it affects us. • Steering committee to co-ordinate activities across the Group and minimise the impact of Brexit.

Annual General Meeting

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. This year's AGM will be held at 11.00am on Thursday 2 May 2019 at the Ashton Gate Stadium, Ashton Road, Bristol, BS3 2EJ. Shareholders can ask questions of the Board on the matters put to the meeting, including the Annual Report and the running of the Company generally. All Directors are invited to attend each AGM. Unless unforeseen circumstances arise, all committee chairmen will be present to take questions at the AGM.

Payments to shareholders

The Company issues non-cumulative redeemable preference shares of 0.1p (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 2019 must ensure that their instructions are lodged with the Registrar no later than 5:00pm (BST) on 3 June 2019 (CREST holders must submit their election in CREST before 3:00pm (BST) on 3 June 2019). Redemption will take place on 4 July 2019.

At the 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 1 July 2019 to shareholders on the register on 26 April 2019 and the final day of trading with entitlement to C Shares is 25 April 2019. Together with the interim issue on 3 January 2019 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.

Annual report and financial statements

The statements below have been prepared in connection with the Company's full Annual Report for the year ended 31 December 2018. Certain parts thereof are not included in this announcement.

Going concern

The going concern assessment considers whether it is appropriate to prepare the financial statements on a going concern basis. The Board has also considered the net liability position at 31 December 2018 and the going concern status of the Group's material subsidiaries.

The Group meets its funding requirements through a mixture of shareholders' funds, bank borrowings, bonds and notes. At 31 December 2018, the Group had borrowing facilities of £6.9bn and total liquidity of £7.5bn, including cash and cash equivalents of £5bn and undrawn facilities of £2.5bn. £858m of the facilities mature in 2019.

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).

Directors' confirmations

The Directors consider that the Annual Report, taken as a whole, is fair, balanced and understandable and provides the information necessary for shareholders to assess the Group and parent company's position and performance, business model and strategy.

Each of the Directors, whose names and functions are listed in the Directors' Report, confirm that to the best of his or her knowledge:

- the Group Financial Statements, which have been prepared in accordance with IFRSs as adopted by the European Union, give a true and fair view of the assets, liabilities, financial position and loss of the Group;

- the parent company Financial Statements, which have been prepared in accordance with United Kingdom Generally Accepted Accounting Practice (United Kingdom Accounting Standards, comprising FRS 101 Reduced Disclosure Framework, and applicable law), give a true and fair view of the assets, liabilities, financial position and result of the Company; and

- the Strategic Report includes a fair review of the development and performance of the business and the position of the Group and parent company, together with a description of the principal risks and uncertainties that it faces.

By order of the Board

Warren East Chief Executive	Stephen Daintith Chief Financial Officer

28 February 2019