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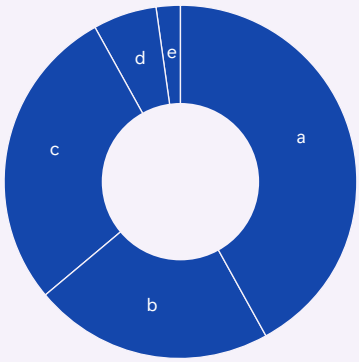
Use of underlying performance measures in the Annual Report
All figures in the narrative of the Strategic Report are underlying unless otherwise stated. We believe this is the most appropriate basis to measure our in-year performance as underlying results reflect the substance of trading activity, including the impact of the Group's foreign exchange forward contracts, which lock in transactions at predetermined exchange rates. In addition, underlying results exclude the accounting impact of business acquisitions and disposals, impairment charges and exceptional items. A full definition of underlying and the reconciliation to the reported figures are in note 2 of the Consolidated Financial Statements on page 126. All references to organic change are at constant translational currency and exclude M&A.

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

PIONEERS OF POWER

Rolls-Royce pioneers cutting-edge technologies that deliver clean, safe and competitive solutions to meet our planet's vital power needs. Our purpose is to pioneer the power that matters to connect, power and protect society.

FREE CASH FLOW[1]	REPORTED CASH FLOW[2]	UNDERLYING REVENUE	REPORTED REVENUE
£(4,185)m	**£(995)m**	**£11,763m**	**£11,824m**
2019: £873m	2019: £(413)m	2019: £15,450m	2019: £16,587m
UNDERLYING OPERATING (LOSS)/PROFIT	**REPORTED OPERATING (LOSS)**	**UNDERLYING (LOSS)/PROFIT BEFORE TAX**	**REPORTED (LOSS) BEFORE TAX**
£(1,972)m	**£(2,081)m**	**£(3,958)m**	**£(2,910)m**
2019: £808m	2019: £(852)m	2019: £583m	2019: £(891)m
UNDERLYING EARNINGS PER SHARE[3]	**REPORTED EARNINGS PER SHARE[3]**	**NET FUNDS[4]**	**LIQUIDITY[5]**
(66.78)p	**(52.95)p**	**£(1,533)m**	**£9.0bn**
2019: 5.44p	2019: (23.70)p	2019: £1,361m	2019: £6.9bn



UNDERLYING REVENUE BY BUSINESS IN 2020

a. Civil Aerospace	**42%**
b. Power Systems	**22%**
c. Defence	**28%**
d. ITP Aero	**6%**
e. Non-core businesses	**2%**

ORDER BACKLOG	GROSS R&D EXPENDITURE[6]	COUNTRIES WITH ROLLS-ROYCE PRESENCE	EMPLOYEES (MONTHLY AVERAGE)
£53.7bn	**£1.25bn**	**45**	**48,200**

[1] Free cash flow is defined in note 29 on page 176.
[2] In 2020, reported cash flow includes £2bn cash from the rights issue in the year and £1.6bn from changes in borrowings and lease liabilities. A full reconciliation from free cash flow to reported cash flow is included on page 176.
[3] 2019 EPS figures restated to reflect bonus element of rights issue, see note 6 on page 137.
[4] Net funds (excluding lease liabilities) is defined on page 110.
[5] Liquidity is defined as net funds plus any undrawn facilities, as listed on page 54.
[6] See note 3 on page 132 for a reconciliation of gross R&D expenditure to total R&D expenditure.

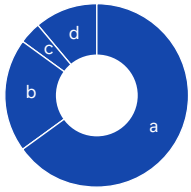
See note 2 on page 126 for a reconciliation between underlying and reported results.

CORE BUSINESSES IN 2020

CIVIL AEROSPACE

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

UNDERLYING REVENUE MIX



a. Large Engines	**65%**
b. Business Aviation	**20%**
c. Regional	**4%**
d. V2500	**11%**

UNDERLYING REVENUE

£5,089m

2019: £8,107m

UNDERLYING OPERATING (LOSS)/PROFIT

£(2,574)m

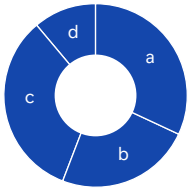
2019: £44m

See page 25

POWER SYSTEMS

Power Systems is a leading provider of high-speed reciprocating engines, and complete propulsion and power generation systems. It serves the marine, defence, power generation and industrial markets.

UNDERLYING REVENUE MIX



a. Marine	**32%**
b. Industrial	**24%**
c. Power Generation	**33%**
d. Defence	**11%**

UNDERLYING REVENUE

£2,745m

2019: £3,184m

UNDERLYING OPERATING PROFIT

£178m

2019: £367m

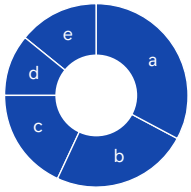
See page 28

2019 figures restated to exclude Civil Nuclear Instrumentation & Control and Bergen Engines

DEFENCE

Defence is a market leader in aero engines for military transport and patrol aircraft with strong positions in combat and helicopter applications. It has significant scale in naval and provides through-life support of the nuclear power plant for the Royal Navy's submarine fleet.

UNDERLYING REVENUE MIX



a. Transport	**33%**
b. Combat	**24%**
c. Submarines	**18%**
d. Naval	**11%**
e. Other	**14%**

UNDERLYING REVENUE

£3,366m

2019: £3,250m

UNDERLYING OPERATING PROFIT

£448m

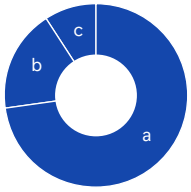
2019: £415m

See page 30

ITP AERO

ITP Aero is a global leader in aero-engine subsystem design. Alongside the development, manufacturing, assembly and testing of engine components, it provides MRO services for regional airlines, business aviation, industrial and defence applications.

UNDERLYING REVENUE MIX



a. Civil	**73%**
b. Defence	**18%**
c. In-Service Support	**9%**

UNDERLYING REVENUE

£705m

2019: £936m

UNDERLYING OPERATING PROFIT

£68m

2019: £111m

See page 32

A CHALLENGING YEAR

The impact of the COVID-19 pandemic on Rolls-Royce has been stark and driven decisive and transformative action. The steps we have taken in 2020 will provide the Group with improved financial resilience in order to weather macroeconomic risks before we return to strong cash generation.

SIR IAN DAVIS, CHAIRMAN

The impact of the COVID-19 pandemic on Rolls-Royce has been stark and we have taken decisive and transformative action to restructure fundamentally our operations, materially reduce our cost base and improve our financial position. During the year, we have launched the largest restructuring in our recent history, secured further liquidity through a rights issue and by raising additional debt, and launched a significant disposal programme. We believe these steps will provide the Group with improved financial resilience, in order to weather the macroeconomic risks, before we return to strong cash generation; and assist us in creating a more appropriate balance sheet structure as we position the Group for the long term to benefit from new technologies focused on sustainable power.

The sudden and material effect of measures taken by governments worldwide to stem the outbreak of COVID-19 has had a significant impact on the commercial aviation industry, particularly the market for long-haul travel. This resulted in a sharp deterioration in the financial performance of our Civil Aerospace business – which makes the majority of its cash flow from payments based on the number of hours that our engines are powering our customers' aircraft – and, to a much lesser extent, our Power Systems business.

We came into the year in a stronger position than previously, with net funds of £1.4bn and confident of our ability to achieve our target of at least £1bn of free cash flow, following significant progress made over the previous two years. As a result of the impact of the pandemic, however, we exited the year with net debt of £1.5bn and a free cash outflow of £4.2bn.

Decisive actions in response to COVID-19

The pandemic has affected lives throughout the world and impacted everyone at Rolls-Royce. The Board has actively scrutinised the actions being taken to secure the safety and wellbeing of our people. Alongside measures introduced to ensure physical health in the workplace, we have paid particular attention to mental health support. This has been a time of understandable anxiety for many employees, with the impact of the pandemic compounded by our restructuring, the pressures of remote working and, for some of our people, a period of time on furlough or similar schemes. The mental wellbeing of our people has been a significant focus for the Board.

Ensuring safety is one of our key values at Rolls-Royce and in our initial response to the outbreak, we rapidly implemented a number of proactive safety measures, in line with local and national guidelines (see pages 6 and 40). Despite the obvious pressure the virus has created, we continued to reduce workplace incidents (see page 41) while avoiding any significant outbreaks of the virus at our sites. The cultural and behavioural progress that Rolls-Royce has made over the past several years, I believe, also benefitted the Group during these incredibly testing times. Our people around the world have embraced agility, acted boldly, worked more collaboratively and promoted simplicity in the actions they have taken to deal with the impact of the pandemic. We also supported local and national efforts to combat the impact of the pandemic (see page 43) including participating in the production of additional healthcare equipment.

We implemented a number of cost mitigation measures to conserve cash from March and took action to bolster our liquidity position, allowing us time to conduct a more detailed review of the Group's capital structure and funding options. We also made use of government schemes, such as furlough in the UK, and remain grateful for the support we have received. In May, we launched a fundamental restructuring programme that will resize the cost base and capital requirements of our Civil Aerospace business and increase cost efficiency. This vital 'self-help' is intended to adjust our business to the new level of anticipated demand from customers and deliver larger, permanent savings to replace and expand on the mitigating actions delivered by the Group in 2020.

During the year, the Board increased oversight and scrutiny, providing counsel and constructive challenge to the Executive Team as it dealt with the pandemic, through a high number of additional meetings and calls (see page 70). We conducted a detailed review of the Group's

outlook, balance sheet, capital structure and funding options, considering a number of different scenarios and assessing their potential impact on the Group's financial position. This included consideration of a severe but plausible downside scenario (see page 53). There remains significant uncertainty about the precise pace of the recovery and the possibility of delays remains a risk and, as a Board, we considered it prudent to prioritise resilience and flexibility. Taking into account, in particular, our severe but plausible downside scenario, alongside continued global and macroeconomic uncertainty, we determined in October that it was in the best interests of shareholders to seek to raise additional capital of approximately £2bn through a rights issue, secure additional facilities to take our total debt raised in the year to £5.3bn, and deliver a number of potential disposals to raise gross proceeds of at least £2bn by early 2022.

We thank shareholders for the overwhelming support we received for the rights issue, which enabled us to improve our liquidity headroom while supporting disciplined execution and investment to ensure we maximise value from our existing capabilities. It will allow us to continue on our journey to securing a more appropriate balance sheet and deliver disposals in a manner that ensures value for our shareholders, as we position the Group for the long term to benefit from new technologies focused on sustainable power.

Due to the limited visibility of the duration and impact of the pandemic, we withdrew our previous guidance for 2020 in April and subsequently made clear commitments to investors alongside our fund raising. It is vital that the interests of the Executive Team are aligned to our new reality, while our remuneration policy must avoid the potential for windfalls caused by a general market recovery following the pandemic. As a result, the Remuneration Committee has decided to replace our previous long-term incentive plan and introduce a new policy to be voted on at the 2021 AGM (see page 81).

As the world emerges from the pandemic, we will benefit from our broad portfolio, with Defence expected to remain resilient and Power Systems benefitting from its shorter cycle industrial end market exposure. We believe we have a clear responsibility to all our stakeholders to return the Group to strength with a sustainable and right-sized cost base, aimed at ensuring the Group's future success and the Board intends to take all appropriate actions to secure this outcome.

Shareholder payments

Although we took swift action to conserve cash and bolster our liquidity, the Board decided in April that, in light of the uncertain macro outlook, they would not recommend a final shareholder payment for 2019. This was a difficult but prudent decision as the scale of the crisis became apparent. We also confirmed in August that no interim shareholder payment would be made in 2020. For the foreseeable future, under the terms of certain of our loan facilities we have in place, we are currently restricted from making payments to our shareholders until after 31 December 2022. Further information can be found in Shareholder Information on page 211.

Board developments

In August, Stephen Daintith informed the Board that he had decided to leave to take up another opportunity. Stephen has remained in his role to ensure the effective delivery of the cost mitigations targeted in 2020 and will leave on 19 March 2021. He has been a valued member of the Board and management team and has made a huge contribution to the Group. I would like to thank him for his hard work. His successor, Panos Kakoullis, will take up his role on 3 May 2021. During the year, we welcomed George Culmer and Dame Angela Strank to the Board as Non-Executive Directors in January and May respectively. We have also appointed Paul Adams who joins us in March 2021. Finally, on behalf of the Board, I would like to thank Lewis Booth, Sir Frank Chapman and Jasmin Stablin, all of whom will be stepping down at the 2021 AGM, for their tremendous support during their tenure (see page 61).

Looking forward

Our markets remain fundamentally attractive and the actions we have taken in 2020 should enable us to deliver on the clear commitments we have made to investors. We must complete the fundamental restructuring of our business in order to be able to benefit from the eventual recovery in commercial aviation from COVID-19. Although the pathway to strong free cash flow remains dependent on the exact timing and shape of that recovery, notably with regards to long-haul air travel, our intent is to return the Group to positive free cash flow during the second half of 2021, with positive annual free cash flow as early as 2022, excluding the cash impact from our disposal programme. Continuing news about vaccine programmes being developed and undertaken around the world should give all of us cause for optimism about the future.

As countries across the world emerge from the restrictions designed to combat the pandemic and seek to revive their economies, the desire for economic development to be more robustly coupled with a reduction in global carbon emissions will only grow stronger. This represents a challenge for Rolls-Royce (see page 48), but also a very significant business opportunity, which we are grasping firmly as a central part of our strategy (see page 10). We believe that over the longer term, the end markets in which we operate will see growing demand for cleaner and more sustainable power and we are already positioning ourselves to play a crucial role in the world's transition towards a net zero carbon economy. Alongside our own commitment to achieve net zero greenhouse gas emissions in our operations and facilities by 2030 (see page 36), our technology will play a fundamental role in enabling the sectors in which we operate achieve net zero carbon by 2050 (see page 34).

Finally, I and the Board would like to thank everyone in Rolls-Royce for their resilience, determination and extraordinary hard work in what have been exceptionally challenging circumstances.

Sir Ian Davis
Chairman

DECISIVE ACTION TO SECURE OUR FUTURE

Unprecedented times have called for unprecedented action and we have a responsibility to all our stakeholders, who have shown such faith in us during 2020, to secure a sustainable and prosperous future for Rolls-Royce.

WARREN EAST, CHIEF EXECUTIVE

Unprecedented is a word I have used many times during 2020 and for good reason. The impact of the COVID-19 pandemic during the year on the largest part of our business, Civil Aerospace, has been exactly that and unprecedented times have called for unprecedented action. We have launched the largest restructuring in our recent history, embarked upon the consolidation of our global manufacturing footprint, introduced stringent cost reduction measures and begun a disposals programme to raise at least £2bn by early 2022. The hard work, dedication and sacrifice of everyone at Rolls-Royce in securing our future in the face of the sudden and material effect of the pandemic on the commercial aviation industry, has been exceptional.

During the year, we have had to call upon investors for funds, securing £2bn in equity and £5.3bn of debt to increase our resilience, support our long-term strategy and assist us in our journey towards enhancing our liquidity and strengthening the balance sheet. Of the existing facilities available to the Group, £5.5bn remains undrawn at the year-end. All of us at Rolls-Royce are grateful for the support that investors have given us in providing sufficient liquidity to weather this crisis. We now have a heightened sense of responsibility to all our stakeholders, who have shown such faith in us during 2020, to secure a sustainable and prosperous future for Rolls-Royce. My sense of responsibility is particularly acute to those who are leaving the business in the restructuring, to those who remain with us and those who will come after us and pioneer the technologies required for decades to come. As we recover from the impact of the pandemic on our business, we must retain and indeed strengthen our focus on playing a crucial role in the transition to a net zero carbon economy by creating the sustainable power that our customers require.

Safeguarding our people and business

The fact that we were able to act swiftly and decisively in 2020 owes much to the work we undertook over the previous two years to create a tangible and sustainable cultural and performance shift within our business. We entered 2020 with real momentum. Following a period of rapid growth and new engine programme launches, R&D investment demands were falling in Civil Aerospace and returns improving as we began to benefit from our large, growing and relatively young installed base. The benefits from this have now been delayed, but these fundamentals remain in place and position us well for the eventual rebound.

As the pandemic hit, we implemented proactive measures, aligned with local and national guidelines, to help keep our people safe and minimise operational disruption. These included introducing remote working practices alongside workplace measures such as social distancing, enhanced hygiene procedures and modified shift systems in our manufacturing facilities. As a result, our facilities have remained operational throughout the pandemic with no significant outbreaks. Recognising that the impact of the pandemic extends well beyond the purely physical, we also increased our focus on employee mental health and wellbeing, with additional online tools and an expansion of our network of mental health champions. We also provided practical assistance to our communities where we could. In the UK, we worked with partners, suppliers and healthcare professionals to build a parallel supply chain for new ventilator assembly plants. We also created a fast-make intubation shield for use with ventilators and we allowed many of our own employees to use their own initiative to create vital PPE for local hospitals. Our R^2 Data Labs team, meanwhile, launched the Emergent Alliance, a global community with more than 140 members that is using data analytics to assist the global economic recovery. As schools closed worldwide, we also increased the range of STEM (science, technology, engineering and mathematics) materials that we have available for free online.

As governments around the world moved quickly to try and halt the spread of COVID-19, much of the global airline fleet was grounded from the end of the first quarter of the year. At their lowest point, in April, our large engine flying hours (EFH) were down 80% on the same period in 2019. In response to this sudden market deterioration, we executed short-term mitigations to reduce our cash expenditure including minimising discretionary spend and reducing salary costs. These swift actions saved us more than £1bn in 2020.

Although flying activity increased from the low point in April, for the year as a whole large engine flying hours were 43% of 2019 levels, with a consequent dramatic impact on our free cash flow. The drop in activity in Civil Aerospace and our decision to cease invoice factoring (see page 18), resulted in an overall free cash outflow of £4.2bn for the year as a whole.

Fundamental restructuring

The impact of COVID-19 on our Civil Aerospace business will not just be felt in 2020. The pandemic has created probably the most difficult period that global aviation has faced in peacetime. The medium-term market for our Civil Aerospace business will be significantly smaller than previously anticipated. As a result, in May we launched a major restructuring programme to resize the cost base and capital requirements of our Civil Aerospace business to adapt to this new reality and deliver run-rate savings of at least £1.3bn by the end of 2022. The successful completion of this programme, alongside an anticipated recovery in our end markets, is vital to restoring our financial performance.

The impact of COVID-19 on Civil Aerospace will not just be felt in 2020. A successful completion of our fundamental restructuring is vital to restoring our financial performance.

In total, we expect the restructuring to lead to the reduction of at least 9,000 roles. By the end of the year, approximately 7,000 roles (see page 42) had been removed with a significant proportion achieved through voluntary severance. Telling anyone that there is no longer a job for them is a terrible prospect and it is especially hard when all of us take so much pride in working for Rolls-Royce. But we have had to make tough choices to see the Group through these unprecedented times. Throughout the pandemic, we have made use of the short-term support mechanisms created by governments including furlough in the UK and comparable schemes in other countries. We are grateful for this support, but no government scheme can replace sustainable customer demand that is not there over the medium-term and we have had to act. Our Civil Aerospace facilities have seen a medium-term reduction in demand and so we must resize our manufacturing footprint. During the year, we announced proposals including the consolidation of widebody engine assembly and test from three global sites to one in Derby, UK, and the transfer of our aero-engine parts facility and workforce in Hucknall, UK, into ITP Aero.

ITP Aero is one of a number of assets that we have identified for potential disposal to raise proceeds of at least £2bn by early 2022. Notwithstanding the outcome, ITP Aero is a key partner and we will retain a long-term relationship with the business across our Civil Aerospace and Defence programmes. In December 2020, we announced the sale of our Civil Nuclear Instrumentation & Control business and in early in 2021, we also announced the sale of our Bergen Engines medium-speed gas and diesel engines business.

Power Systems and Defence

The impact of the pandemic on Power Systems has been far less severe than on Civil Aerospace and driven primarily by lower levels of economic activity caused by the restrictions imposed globally in order to contain the outbreak (see page 28). Diversified end market exposure resulted in a relatively resilient performance. Lower economic activity and reduced utilisation of the installed base of engines due to the pandemic caused a substantial drop in commercial and industrial markets. However, governmental demand remained intact and we grew strongly in China, where economic conditions were better. Power Systems has been working actively to improve its manufacturing fixed cost base, optimising efficiency and balancing its global footprint. As economic activity resumes, we expect Power Systems to recover relatively quickly. Some end markets may actually experience structurally higher demand as a result of the pandemic, notably in mission-critical power generation. This is one of the areas where we expanded the capabilities of Power Systems during the pandemic through acquisition, buying Kinolt Group, to strengthen our position in back-up power generation. That followed the acquisition of a majority stake in Qinous at the start of the year, which enhanced our microgrid offering.

Our Defence business had a strong year and did not experience any material operational or financial disruption from the pandemic (see page 30). Support for the defence industry from governments and other customers in our key markets was swift. Action from the UK Government, for instance, has enabled us to redeploy engineers from Civil Aerospace into Defence in order to retain key skills. We also continued with our work on the Tempest future combat programme in the UK and won business during the year, with our MT30 marine gas turbine selected for the Republic of Korea Navy's FFX Batch III frigate.

Driving growth and maximising value from our existing capabilities

While the pandemic has not altered our commitment to our long-term strategy, we are pursuing stronger medium-term growth opportunities and placing a greater relative focus on investment in Power Systems and Defence.

Increased investment in Power Systems will enable the continued development of new technologies such as hybrid-electric systems and assist us in exploiting the opportunities presented by fast growing markets and the move to more integrated power systems solutions. We have reorganised the internal structure of Power Systems to focus individually on stationary, mobile and sustainable power solutions with a fourth business unit concentrating solely on China.

In Defence, we have invested significantly in recent years in pursuing growth opportunities including two major opportunities in the US market: the re-engining of the iconic B-52 and the U.S. Army's Future Long-Range Assault Aircraft (FLRAA) programme (see page 31). These programmes have the potential for over 650 and 4,000 engines respectively, with a combined estimated lifetime value of roughly £7bn. In the latter competition, during the year, we signed an agreement with Bell Textron to provide the propulsion system for its offering, the V-280 Valor aircraft.

In Civil Aerospace, our priority is to drive higher cash returns from our existing installed base while seeking new approaches to reduce the investment requirements for the development of our next generation gas turbine technology. There is significant value embedded in our installed base of approximately 5,000 large and 9,000 small and business aviation engines and we have an important opportunity to realise that value through enhanced time-on-wing, further services offerings and improved engineering efficiency. My confidence in our ability to rise to this challenge was further bolstered in 2020 as we achieved zero aircraft on ground (AOG) for the Trent 1000 fleet half way through the year, assisted by the impact of the pandemic but beating our ambition of single digits.

We remain well positioned to play a crucial role in the world's transition to a net zero carbon economy.

Although we are exiting a period of very intense investment in new Civil Aerospace engine programmes – with seven new engines launched in the past decade – we are giving ourselves technological optionality for the future through our UltraFan programme (see page 10). During the year, we started a new phase of testing for its low emissions combustion system and put into production the first component sets required for a full engine demonstrator which will be fully assembled at the end of 2021. To deliver more compelling returns, we are actively exploring new forms of industrial partnership on the programme.

Focus on sustainable power

We have a target to achieve net zero greenhouse gas emissions in our operations and facilities by 2030, excluding product test emissions (see page 36). We believe, however, that the breadth of our engineering expertise and our established access to a range of end markets mean that we are also well positioned to play a crucial role in the world's transition to a net zero carbon economy. Once we achieve our aim of restoring financial returns and a more appropriate balance sheet, we intend to accelerate this aspect of our strategy to deliver substantial growth by 2025.

We are building on our existing capabilities within Power Systems where land and sea applications are already moving to more electric systems. We already have a proven microgrid product offering and are developing hybrid systems for applications including yachts. We are also building the capability to produce world-class, modular and scalable electric power and propulsion systems for aviation. We have conducted successful ground tests of a hybrid M250 engine for the commuter and urban air mobility markets and have developed an all-electric aircraft, through the ACCEL programme, designed to break the world electric air speed record in 2021. It will provide us with invaluable insights into battery technology for these new disruptive markets. In addition, we are using our growing expertise to develop technologies for the electrification of larger regional aircraft. Electrification is also playing an increasing role in Defence projects.

The sheer scale of the challenge presented by the weight constraints of long-haul flight, means the gas turbine will remain the only viable propulsion option in widebody aircraft for multiple decades. As a result, we must make this technology compatible with a net zero carbon future. We are working with governments and industrial partners to explore the development of sustainable aviation fuels (SAF) and already testing them within our existing Trent engines. As the cost of these new fuels is expected to be higher than existing kerosene-based fuel, an efficient gas turbine architecture, such as our next generation UltraFan, will be a vital component in achieving sustainable aviation. SAFs must be created in a way compatible with net zero carbon, which represents a real opportunity for our small modular reactor (SMR) concept to power their production.

2021 outlook and longer-term prospects

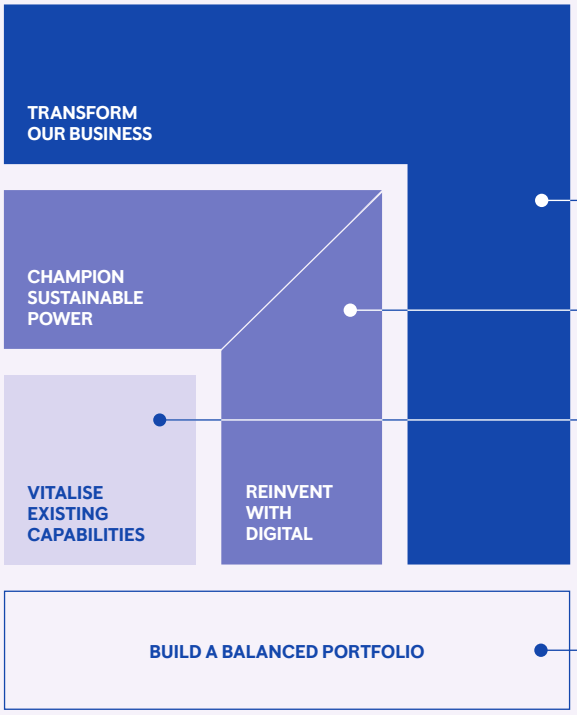
The decisive actions we have taken during 2020 leave us well placed as the recovery unfolds, but we must continue to drive our restructuring in order to realign our cost base. Based on our current view of the shape and timing of the recovery in air traffic, we expect a free cash outflow in the region of £2bn in 2021, weighted towards the first half before we turn free cash flow positive at some point during the second half. We are targeting a return to annual free cash flow of at least £750m (excluding disposals) as early as 2022.

Over the longer term, we believe that the key markets for all our businesses are fundamentally attractive and we remain committed to playing a key part in enabling the sectors in which we operate, some of which are among the hardest to abate, achieve net zero carbon by 2050. We clearly signalled our ambitions in this area during 2020 by joining the UN Race to Zero campaign (see page 36). I firmly believe the world needs the resourcefulness, ingenuity and determination of Rolls-Royce, not only to assist in the recovery of the global economy in the wake of the pandemic, but to provide solutions to the climate crisis. The way that we have tackled the challenge posed by COVID-19 during the year gives me increased confidence that we will repay the faith placed in us by all our stakeholders and achieve a sustainable and prosperous future.

PURPOSE, VISION AND STRATEGY

We are one of the world's leading industrial technology companies.
We pioneer the power that matters to connect, power and protect society.

OUR STRATEGY



Our strategy reflects three horizons:

HORIZON 3
Create genuinely new businesses

HORIZON 2
Nurture emerging businesses

HORIZON 1
Maintain and defend core businesses

At the same time, we need to manage the transition of technologies, capabilities, resources and value across business horizons

STRATEGIC REFINEMENT IN 2020

Our key focus in the near-term in response to COVID-19 is to	Restore financial performance to improve returns and build a more resilient and appropriate balance sheet	Drive growth and maximise value from our existing capabilities	Position the Group to benefit from new technologies with a focus on sustainable power

Progress in 2020

We are a global power group with exposure to multiple markets and a central role to play in providing customers with vital power. Our vision is to pioneer the power that matters and our purpose is to use that power to connect, power and protect society. We believe that, despite the current impact of the pandemic, the key end markets for our businesses remain fundamentally attractive and as a result our overall strategic architecture remains largely unchanged. We have, however, refined our strategic pillar of 'champion electrification' to encompass a wider range of net zero carbon technologies under the banner 'champion sustainable power'. This is in recognition of the increasing importance of ensuring that economic recovery and growth is achieved in a manner compatible with combatting climate change. We are determined to play a crucial role in pioneering a resilient, inclusive, net zero carbon future (see page 36).

HORIZON 1

VITALISE EXISTING CAPABILITIES

Despite the obvious financial pressure caused by the pandemic, we have continued to invest in our existing thermomechanical products to ensure that they provide clean, safe and competitive solutions for our customers, while developing next generation technologies.

The gas turbine will continue to be the bedrock of long-haul aviation for many years and it is vital that we continue to increase its efficiency, not least to improve the economics of the transition to more sustainable fuels which are likely to be more expensive in the short-term than fossil fuels. During the year, we continued to develop the new technologies we will need to achieve this. We started a new phase of testing for our Advanced Low Emissions Combustion System (ALECSys) demonstrator, a key part of our UltraFan programme. Our work on UltraFan continued with parts for our first engine demonstrator going into production in 2020 including the power gearbox, fan blades and fan case. We ended the year training our team in Derby, UK, to build and assemble the engine and commissioning our new Testbed 80, which will be large enough to accommodate it. In business jets, we delivered the 8,000th engine from our site in Dahlewitz, Germany, and our BR725 engine achieved one million flying hours. Our latest business jet engine, the Pearl 700, successfully powered the new Gulfstream G700 for the first time.

In Power Systems, we launched a new MTU Series 500 engine for power generation, which will initially be offered for operation with natural gas but from the end of 2021 will also be available for power by biogas. The 500 series can also be converted to hydrogen operation. We also formed a 50:50 joint venture with Shanghai Cooltech Power, a leading Chinese manufacturer of power generation systems, to produce back-up generator sets powered by MTU engines.

In Defence, our MT30 marine gas turbine was selected for the Republic of Korea Navy's FFX Batch III frigate and we signed a collaborative agreement with the UK Ministry of Defence to strengthen ways of working across key Royal Navy programmes and deliver ongoing support for MT30 and WR-21 engines. Work continued at pace on the Tempest future combat programme, with our engineers developing advanced combustion system technology and exploring composite materials and additive manufacturing to produce lightweight, more power-dense components capable of operating at higher temperatures. In North America, we completed the expansion of our Centre of Excellence for Naval Handling Equipment in Canada. Our Liberty-Works team completed rig testing on a new core design for a small engine, successfully executing a rapid prototyping plan from design to test in under a year; and delivered an upgraded thermal management and power system for directed energy applications.

HORIZON 2

CHAMPION SUSTAINABLE POWER

To meet the demands of a growing, more connected society, the power that matters must be sustainable, net zero carbon power. We have a key role to play in enabling the sectors in which we operate achieve net zero carbon by 2050 and during the year we ratified this ambition by joining the UN Race to Zero campaign. This means pioneering new electric and hybrid-electric technologies, but also ensuring that our products can be utilised in a way that is compatible with net zero through the use of new innovative fuels. The journey to net zero will create significant business opportunities for Rolls-Royce from even more efficient gas turbines using sustainable aviation fuels (SAFs) and all-electric and hybrid-electric propulsion, to microgrids, battery containers and small modular reactors (SMRs).

Aviation has traditionally been seen as hard to decarbonise. We believe, however, that it can be compatible with a net zero future through relentless pursuit of airframe and engine efficiency improvements; improving the economics, and scaling up the production of SAFs; and the exploration of radically new methods of aviation propulsion and fuelling. The vast majority of CO_2 created from aviation is from flights beyond 1,500km, where we believe that radically new methods of propulsion are unlikely to play a significant part in decarbonisation prior to 2050. As a result, gas turbine efficiency improvements and the scale-up of SAFs will be vital. Following the development and entry into service of the world's most efficient large aero engine in service today, the Trent XWB, our UltraFan programme will offer a step-change in efficiency. We believe that the introduction, by regulators or governments, of mandated levels of SAF will bring about a cost burden for airlines and UltraFan will help mitigate rising fuel costs as well as reduce net emissions.

Towards the end of 2020, we conducted ground tests on a Trent 1000 using 100% SAF for the first time (see page 37). The scale-up of SAFs to meet global aviation demand is a major undertaking, with an estimated 500 million tonnes per year needed in order to fuel the global airline fleet that is expected to be flying in 2050. We are engaged with the world's leading energy companies to promote increased production. Our SMR concept also represents a potential low carbon

power source for fully synthetic fuel production. Our Defence aviation customers are also becoming increasingly interested in SAF availability and engine compatibility for reasons of energy security and to assist in their own contribution to decarbonisation. The higher calorific value of SAFs, compared to fossil fuels, may also provide operating range benefits.

Electric and hybrid-electric technologies are set to power a new generation of fixed-wing and vertical take-off aircraft. During the year, we celebrated the first anniversary of the acquisition of eAircraft and we have sharpened our short-term focus to target the small propeller, commuter and urban air mobility (UAM) markets where we are developing complete propulsion systems.

In the small propeller category, our first prototype of an electric propulsion unit to serve aircraft with two to four seats, the RRP70, gained an agreed certification plan with EASA; and in the commuter market we announced plans to work with leading general aviation manufacturer, Tecnam, to jointly develop an all-electric 11-seater aircraft. In UAM, we provided the propulsion system for the CityAirbus demonstrator which successfully completed its flight test programme in 2020. During the year, we decided with our partner Airbus that we did not need to carry out a test flight programme for our E-Fan X technology demonstrator, having already learned valuable lessons. However, our technology in the megawatt space for regional sized jets continues to progress at pace with our 2.5MW generator now in ground testing with system integration tests planned for 2021.

During the year, our ACCEL all-electric aircraft programme completed ground testing of the technology that will power what we hope will be the world's fastest all-electric plane. The aircraft is a test environment for our pure electric flight pack and also intended to inspire the next generation of aerospace innovators. We are aiming to beat the current all-electric flight world speed record in 2021.

Land and sea power generation and propulsion also represent a significant proportion of global emissions and Power Systems is rapidly embracing the drive towards sustainable power. In 2020, we acquired a majority stake in electricity storage specialist Qinous which is now central to our microgrid solutions. We also increased our capacity for producing battery containers and formed a new 'Power Lab' to focus on innovative and net zero carbon drive and energy solutions.

REINVENT WITH DIGITAL

We are using digital technologies across our activities to generate new insights, new solutions and new opportunities. Our capabilities, expertise and connection with the wider data analysis and digital community were highlighted by two activities during the year: the Emergent Alliance and the Aletheia Framework. As the impact of the pandemic grew, we formed the Emergent Alliance of data analytics experts challenged with finding new, faster ways of supporting businesses and governments globally as they recover from its economic impact. At the end of the year, we released the Aletheia Framework, a comprehensive ethical framework and trustworthiness process which we created to assure our own use of artificial intelligence in safety-critical processes. Both programmes were borne out of R² Data Labs which also launched Yocova, a collaboration platform for the aviation sector, in 2020. Across our business, we are making increasing use of digital skills and ensuring that our people can increase their capabilities through our Digital Academy. To help as many as possible during the pandemic, we made its content available online and more than 30,000 have already enrolled.

HORIZON 3

TRANSFORM OUR BUSINESS

We are advancing new opportunities that could capture substantial growth and value for the Group. During the year, the UK Government committed to £215m of grant funding for our consortium working on SMR power plants. This enables the consortium to begin securing additional private investment. The strength of the SMR concept was highlighted during the year as we announced a partnership with Exelon, one of America's largest operators of nuclear power stations, and signed a memorandum of understanding (MOU) with CEZ, the largest utility company in central and eastern Europe.

During the year we also announced a collaboration with Boom Supersonic to explore a propulsion system for Overture, their flagship supersonic passenger aircraft; and signed an MOU with Virgin Galactic to collaborate in designing and developing engine propulsion technology for high-speed commercial aircraft.

BUILD A BALANCED PORTFOLIO

We actively manage our portfolio to focus on activities that are aligned with our strategy and business model. During the year, we announced plans to raise at least £2bn by early 2022 through disposals including ITP Aero. The business is a key partner and we plan to retain a long-term relationship with it across our Civil Aerospace and Defence programmes, but owning ITP Aero is not necessarily a strategic imperative and it may be able to unlock further investment and business opportunities under new ownership. During the year, we completed the sale of our Civil Nuclear North America Services business and announced the sale of our Civil Nuclear Instrumentation & Control business. In early 2021, we also announced the sale of our Bergen Engines medium-speed gas and diesel engines business. We made three acquisitions during 2020 to accelerate our strategy in Power Systems. We acquired a majority stake in electricity storage specialist Qinous, to enhance our microgrid offering. We completed the acquisition of Kinolt, a leader in dynamic uninterruptible power supply, to strengthen our market position in safety-critical applications. We also acquired Servowatch Systems, an international supplier of integrated marine automation solutions for navies, commercial vessels and large yachts, to expand our ship automation activities.

BUSINESS MODEL

OUR COMPETITIVE ADVANTAGE COMES FROM:

CUTTING-EDGE TECHNOLOGIES

We apply cutting-edge technologies to provide clean, safe and competitive solutions. Our technologies ensure that our customers have the vital power that meets their emerging needs in an increasingly sustainable manner.

SYSTEM SOLUTIONS

We integrate individual enabling technologies into complete systems and power solutions. This provides our customers with the ability to work with a single partner to provide their entire power needs for their chosen application.

SYSTEM LIFE

Our products have significant aftermarket and maintenance requirements during their operating lives, which typically run for decades. We provide complete through-life maintenance and support for our power.

PRINCIPAL RISKS

A Safety
B Business continuity
C Climate change
D Competitive environment
E Compliance
F Cyber threat
G Market shock
H Financial shock
I Political risk
J Restructuring
K Talent and capability

Principal Risks, page 46

We believe we have a sustainable business model which will create value for all our stakeholders over the long term. See our Viability Statement on page 55 and Stakeholder Engagement on page 72.

1

Anticipate the needs of our customers

Our focus on building complete power solutions provides the basis for strong customer relationships as we act as a single, trusted power provider. Our aftermarket model of through-life support further deepens these relationships. We have built strong, direct customer relationships which have allowed us to continue winning business during a period of increased macroeconomic uncertainty associated with the pandemic.

2

Develop cutting-edge technologies

Our products incorporate significant intellectual property, capturing cutting-edge technologies that have been developed over decades. Commercial aero engines are extremely complex mechanical engineering products, requiring significant expertise in aerodynamic, thermodynamic and materials technologies. In our Defence business, we are one of only a handful of companies currently capable of designing, integrating and manufacturing complete military jet engines; with significant expertise in powerplants for nuclear-powered submarine applications. Our Power Systems business focuses on demanding, high-end applications for reciprocating engines, in areas such as mission-critical back-up power where start-up time and reliability are critical. We act as a global technology sponsor, drawing upon expertise inside and outside our organisation. In 2020, we continued to invest in R&D despite the pressures on our business caused by the pandemic, with £1.25bn in gross R&D expenditure, supported by governments around the world.

3

Design solutions

We harness the potential of digital technologies and design thinking to create solutions that generate the greatest value from our cutting-edge technologies. This activity is supported by our data innovation catalyst R^2 Data Labs. We produce digital twins in order to test our hypotheses and then validate our results through a rigorous physical testing regime. In our Civil Aerospace and Defence businesses, our capabilities cover end-to-end design, assembly and through-life support of complete gas turbine power solutions. Our Power Systems business is increasingly moving into the provision of complete power generation systems.

4

Develop world-class production capability

We generate value from our cutting-edge technologies and innovative solution designs through effective and efficient delivery of final products. We use our production expertise and network of Advanced Manufacturing Research Centres, alongside our supply chain partners, to harness new manufacturing techniques and technologies.

5

Grow installed original equipment base

Increasing our installed base of products generates both in-year growth and the potential for our business to capture long-term service revenue. In line with our strategic aim to vitalise existing capabilities, we continually look for ways to reduce the time and resource expended on producing existing products, and roll-back new technologies from new programmes into legacy products.

6

Capture through-life value of in-service products

We believe our substantial installed base provides a large, captive, visible, and long-term revenue and cash flow stream. The installed base within our Civil Aerospace business is relatively young, with approximately 9,000 small and business aviation engines in service with an average age of 19 years for small civil jets and 13 years for business jets, as well as approximately 5,000 large engines with an average age of less than nine years. Given an average expected engine life of approximately 40 years for a small or business aviation engine and approximately 25 years for a widebody engine, we expect significant aftermarket revenue and value from our installed base. Similarly, the installed base in our Defence business of approximately 16,000 defence engines is expected to continue to operate for many decades.

7

Generate stakeholder value

Our activities are global, complex and touch upon a wide variety of stakeholders. From investors, employees, customers, suppliers and partners, to communities, local and national authorities, regulatory bodies and armed forces, we aim to create trusted relationships. Over the longer term, the end-markets in which we operate will see growing demand for cleaner and more sustainable power. We will be well positioned to play a crucial role in the world's transition towards a net zero carbon economy and believe execution of our strategy will ultimately provide a strong platform to drive a significant improvement in free cash flow and deliver attractive shareholder returns.

BUSINESS ENVIRONMENT

GROUP TRENDS

COVID-19
In 2020, the Group's performance was significantly impacted by COVID-19. This was most strongly felt in our widebody business in Civil Aerospace, but also in business aviation and Power Systems. Conditions in Defence proved resilient despite the challenging global macroeconomic environment.

Market recovery
The Group expects its key markets to recover over time. Power Systems is expected to recover relatively quickly as economic conditions improve, while a more gradual improvement is expected in Civil Aerospace. Longer term, the outlook remains strong across the Group; global economic growth is expected to increase demand across Civil Aerospace, ITP Aero and Power Systems, while political tensions are expected to preserve the need for Defence products and services.

Our positioning
The Group expects to outperform many of its markets through this recovery period. In Civil Aerospace and ITP Aero, this is driven by our young installed base and strong product positions on new aircraft programmes. In Power Systems, this is due to growing market share in key markets and expanding our sales in low carbon products as our end markets transition to more sustainable power.

Low carbon power solutions
The Group sees common trends across all of its businesses towards electrification and lower carbon power solutions. This shift provides significant opportunities due to our strong technology positions in hybrid and electric power solutions in Power Systems and Civil Aerospace, as well as in small modular reactors and microgrid solutions.

CIVIL AEROSPACE

Market dynamics
- The civil aviation industry has been severely affected by the COVID-19 pandemic, with a particular impact on the widebody market.
- As a result, airlines have postponed investment in new aircraft, leading to a reduction in aircraft production from both Airbus and Boeing.
- Business aviation has also seen a reduction in activity as a result of the COVID-19 pandemic, however the impact was less severe than in the large commercial market.
- In the longer term, the business expects to return to growth, driven by the same market trends witnessed prior to COVID-19:
  - economic growth in both the developed and the developing world;
  - growth in business jet travel supported by further increases in the number of high-net-worth individuals; and
  - the need for newer, more efficient aircraft with reduced greenhouse gas emissions.

Opportunities
- The business has the potential for market share gains during COVID-19, as our relatively young installed base should be less impacted by retirements and recover more quickly than our competitors.
- The strong positions we hold on current in-production widebody aircraft should drive a return to growth in our installed base post-COVID-19.
- In business jets, we hold a strong position in the market by value. This market has been less impacted by COVID-19 and has good long-term fundamental drivers.
- We have the potential to disrupt new markets with sustainable power solutions in general aviation, commuter aircraft and urban air mobility.

Risk
- A slower than expected recovery of the civil aerospace market from the COVID-19 pandemic could significantly impact our financial performance.
- If our products do not achieve their required technical attributes, then our financial performance and reputation could be impacted.
- If a major product failure in service is experienced, then this could result in loss of life and significant financial and reputational damage.
- If there is disruption to the business' internal or external supply chain then our financial performance and reputation could be impacted.
- If there are significant changes to the regulatory environment for the airline industry, the business' market position could be impacted.

POWER SYSTEMS

Market dynamics

- Power Systems has a diverse end market exposure which has offered some protection against COVID-19.
- The most significant impact has been across industrial markets such as construction and agriculture, oil & gas and mining.
- In power generation, underlying demand for mission-critical back-up power remained strong, while in continuous power generation, the reduction in economic activity lowered demand.
- Marine has been more resilient with robust demand from governmental customers in the naval and coastguard markets, though there was an impact on our commercial vessel and yacht activities.
- Following the COVID-19 pandemic, many of the business' end markets are expected to recover quickly, with some even seeing accelerated growth opportunities.

Opportunities

- Power Systems has the potential to become a leader in low carbon power solutions. We have created a separate business unit to focus entirely on these opportunities.
- There is significant potential for market share growth in the Chinese market based on our strategy of using partnerships and localised manufacturing. We have created a separate business unit to focus entirely on these opportunities.
- There is significant growth potential in the mission-critical back-up power market. We have a strong product position in this area.
- Our gas product portfolio has been expanded in recent years, providing growth potential as a lower carbon alternative to diesel.
- Small modular reactors offer a significant opportunity in a new market, with the UK Government expressing support.

Risks

- If the recovery from COVID-19 takes longer than anticipated, then our financial performance could be materially impacted.
- If requirements on export licenses and/or local content increase, then this may affect our ability to export to certain markets.
- If the CO_2 price rises above our expectations and/or the demand for fossil-free power develops faster than anticipated, then this may affect demand for our products and/or affect margins.
- If new technologies or alternative propulsion concepts emerge, then this may lead to partial substitution or downsizing of diesel engines.

DEFENCE

Market dynamics

- Limited near-term impact from the COVID-19 pandemic, with customer demand remaining resilient and minimal operational disruption.
- We expect relatively stable conditions in key markets over the coming years, albeit with continued customer focus on cost reduction.
- In the US market, overall conditions are expected to be flat to slightly declining, while the UK market is expected to be relatively stable in the short term.
- Outside the critical US and UK markets, we expect continued strength in export markets partially driven by local geopolitical tensions.

Opportunities

- In the US, the business is well positioned for the B-52 re-engine competition for the US Air Force and the Future Vertical Long Range Assault Aircraft (FLRAA) competition for the US Army. The combined lifetime value of these programmes is expected to be approximately £7bn.
- In the UK, the Government has demonstrated its commitment to maintaining fighter capability through Project Tempest, with £2bn of initial MOD investment spending committed.
- The business is exploring more electric and hybrid-electric propulsion technologies as well as power generation and thermal management for the growing directed energy systems market.
- The business has various sales opportunities for existing products such as the MT30 naval gas turbine and the EJ200 Eurofighter Typhoon engine.

Risks

- If global defence spending experiences a significant downturn, then financial performance could be impacted.
- If a major product failure in service is experienced, then this may result in loss of life and significant financial and reputational damage.
- If we do not continue to invest in improving the portfolio performance and cost of Rolls-Royce products, then market share may be lost.
- If the business suffers a major disruption in its supply chain, then delivery schedules could be delayed, damaging financial performance and reputation.
- If electrification proceeds faster than expected, then the business may not be positioned to capitalise on this potential growth.
- If geopolitical issues impact government-to-government relations or export controls, then our routes to market may be impacted.

ITP AERO

Market dynamics

- A majority of the business' revenue relates to commercial aerospace markets, with the largest exposure being the Group's widebody engine programmes.
- As a result, the trends driving our Civil Aerospace business have a major impact on ITP Aero's widebody activities.
- A less significant impact is expected in ITP Aero's business aviation and narrowbody activities.
- In the defence market, COVID-19 has had a limited impact, with the reduction in sales in 2020 largely driven by phasing on key programmes.

Opportunities

- Delivery volumes are expected to return to growth from 2021, driven by ITP Aero's position on narrowbody and business jet programmes.
- ITP Aero has won shares as a risk-and-revenue partner on relatively new programmes including the latest Rolls-Royce engines as well as the Pratt & Whitney PW1000G and PW800.
- ITP Aero will benefit from government defence budget growth, particularly in Spain. Mid-life enhancements of existing aircraft programmes and new European aircraft programmes also enable potential growth.

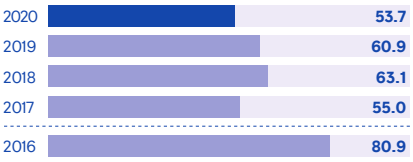
Risks

- If there is a worse-than-expected recovery following COVID-19, then ITP Aero's financial performance could be impacted.
- If ITP Aero's products do not achieve their required technical attributes, then our financial performance and reputation could be impacted.
- If a product failed in service, then this could result in loss of life and significant financial and reputational damage.
- If the business' internal or external supply chain is disrupted then ITP Aero's financial performance and reputation could be impacted.
- If customer programmes were to be delayed into service or production rates cut, then ITP Aero's financial performance could be impacted.

KEY PERFORMANCE INDICATORS

Financial performance indicators [1,2]

ORDER BACKLOG (£BN)

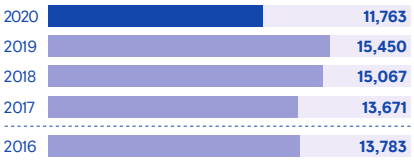


How we define it
Total value of firm orders placed by customers for delivery of products and services. This KPI is the same as the statutory measure for order backlog. See note 2 on page 130 for more information.

Why it is important
Order backlog provides visibility of future business activity.

Link to remuneration
Customer orders drive future revenue growth which in turn, enables profit and cash flow growth. Profit and free cash flow performance are the key financial metrics in both the annual bonus plan and long-term incentive plan (LTIP).

UNDERLYING REVENUE (£M)

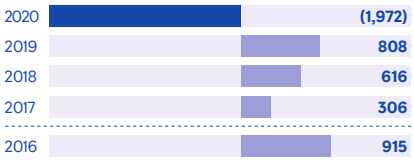


How we define it
Revenue generated from operations at actual rates of foreign exchange including achieved hedge rates in the year. See note 2 on page 126 for a reconciliation to statutory reported revenue.

Why it is important
Underlying revenue provides a measure of business growth and activity.

Link to remuneration
Underlying revenue growth maximises the opportunity to improve profit and free cash flow performance in the year, both of which are key financial metrics in the annual bonus plan and LTIP.

UNDERLYING OPERATING (LOSS)/PROFIT (£M)

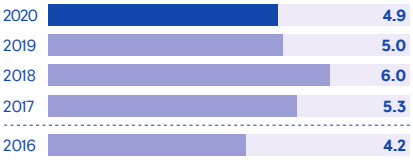


How we define it
Profit generated from operations at actual rates of foreign exchange including achieved hedge rates in the year. It excludes exceptional and one-off items. See note 2 on page 126 for a reconciliation to statutory reported operating profit.

Why it is important
Underlying operating profit indicates how the effect of growing revenue and control of our costs delivers value for our shareholders.

Link to remuneration
Profit and EPS are key financial performance measures for our annual bonus plan and LTIP.

CAPITAL EXPENDITURE AS A PROPORTION OF UNDERLYING REVENUE (%)

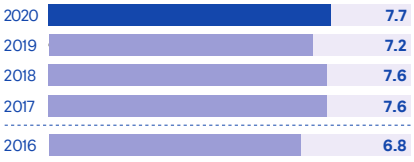


How we define it
Cash purchases of property, plant and equipment in the year relative to underlying revenue. There is no statutory equivalent to this KPI.

Why it is important
This measure demonstrates the balance between essential investments in infrastructure and delivering short-term shareholder returns.

Link to remuneration
Disciplined allocation of capital expenditure optimises in-year profit and cash flow performance without compromising longer-term growth. Metrics in our LTIP reward strong financial performance through EPS, CPS and TSR over the three-year life of the plan.

SELF-FUNDED R&D AS A PROPORTION OF UNDERLYING REVENUE (%)

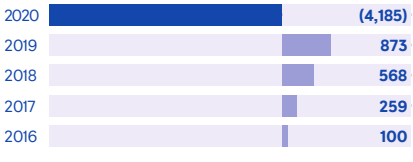


How we define it
In-year self-funded cash expenditure on R&D before any capitalisation or amortisation relative to underlying revenue. There is no statutory equivalent to this KPI.

Why it is important
This measure demonstrates the balance between long-term strategic investments and delivering short-term shareholder returns.

Link to remuneration
Disciplined control and allocation of R&D expenditure optimises in-year profit and cash flow performance without compromising long-term growth through innovation. There is a balance of metrics in our LTIP which reward strong financial performance through EPS, CPS and also relative returns to our shareholders through TSR over the three-year life of the plan.

FREE CASH FLOW (£M)



How we define it
Free cash flow is the movement in net debt from cash flows excluding: transactions with ordinary shareholders; M&A activity; financial penalties paid; exceptional restructuring payments; and the capital element of lease payments. Cash flow is our statutory equivalent, see note 29 on page 176.

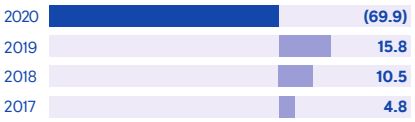
Why it is important
Free cash flow is the principal metric to measure the performance of our business and how effectively we are creating value for our shareholders. It enables the business to fund growth, reduce debt and make shareholder payments.

Link to remuneration
Free cash flow is our key financial metric in the annual bonus plan, accounting for 50% of the overall targets. CPS is a key driver for our LTIP.

[1] Following the adoption of IFRS 15 *Revenue from Contracts with Customers* in 2018, the 2017 figures were restated. Dotted lines separate pre and post IFRS 15 figures on all affected KPIs.
[2] The adoption of IFRS 16 *Leases* in 2019 had no material impact on our financial KPIs, see page 206 for more information.

Financial performance indicators [1,2]

FREE CASH FLOW PER SHARE (PENCE)[3]

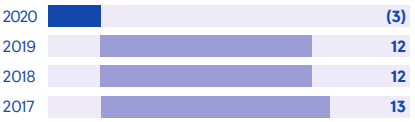


How we define it
Free cash flow in the year divided by the average number of shares in issue in the year. This measure was introduced in 2018. See page 176 for a reconciliation of underlying to reported cash flow.

Why it is important
Cash flow per share ensures alignment with shareholder interests and is a key measure of the economic performance of our business.

Link to remuneration
CPS is the largest driver of the LTIP at 60% of the total.

CASH RETURN ON INVESTED CAPITAL (%)



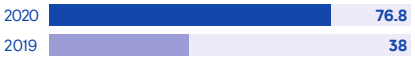
How we define it
CROIC is calculated as free cash flow divided by invested capital in the year. See page 207 for a full definition of invested capital. This measure was introduced in 2018. See page 176 for a reconciliation of underlying to reported cash flow.

Why it is important
CROIC ensures we invest in programmes and projects which optimise returns for our shareholders with the correct balance between long-term and short-term value.

Link to remuneration
A key driver of CROIC is free cash flow, which is also an important financial performance measure for our annual bonus plan and LTIP.

Non-financial performance indicators

CUSTOMER METRIC (%)



How we define it
In 2019, we introduced a new balanced scorecard of metrics for each business. The scorecard includes on-time delivery, aircraft on ground and engine availability amongst other indicators. The aggregate outturn is used to determine the customer element of our bonus plan. See page 93 for more information.

Why it is important
Customer satisfaction demonstrates whether we are meeting our commitments to our customers across our businesses. This, in turn, drives our cash and profitability.

Link to remuneration
The customer metric accounts for 12.5% of the target bonus in our annual bonus plan.

EMPLOYEE ENGAGEMENT (SCORED 1 TO 5)[4]

How we define it
In 2019, we introduced a new survey, Gallup Q12. Responses are scored on a scale of one to five. The employee engagement score averages the responses to all 12 questions in the survey. See page 42 for more information.

Why is it important
Our people are crucial to delivering future business success. This is an objective way to assess how engaged our employees are with the business and its leaders.

Link to remuneration
Employee engagement performance against our target accounts for 12.5% of our annual bonus plan.

[3] Figures for the comparative periods have been adjusted by a factor of 2.91 and restated to reflect the bonus element of the November 2020 rights issue.
[4] External assurance over the employee engagement score is provided by Bureau Veritas. See page 204 for their assurance statement.

See Other Financial Information on page 206 for additional commentary on our financial KPIs.

FINANCIAL REVIEW

We took significant and rapid actions to mitigate the financial impact of COVID-19, strengthening our liquidity and restructuring our cost base. These actions position us well to deliver improved financial returns in the future.

STEPHEN DAINTITH, CHIEF FINANCIAL OFFICER

2020 Overview

We entered 2020 with strong momentum having reported encouraging 2019 results. However, the sudden impact of COVID-19 during the first quarter resulted in an immediate and sharp deterioration of our financial performance and resulted in a re-evaluation of our expectations and targets. We responded quickly to this unprecedented crisis by undertaking a number of significant and rapid actions:

- Starting in March 2020, we took a number of proactive steps to conserve cash and delivered over £1bn of cash savings in the year. These savings were delivered through cutting non-critical capital expenditure, significantly reducing discretionary spend, reviewing and rephasing R&D and engineering spend together with role reductions and a temporary 10% salary reduction for our senior management. We prioritised strategic investment in critical programmes, with a focus on lower-carbon solutions and digitalisation.
- As part of this goal to reduce all unnecessary expenditure, we also took the decision to cease invoice factoring, a practice we have used in the past to align cash flows with the physical delivery of products to our customers. This had a one-time £1.1bn negative impact on free cash flow in 2020, evident in our first half results.
- We took actions to substantially improve liquidity and protect our balance sheet. Despite the total free cash outflow of £4.2bn in 2020, our liquidity improved to £9.0bn at the end of the year. This reflected £5.3bn of new borrowing facilities and a £2.0bn rights issue. We were well supported by the UK Government through the CCFF loan scheme in April and by the guarantee from UK Export Finance for 80% of our new £2.0bn credit facility, which was syndicated in August. There was strong appetite from investors for £2.0bn of new bonds in October and we arranged a new £1.0bn credit facility, both facilitated by the successful rights issue at the same time. We have made a good start on our disposal programme which aims to achieve at least £2.0bn of proceeds by early 2022. We have recently announced agreements to sell Civil Nuclear Instrumentation & Control and Bergen Engines, both expected to complete in 2021, and are progressing well with our plans for further disposals beyond these.
- We appreciate all the support that our stakeholders have given us in providing sufficient liquidity to weather the COVID-19 crisis. At the same time, we recognise the significant responsibility we have to secure a sustainable, profitable and cash generative future for Rolls-Royce. As a result, we launched this year the most significant restructuring in our recent history to consolidate our Civil Aerospace footprint and reduce our cost base. It was not a decision we took lightly. By the end of 2020, approximately 7,000 roles had been removed from the Group and we are well on track to achieve our target of at least a 9,000 reduction by the end of 2022.
- In addition, we reduced the size of our FX hedge book by $11.8bn, reflecting the changed market outlook for Civil Aerospace which means that we now expect lower US dollar receipts in the medium term. This reduction resulted in an underlying finance charge of £1.7bn in 2020. This charge is already accounted for in reported results, as a result of them being presented on a mark-to-market basis (see note 4 on page 133). From a risk management perspective, we firmly believe this was the right action to take.

2021 Outlook

While the near-term outlook for Civil Aerospace remains uncertain and highly sensitive to the developments of the COVID-19 pandemic, we have the benefit of a broad and diverse portfolio, with Defence expected to remain resilient and Power Systems benefitting from its shorter-cycle industrial end market exposure.

We expect free cash outflow in the region of £(2.0)bn in 2021, based on engine flying hours recovering to around 55% of 2019 levels. The cash outflow is expected to be weighted towards the first half of the year and we expect to turn cash flow positive at some point during the second half. We aim to achieve positive free cash flow of at least £750m (excluding disposals) as early as 2022. This is based on engine flying hours exceeding 80% of 2019 levels. However, the exact timing and outturn of turning cash flow positive is dependent on the shape and timing of engine flying hours recovery along with the pace of delivery of our fundamental restructuring programme.

As you know, I am leaving Rolls-Royce in March 2021 after four lively, often challenging, yet hugely rewarding and enjoyable years. I look back on the good progress we had been making before the impact of COVID-19 and am confident that, following completion of our fundamental restructuring programme, the Group will once again be well positioned to return to delivering much improved financial returns in the future.

DEFINING OUR ALTERNATIVE PERFORMANCE MEASURES

Business performance is reviewed and managed on an underlying basis. These alternative performance measures reflect the economic substance of trading in the year, including the impact of the Group's foreign exchange activities.

The tables below and to the right summarise the adjustments between reported and underlying results for cash flow, revenue, and operating profit.

For more information on the reconciliation to statutory measures for:
i. free cash flow, see note 29 on page 176; and
ii. revenue and operating profit, see note 2 on page 126.

Cash flow

£m	2020	2019
Reported measure		
Reported cash flow	**(995)**	(413)
Underlying performance measure		
Reported cash flow	**(995)**	(413)
Net cash flow from changes in short-term investments, borrowings & lease liabilities	**(1,636)**	1,385
Movement in net funds from cash flows	**(2,631)**	972
Exclude: Capital element of lease payments	**(284)**	(271)
Movement in net funds excluding lease liabilities	**(2,915)**	701
Rights issue	**(1,972)**	–
Payments to shareholders	**92**	224
Business acquisitions & disposals	**119**	(409)
Penalties paid on agreements with investigating bodies	**135**	102
Restructuring exceptional cash flow	**323**	216
Other underlying adjustments	**33**	39
Free cash flow	**(4,185)**	873

Revenue

£m	2020	2019
Reported measure		
Reported revenue	**11,824**	16,587
Underlying performance measure		
Reported revenue	**11,824**	16,587
Derivative & FX adjustments	**(61)**	(1,137)
Underlying revenue	**11,763**	15,450

(Loss)/profit

£m	2020	2019
Reported measure		
Reported operating (loss)	**(2,081)**	(852)
Underlying performance measure		
Reported operating (loss)	**(2,081)**	(852)
Derivative & FX adjustments	**(1,006)**	(144)
Programme exceptional charges	**(620)**	1,409
Restructuring exceptional charges	**489**	136
Acquisition accounting	**133**	163
Impairments & asset write-offs	**1,417**	84
Pension past-service credit	**(308)**	–
Other underlying adjustments	**4**	12
Underlying operating (loss)/profit	**(1,972)**	808

GROUP TRADING SUMMARY

The commentary and income statement below describe underlying performance, with percentage and absolute change figures presented on an organic basis, unless otherwise stated.

Summary income statement

£m	2020	2019	Change[2]	Organic[1] change
Underlying revenue	**11,763**	**15,450**	**(3,687)**	**(3,582)**
Underlying OE revenue	5,887	7,456	(1,569)	(1,593)
Underlying services revenue	5,876	7,994	(2,118)	(1,989)
Underlying gross (loss)/profit	**(512)**	**2,387**	**(2,899)**	**(2,872)**
Gross margin %	(4.4)%	15.4%	(19.8)%pt	(19.9)%pt
Commercial and administration costs	(904)	(993)	89	63
Research and development costs	(735)	(696)	(39)	(43)
Joint ventures and associates	179	110	69	70
Underlying operating (loss)/profit	**(1,972)**	**808**	**(2,780)**	**(2,782)**
Underlying operating margin	**(16.8)%**	**5.2%**	**(22.0)%pt**	**(22.2)%pt**
Financing costs	(1,986)	(225)	(1,761)	(1,763)
Underlying (loss)/profit before taxation	**(3,958)**	**583**	**(4,541)**	**(4,545)**
Taxation	(39)	(277)	238	236
Underlying (loss)/profit for the period	**(3,997)**	**306**	**(4,303)**	**(4,309)**
Underlying (loss)/earnings per share[3] (p)	**(66.78)**	**5.44**	**(72.22)**	**(72.25)**

[1] Organic change at constant translational currency (constant currency) by applying 2019 average rates to 2020 numbers, and excluding M&A. All commentary is provided on an organic basis unless otherwise stated.
[2] The impact of M&A was £147m on revenue and £6m on underlying operating loss.
[3] 2019 earnings per share has been adjusted to reflect the 2.91 bonus element of the rights issue.

Note: 2019 transactions were translated at an achieved rate of £$1.53, close to the average rate of our hedge book, whereas 2020 transactions were translated at £$1.24 in the first half and £$1.33 in the second half, due to not being able to utilise our hedge book in 2020.

Underlying revenue

Organic change of £(3.6)bn (23)% reflected a significant fall in both OE and services revenue largely due to the impact of COVID-19 on end-market demand. Civil Aerospace was the most impacted, down £(3.0)bn (37%) including £(1,061)m of COVID-related negative LTSA catch-ups. Power Systems was down £(530)m (17%) mostly due to lower OE revenue and ITP Aero was £(240)m lower (26%) with a reduction in OE partly offset by a small increase in services. Defence revenue increased by £125m (4%), showing continuity of demand from government customers and effective measures to minimise operational disruption from COVID-19.

Underlying gross loss

The loss of £(512)m was predominantly driven by a £(2.0)bn loss in Civil Aerospace (including £(1.3)bn of COVID-related charges), partly offset by savings from role reductions and cost mitigations. Power Systems, Defence and ITP Aero all contributed positively, with Defence achieving an increase on the prior year.

Commercial and administration costs

Reduced by £63m, reflecting some of the savings from the Group-wide focus on cost mitigations in response to COVID-19.

Research and development costs

An increase of £43m reflected lower capitalisation due to the maturity of key aero engine programmes, partly offset by a reduction in expenditure due to our cost mitigation efforts to re-phase non-critical spending.

Underlying operating loss

The loss of £(2.0)bn reflected the gross loss and a higher R&D charge, partly offset by higher profit from joint ventures and associates and a reduction in C&A costs.

Financing costs

Costs of £(2.0)bn included a one-off underlying finance charge of £(1.7)bn, mostly taken in the first half, to reduce the size of our USD hedge book by $11.8bn in response to a lower medium-term outlook for US$ cash receipts following COVID-19.

Taxation

The £(39)m tax charge (2019: £(277)m) reflected the tax on overseas profits together with the fact that we have not recognised any deferred tax on UK losses arising in 2020. In addition, £(51)m of the deferred tax previously recognised on UK losses was derecognised.

GROUP REPORTED RESULTS

Consistent with past practice, 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 period-end mark-to-market adjustments. In particular, the USD:GBP hedge book has a significant impact on the reported results. In 2020, the USD:GBP spot rate moved from 1.32 to 1.36 while the EUR:GBP rate moved from 1.18 to 1.11.

Underlying performance also excludes the effect of acquisition accounting and business disposals, impairment of goodwill and other non-current and current assets, and exceptional items. These are included in arriving at reported results. The adjustments between the underlying income statement and the reported income statement are set out in Note 2 to the Consolidated Financial Statements. This basis of presentation has been applied consistently.

Reconciliation between underlying and reported results

£m Year to 31 December		Revenue		(Loss)/profit before financing and tax		Net financing	
		2020	2019	**2020**	2019	**2020**	2019
	Underlying	**11,763**	15,450	**(1,972)**	808	**(1,986)**	(225)
1	Impact of settled derivative contracts on trading transactions	**61**	1,137	**998**	145	**(324)**	80
2	Unrealised fair value changes on derivative contracts held for trading	**–**	–	**8**	(1)	**(85)**	(6)
3	Unrealised net losses on closing future over-hedged position	**–**	–	**–**	–	**1,503**	–
4	Realised net losses on closing over-hedged position	**–**	–	**–**	–	**202**	–
5	Unrealised fair value change to derivative contracts held for financing	**–**	–	**–**	–	**(86)**	1
6	Exceptional programme credits/(charges)	**–**	–	**620**	(1,409)	**(36)**	–
7	Impact of discount rate changes	**–**	–	**–**	–	**3**	(40)
8	Exceptional restructuring charge	**–**	–	**(489)**	(136)	**–**	–
9	Impairments	**–**	–	**(1,293)**	(84)	**–**	–
10	Other write-offs	**–**	–	**(124)**	–	**–**	–
11	Effect of acquisition accounting	**–**	–	**(133)**	(163)	**–**	(8)
12	Pension past-service credit	**–**	–	**308**	–	**–**	–
	Other	**–**	–	**(4)**	(12)	**(6)**	20
13	Gains/(loss) arising on the acquisitions and disposals of businesses	**–**	–	**(14)**	139	**–**	–
	Total underlying adjustments	**61**	**1,137**	**(123)**	**(1,521)**	**1,171**	**47**
	Reported	**11,824**	**16,587**	**(2,095)**	**(713)**	**(815)**	**(178)**

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 and the impact of valuation of assets and liabilities using the period end exchange rate rather than the achieved rate or the exchange rate that is expected to be achieved by the use of the hedge book increased reported revenues by £61m (2019: £1,137m) and reduced loss before financing and taxation by £998m (2019: increased profit by £145m). Underlying financing excludes the impact of revaluing monetary assets and liabilities at the period end exchange rate.
2. The underlying results exclude the fair value changes on derivative contracts held for trading. These fair value changes are subsequently recognised in the underlying results when the contracts are settled.
3. In response to the deterioration in the medium-term outlook caused by COVID-19 and the related reduction in anticipated net US dollar cash inflows, the Group has taken action to reduce the size of the US dollar hedge book by $11.8bn predominately by transacting offsetting foreign exchange forward contracts across 2020-2026, resulting in a £1,689m charge to underlying results. The £1,503m included in unrealised loss (shown above) is the net cost of closing out the over-hedged position in future years. The cost related to future years has been included within the underlying performance. It is reversed in arriving at reported performance on the basis that, the cumulative fair value changes on these derivative contracts are recognised as they arise.
4. In 2020, the Group incurred a cash outflow of £186m as a result of closing out $1.2bn of the $11.8bn hedge book reduction and a cash outflow of £16m to settle an over-hedged jet fuel position. The realised loss of £202m is included in underlying financing costs.
5. Includes the losses on hedge ineffectiveness in the year of £11m (2019: losses £13m) and net fair value losses of £75m (2019: profit £14m) on any interest rate swaps not designated into hedging relationships for accounting purposes.
6. In 2019, abnormal wastage costs were recorded in respect of the Trent 1000, related to remediation shop visit costs, customer disruption costs and contract losses. During the year, the total estimated Trent 1000 abnormal wastage costs have reduced by £620m as a result of COVID-19 made up of £390m (a gross provision release of £560m, offset by the impact of expected actual exchange rates and the share of the costs borne by RRSAs) related to remediation shop visit costs and customer disruption costs and an improvement of £230m in the position on contract losses.
7. Discount rates have increased on exceptional contract loss provisions in relation to the Trent 900 and Trent 1000.

8. At 31 December 2020, the Group recorded an exceptional restructuring charge of £489m following the announcement on 20 May 2020 to reshape and resize the Group due to the financial and operational impact of COVID-19 (see note 22 for more detail).
9. The Group has assessed the carrying value of its assets given the financial and operational impact of COVID-19 on the Group's future cash flow forecasts. Consequently, a number of impairments and write-offs have been recorded at 31 December 2020. Impairments comprise: intangible assets £567m, mainly related to programme intangibles; property, plant and equipment £318m (including £219m related to site rationalisation); right-of-use assets £384m, comprising engines of £311m, £69m of site rationalisation and £4m of other impairments; and a £24m impairment on the carrying value of investments held.
10. Other write-offs include £149m of participation fees in contract assets, £2m in provisions for site rationalisation, offset by £(27)m for RRSA deferred cost contributions in payables. These write-offs are primarily a result of the impact of COVID-19.
11. The effect of acquisition accounting includes the amortisation of intangible assets arising on previous acquisitions.
12. The Group recorded a past service gain of £308m (of which £248m was recorded at 30 June 2020) following changes to the pension benefits under the terms of the Rolls-Royce UK Pension Fund (RRUKPF), a defined benefit scheme. In respect of the £248m gain recorded at 30 June 2020, £127m was subsequently recognised as actuarial losses through other comprehensive income at 31 December 2020 – see note 2 and 23.
13. Gains/(losses) arising on the acquisitions and disposals of businesses includes the acquisition of Qinous GmbH (increasing the Group's shareholding from 24% to 100%), the sale of the North America Civil Nuclear business, the sale of the Knowledge Management Systems business and the sale of Trigno Energy Srl.

Tax affecting these adjustments resulted in a tax charge of £(220)m (2019: £(143)m). The charges in 2020 and 2019 are mainly due to the non-recognition of deferred tax on UK losses arising in those years. The charge in 2020 includes a tax credit of £160m in respect of the change in the UK tax rate and a tax charge of £(276)m relating to the derecognition of some of the deferred tax asset on UK losses previously recognised. The 2019 charge included £(86)m relating to the derecognition of UK deferred tax assets on foreign exchange and commodity financial assets and liabilities.

GROUP FUNDS FLOW

Summary funds flow statement[1]

	Full-year to 31 December		
£m	**2020**	2019	Change
Underlying operating (loss)/profit	**(1,972)**	808	(2,780)
Depreciation, amortisation and impairment	**951**	1,068	(117)
Lease payments (capital plus interest)	**(379)**	(319)	(60)
Expenditure on intangible assets	**(316)**	(591)	275
Capital expenditure (PPE)	**(579)**	(747)	168
Change in inventory	**588**	(43)	631
Movement in receivables/payables/contract balances (excluding Civil LTSA)	**(2,207)**	492	(2,699)
Civil Aerospace net LTSA balance change	**479**	754	(275)
Of which: underlying change	***(582)***	*654*	*(1,236)*
Of which: impact of contract catch-ups	***1,061***	*100*	*961*
Movement on provisions	**(195)**	(506)	311
Cash flows on settlement of excess derivative contracts	**(202)**	–	(202)
Fees on undrawn facilities	**(97)**	–	(97)
Net interest received and paid	**(75)**	(73)	(2)
Trent 1000 insurance receipt	**–**	173	(173)
Other	**(110)**	41	(151)
Trading cash flow	**(4,114)**	1,057	(5,171)
Contributions to defined benefit pensions in excess of underlying PBT charge	**160**	(9)	169
Taxation paid	**(231)**	(175)	(56)
Group free cash flow	**(4,185)**	873	(5,058)
Shareholder payments	**(92)**	(224)	132
Rights Issue	**1,972**	–	1,972
Disposals and acquisitions	**(119)**	409	(528)
Exceptional Group restructuring	**(323)**	(216)	(107)
Payment of financial penalties	**(135)**	(102)	(33)
Other underlying adjustments	**(33)**	(39)	6
Movements in net funds from cash flows (excluding lease liabilities)	**(2,915)**	**701**	**(3,616)**
Capital element of lease repayments	**284**	271	13
Movements in net funds from cash flows	**(2,631)**	**972**	**(3,603)**
Movement in short-term investments	**6**	–	6
Net cash flow from changes in borrowings and lease liabilities	**1,630**	(1,385)	3,015
Reported cash flow	**(995)**	(413)	(582)

[1] The derivation of the summary funds flow statement above from the reported cash flow statement is included on page 176.

Free cash flow
Group free cash outflow of £(4,185)m deteriorated from a £873m inflow in 2019. The key drivers of this outflow were significantly lower engine flying hour receipts as global travel dramatically declined and working capital outflows, including the decision to cease invoice discounting, as our OE and aftermarket volumes declined. Trent 1000 in-services cash costs were £(524)m (2019: £(578)m).

Key changes in the funds flow items are described below:

Depreciation, amortisation and impairments
The decrease of £(117)m was largely driven by lower overall additions across intangible assets and property, plant and equipment as a result of management actions to reduce cash expenditure and a £102m adjustment to residual value guarantees which is non-cash and increased underlying operating profit.

Lease payments (capital plus interest)
Lease payments were higher than prior year largely due to changes in FX achieved rates used to convert US dollar lease payments into GBP.

Additions of intangible assets
Expenditure included £(232)m capitalised R&D (2019: £481m), lower than 2019 due to completion of capitalisation of the Trent 1000 and Pearl 15 engine R&D, reflecting the maturity of these programmes, and no further capitalisation on the Pearl 700 programme.

Purchases of property, plant and equipment
Investment was lower than 2019 primarily as a result of management actions to reduce cash costs to mitigate the impact of COVID-19.

Decrease in inventory
The £588m decrease in 2020 (2019: £(43)m increase) was led by COVID-19 driven demand reductions as well as significant improvement measures delivered in Civil Aerospace, partly offset by certain actions to safeguard necessary parts supply in 2021.

Movement in receivables/payables/contract balances (excluding Civil Aerospace LTSA)
The £(2,207)m movement in 2020 reflected:

- £0.4bn increase in receivables reflecting the decision to cease invoice discounting (£(1.1)bn increase), partly offset by significantly lower trading activity especially in Civil Aerospace.
- £1.8bn reduction in payables reflecting lower amounts owed to suppliers, JVs and Risk and Revenue Share Partners (RRSPs) due to COVID-19 led demand reductions. In addition, reduction in OE deposits reflecting utilisation in Civil Aerospace. This was partly offset by new deposits in Defence and an increase in the Civil Aerospace OE engine concessions payable, due to aircraft delivery delays and associated concession payment deferrals.

Movement in underlying Civil Aerospace net LTSA balance
The LTSA net balance increased by £479m. There was a significant reduction in widebody and regional invoiced engine flying hour receipts during 2020 due to lower flying activity, resulting in a £(582)m underlying reduction to the net LTSA balance as revenues traded exceeded invoiced flying hour receipts. However, this was more than offset by the impact of £1,061m of contract catch-ups, principally driven by a forecast reduction in engine flying hour receipts due to the COVID-19 pandemic, which reduced revenue recognised during the year.

Movement on provisions
The £(195)m movement reflected a decrease in the provision balance driven by Trent 1000 provision utilisation during the period partly offset by new provisions charges (details on page 163), largely as a result of COVID-19 which include the impact from the up-front recognition of future losses on a small number of loss-making Civil Aerospace contracts.

Interest
The net payment of £(75)m in 2020 was £2m higher than prior year, reflecting movements in the overall total amount of debt and interest rates. £5.3bn of additional debt was raised during 2020. At 31 December 2020, £5.5bn of total debt was undrawn.

Contributions to defined benefit pensions
Cash contributions were £160m lower than the charge on the income statement (2019: £9m higher). The £169m year-on-year movement reflected early payment in 2019 of contributions due in 2020 and deferral of certain 2020 contributions into 2021.

Taxation
The cash tax payments in 2020 were £(231)m compared to £(175)m in 2019. The increase reflected higher payments in Germany, largely due to timing.

Payments to shareholders
The £(92)m interim dividend was announced in August 2019 and paid in January 2020. Reflecting the Group's financial priorities and the challenging macro environment, the Board did not recommend a final dividend in respect of 2019.

Rights issue
In November 2020, a 10:3 rights issue raised net proceeds of £1,972m.

Acquisitions and disposals
Net costs of £(119)m included the acquisitions of Qinous, Kinolt and Servowatch; offset by disposal proceeds related to Civil Nuclear North America, Knowledge Management Systems, Trigno, Exostar and a L'Orange earn-out adjustment and M&A costs.

Exceptional Group restructuring
Payments of £(323)m relating to the 2020 fundamental restructuring programme were made in 2020, of which £55m related to restructuring capital expenditure.

Payment of financial penalties
The penultimate payment of £(135)m relating to the deferred prosecution agreement (DPA) was made in January 2020.

Other underlying adjustments
Outflow of £(33)m includes timing of cash flows on a prior period disposal where the Group retains the responsibility for collecting cash before passing it on to the acquirer.

Net cash flow from changes in borrowings (excluding lease liabilities)
During the year, the Group issued £1,972m ($1,000m, €750m and £545m) of bond notes as well as £300m of commercial paper under the Covid Corporate Financing Facility. The Group also repaid a maturing $500m (£328m) bond.

BALANCE SHEET

£m	31 Dec 2020	31 Dec 2019 adj HfS[3]	31 Dec 2019 as reported	Change adj HfS[3]
Intangible assets	5,145	5,431	5,442	(286)
Property, plant and equipment	4,515	4,798	4,803	(283)
Right-of-use assets	1,405	2,001	2,009	(596)
Joint ventures and associates	394	402	402	(8)
Contract assets and liabilities	(8,922)	(8,736)	(8,745)	(186)
Working capital[1]	570	(1,243)	(1,136)	1,813
Provisions	(1,945)	(2,780)	(2,804)	835
Net debt[2]	(3,627)	(1,020)	(993)	(2,607)
Net financial assets and liabilities[2]	(3,111)	(3,275)	(3,277)	164
Net post-retirement scheme surpluses/(deficits)	(673)	(199)	(208)	(474)
Tax	1,295	1,130	1,136	165
Held for sale	60	123	3	(63)
Other net assets	19	14	14	5
Net liabilities	**(4,875)**	**(3,354)**	**(3,354)**	**(1,521)**
Other items				
US$ hedge book (US$bn)	25	37	37	(12)
Civil LTSA asset	726	1,086	1,086	(360)
Civil LTSA liability	(6,841)	(6,784)	(6,784)	(57)
Civil net LTSA liability	(6,115)	(5,698)	(5,698)	(417)

[1] Net working capital includes inventory, trade receivables and payables and similar assets and liabilities.
[2] Net debt includes £251m (2019: £243m) of the fair value of financial instruments held to hedge the fair value of borrowings.
[3] 2019 adjusted for assets held for sale (HfS) (Bergen Engines AS and Civil Nuclear Instrumentation and Control business) to aid comparability.

Key drivers of balance sheet movements (adjusted for assets held for sale) were:

Intangible assets
Net decrease of £(286)m included impairments of £(579)m, mostly related to the impact of COVID-19. Additions of £364m primarily related to programme development in Civil Aerospace and investment in software applications. Acquisitions of Kinolt Group, Qinous GmbH and Servowatch Systems added £137m. There was a £137m FX impact and amortisation was £(323)m.

Property, plant and equipment
Net decrease of £(283)m included impairments of £(332)m and depreciation of £(489)m partly offset by £38m FX impact and additions of £553m. The additions were lower than the prior year as spending was limited to critical infrastructure projects.

Right-of-use assets
Net reduction of £(596)m was driven by impairments of £(386)m, primarily of lease engines in Civil Aerospace and land and buildings as part of our footprint consolidation. The depreciation charge was £(346)m. Additions were £135m, £92m lower than the prior year.

Contract assets and liabilities
The net liability balance increased by £(186)m, of which £(417)m related to the Civil Aerospace LTSA balance and included foreign exchange of £62m and negative LTSA catch-ups of £(1,061)m. The remainder largely covered reduction in deposits in Civil Aerospace partly offset by new deposits in Defence.

Working capital
The £570m net current asset position reflected a £1.8bn change on the prior year.

- Receivables increased by £0.4bn as a £1.1bn reduction in invoice discounting was partly offset by lower trading activity in Civil Aerospace.
- Payables reduced by £1.8bn primarily due to COVID-19 led demand reductions and comparatively stronger Q4 2019 trading activity.
- Inventory reduced by £0.5bn largely due to COVID-19 led demand reductions and parts rescheduling in Civil Aerospace partly offset by growth in Defence to protect 2021 deliveries and support the supply chain.
- The movement also included a financial penalty payment of £135m related to agreements reached with investigating authorities in January 2017.

Provisions
The £835m decrease reflected net restructuring charges of £(373)m, of which £206m was utilised in 2020 and Trent 1000 provisions utilisation and release of £541m and £560m respectively.

Net debt
Increased to £(3.6)bn (including lease liabilities) primarily driven by free cash outflow of £(4.2)bn partly offset by £2.0bn of rights issue proceeds.

Net financial assets and liabilities
The £164m change was primarily driven by the utilisation of derivatives of £246m partially offset by the fair value movement in currency exchange rates and other derivatives.

Net post-retirement scheme surpluses/deficits
The £(474)m movement was driven by reduction in the UK surplus reflecting changes to members' benefits as part of restructuring the UK pension, closure of the scheme and deferral of company contributions. There have also been changes in financial and demographic assumptions across both the UK and overseas schemes. See note 23.

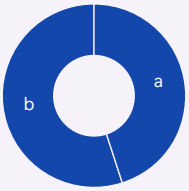
US$ hedge book
Due to the impact of COVID-19 on Civil Aerospace our forecast future US$ receipts reduced significantly. As a result, we took the necessary decision to reduce the size of our hedge book by $11.8bn to $25bn. Our US$ hedge book runs to 2028. The total cost of closing out the over-hedged position is £(1.7)bn, of which £(186)m was incurred in 2020. The remainder of the cash outflow will be incurred over the next six years.

CIVIL AEROSPACE

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

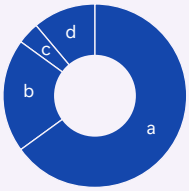
UNDERLYING REVENUE	UNDERLYING (LOSS)/PROFIT	ORDER BACKLOG
£5,089m	**£(2,574)m**	**£42.4bn**
2019: £8,107m	2019: £44m	2019: £48.5bn

UNDERLYING REVENUE MIX



a. OE	**45%**
b. Services	**55%**

UNDERLYING REVENUE MIX BY SECTOR



a. Large Engines	**65%**
b. Business Aviation	**20%**
c. Regional	**4%**
d. V2500	**11%**

Overview of 2020

Civil Aerospace was heavily impacted by COVID-19 in 2020. Large engine deliveries fell by 48% to 264 and large engine flying hours fell to 43% of 2019 levels as travel restrictions limited air traffic. Business aviation was less severely impacted, with engine deliveries down 16%. In response to the market impact, we have undertaken a fundamental restructuring of Civil Aerospace, which will substantially reduce our fixed cost base and position the business to deliver healthy profits and cash generation as the market recovers.

£m	**2020**	2019	Change	Organic change
Underlying revenue	**5,089**	**8,107**	**(37)%**	**(37)%**
Underlying OE revenue	2,298	3,246	(29)%	(29)%
Underlying services revenue	2,791	4,861	(43)%	(43)%
Underlying gross (loss)/profit	**(2,005)**	**622**	**(422)%**	**(422)%**
Gross margin %	(39.4)%	7.7%	(47.1)%pt	(47.1)%pt
Commercial and administration costs	(302)	(306)	(1)%	(2)%
Research and development costs	(436)	(374)	17%	16%
Joint ventures and associates	169	102	66%	66%
Underlying operating (loss)/profit	**(2,574)**	**44**	**(2,618)**	**(2,612)**
Underlying operating margin %	(50.6)%	0.5%	(51.1)%pt	(51.0)%pt

Key operational metrics

	2020	2019	Change
Large engine deliveries	264	510	(48)%
Business jet engine deliveries	184	219	(16)%
Total engine deliveries	**448**	**729**	**(39)%**
Large engine LTSA flying hours	**6.6m**	**15.3m**	**(57)%**
Large engine LTSA major refurbs	272	306	(11)%
Large engine LTSA check & repairs	559	660	(15)%
Total large engine LTSA shop visits	**831**	**966**	**(14)%**

Financial overview

- Production cuts from airframer customers resulted in substantially fewer large engine deliveries in 2020. Business jet deliveries were resilient in the first half of the year but reduced during the second half as the airframers adjusted to the impact on demand from COVID-19.
- Large engine LTSA flying hours were 43% of 2019 level. Flying hour performance was significantly more robust in newer engine programmes than more mature types.
- Business aviation LTSA engine flying hours were resilient, however there was a significant reduction in both regional and V2500 flying hours.
- Large engine LTSA major service visits were 11% lower than prior year, particularly in the second half of the year when we saw a substantial reduction in activity.
- Roles reduced by approximately 5,500 (20%), with most of the departures taking place in the second half of 2020 as a result of the fundamental restructuring programme.
- Agreement reached with Airbus to extend Trent XWB-84 exclusive position on A350-900 to 2030.
- Underlying revenue reduced by 37% to £5.1bn (2019: £8.1bn). This decline was driven by the reduction in engine delivery volumes, particularly for large engines, lower aftermarket revenues reflecting fall in shop visit volumes, and included a £(1.1)bn impact from negative LTSA contract catch-ups.
- Underlying gross loss of £(2.0)bn, £(2.6)bn lower than 2019. This reflected:
  - £(1.3)bn of largely COVID-related one-time charges:
    - LTSA catch-ups: £(974)m impact to profit from negative LTSA catch-ups, mainly driven by a forecast reduction in engine flying hour receipts as a result of COVID-19 and principally impacting mature engine programmes;
    - up-front recognition of future losses: primarily due to COVID-19 certain contracts have either become loss-making or have seen an increase in expected losses, driving a £(213)m charge; and
    - £(86)m charge reflecting specific customer provisions due to the impact of COVID-19 on the civil aviation industry and our customers' financial positions.
  - A material reduction in trading performance, primarily reflecting the impact of COVID-19:
    - a substantial reduction in large engine aftermarket, driven by lower shop visit volumes, adverse margin mix on LTSA shop visits, and reduced time & materials (T&M) profits;
    - lower OE profits from business aviation and reduced volumes of large spare engine sales, which offset the benefit from lower installed widebody engine volumes; and
    - a material impact in 2020 from under-recovery of fixed costs.
- Commercial and administration costs were relatively unchanged year-over-year, with cost reduction actions delivered in the year reflected more heavily in cost of sales and R&D spend.
- Research and development costs of £(436)m reflected a significant reduction in capitalisation during the period due to the maturity of key aero engine programmes partly offset by a reduction in expenditure due to the reducing investment burden on our new engine programmes and the rephasing of some R&D spending in light of COVID-19. Spending continued to shift towards next generation gas turbine technology and low carbon solutions such as electric and hybrid-electric aircraft.
- Underlying operating loss of £(2.6)bn reflected the fall in gross profit and slightly higher R&D charge, partly offset by an increase in profits from joint ventures and associates.
- Trading cash flow was a £(4.6)bn outflow during the year (2019: £419m inflow). This deterioration was driven by significantly lower engine flying hour receipts as well as a material working capital outflow, including the one-time impact from the cessation of invoice factoring in 2020.
- Trent 1000 and Trent XWB update: During 2020 in-service cash costs on Trent 1000 were in line with guidance at £(524)m and in June we reached our goal of zero aircraft on ground (AoG) due to the durability issues. There was a £620m exceptional credit reflecting a £390m net improvement in the outlook for future in-service cash costs, alongside a £230m improvement in expected future losses on our small number of loss-making contracts primarily due to the impact of COVID-19 on flying activity. Early identification and action regarding durability issues on the Trent XWB announced in August 2020 did not result in any grounded aircraft and it was not necessary to provide for any material additional costs in the year.

Operational and strategic review

The aviation industry was severely affected by the COVID-19 pandemic and the travel restrictions put in place by governments around the world in response.

After more than a decade of growth, commercial air traffic fell by 66% during 2020. While there was a gradual recovery, it was slower than expected and largely halted in December due to the impact of the second wave of COVID-19 across much of the world. Throughout the year, we worked tirelessly to ensure that our airline customers could continue to use their Trent engines – utilising new remote inspection techniques in order to abide with national restrictions on movement or working practices – or store them properly so they can be readily put back into service when restrictions ease.

Our airline customers also adopted various mitigating measures in 2020, including postponing investment in new aircraft. This led to a material reduction in large commercial aircraft production from both major airframers, Boeing and Airbus.

While business jet demand was more robust than widebody, it was not immune from the effects of the pandemic and travel restrictions. During 2020, we delivered the 8,000th engine from our site in Dahlewitz, Germany, and our BR725 engine, which powers Gulfstream's G650 business aircraft family, achieved one million flying hours.

The effects of COVID-19 are expected to be felt in our markets for a number of years. To respond to the new medium-term outlook and return the business to profitability, we launched a fundamental restructuring of our Civil Aerospace business. The programme includes:

- a significant reduction in Civil Aerospace headcount, representing a majority of the 9,000 roles to be removed across the Group by the end of 2022. This has been progressed at pace, with over 5,500 roles removed from Civil Aerospace during 2020, primarily through voluntary severance;
- a major footprint review to reduce fixed costs. This comprises a reduction from three widebody assembly and test facilities to one, as well as consolidating production facilities across a number of widebody components; and
- linked to this footprint review, we have announced plans to enhance the scope of ITP Aero. This involves the transfer of our engine structures activities in Barnoldswick, UK, into ITP Aero, as well as the transfer of our site and workforce in Hucknall, UK, which manufactures a range of aero-engine parts. These changes will deliver cost reductions for Civil Aerospace and increase the value of ITP Aero.

Outside our response to COVID-19, excellent progress was made during 2020 in resolving the Trent 1000 in-service issues. Partially aided by the lower aircraft utilisation due to the pandemic, we were able to meet our target to reduce the number of aircraft on ground to single-digits by mid-year, subsequently reaching zero. We now have a buffer of available engines to safeguard against any risk of future disruption.

Despite the COVID-19 pandemic, construction work on Testbed 80, the world's largest testbed, was completed during the year and in early 2021 we conducted our first test run on a Trent XWB engine.

Longer term, we continue to position ourselves for the transition to a low carbon future for commercial aviation. Our next generation gas turbine, UltraFan, will progress to final assembly in 2021. The parts for our first engine demonstrator went into production in 2020 including the power gearbox, fan blades and fan case.

In November, we undertook successful ground tests using 100% sustainable aviation fuel (SAF) for the first time in a Trent 1000 engine, with additional tests planned in 2021 using our Pearl 700 business jet engine. These tests aim to demonstrate that our engines can operate with 100% SAF as a 'drop-in' alternative to conventional jet fuel. This exceeds current certification requirements which limit SAF to a 50% blend. We believe SAF represents a vital solution to the challenge of decarbonising long-haul travel.

At the smaller end of the market, electric and hybrid-electric technologies are set to power a new generation of fixed-wing and vertical take-off aircraft, providing an opportunity for us to disrupt a new market. In the small propeller category, our first prototype of an electric propulsion unit to serve small propeller aircraft with two to four seats, the RRP70, gained an agreed certification plan with EASA; and in the commuter market we announced plans to work with leading general aviation manufacturers, Tecnam, to jointly develop an all-electric 11-seater aircraft. In the urban air mobility space, we provided the propulsion system for the CityAirbus demonstrator which successfully completed its flight test programme in 2020. Finally, work on our ACCEL all-electric aircraft programme continued in 2020 as we completed ground testing of the technology that will power what we hope will be the world's fastest all-electric plane, with a record breaking attempt planned for 2021.

Civil Aerospace outlook

The near-term environment for Civil Aerospace remains highly uncertain. We continue to plan for a range of recovery scenarios, including the risk of further setbacks to the recovery in air travel caused by new strains of the COVID-19 virus. However, our central assumption is for a gradual market recovery in 2021, with a slow start to the year but accelerating in the second half as global vaccine roll-outs progress and travel restrictions ease.

We anticipate large engine flying hours of approximately 55% of 2019 levels in 2021 (2020: 43%), with a strong second-half weighting as the recovery accelerates, and approximately 80% of 2019 levels in 2022. Engine deliveries will remain low with 200 to 250 large engines and 100 to 150 business jet engine deliveries planned for 2021.

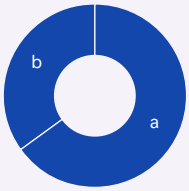
Our severe but plausible downside scenario assumes approximately 45% EFH in 2021 and 70% in 2022, both compared to the 2019 level. More details can be found on pages 52 to 54.

POWER SYSTEMS

Power Systems is a leading provider of high-speed reciprocating engines and complete propulsion and power generation systems. It serves the marine, defence, power generation and industrial markets.

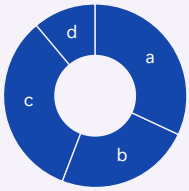
UNDERLYING REVENUE	UNDERLYING OPERATING PROFIT	ORDER BACKLOG
£2,745m	**£178m**	**£2.4bn**
2019: £3,184m	2019: £367m	2019: £2.4bn

UNDERLYING REVENUE MIX



a. OE **65%**
b. Services **35%**

UNDERLYING REVENUE MIX BY SECTOR



a. Marine **32%**
b. Industrial **24%**
c. Power Generation **33%**
d. Defence **11%**

Overview of 2020

Power Systems saw a varied impact from COVID-19, with significant reductions to industrial activities due to the weak economic environment but greater resilience in other areas, notably governmental marine. Despite COVID-19, we made significant progress against our medium-term strategy during 2020, expanding our power generation product portfolio, growing sales in China, and expanding our gas and low carbon offerings. While near-term conditions remain challenging, we believe Power Systems is positioned to recover relatively quickly when the macroenvironment improves.

£m	**2020**	2019[1]	Change[2]	Organic change
Underlying revenue	**2,745**	**3,184**	**(14)%**	**(17)%**
Underlying OE revenue	1,794	2,183	(18)%	(21)%
Underlying services revenue	951	1,001	(5)%	(6)%
Underlying gross profit	**681**	**878**	**(22)%**	**(25)%**
Gross margin %	24.8%	27.6%	(2.8)%pt	(2.7)%pt
Commercial and administration costs	(337)	(343)	(2)%	(6)%
Research and development costs	(167)	(166)	1%	(2)%
Joint ventures and associates	1	(2)	–	–
Underlying operating profit	**178**	**367**	**(51)%**	**(52)%**
Underlying operating margin %	6.5%	11.5%	(5.0)%pt	(4.9)%pt

[1] The underlying results for 2019 have been restated to reclassify Bergen Engines AS and the Civil Nuclear Instrumentation and Control business as non-core.
[2] The impact of M&A was £55m on revenue and £nil on underlying operating profit.

Financial overview

- Order intake of £2.7bn was 17% lower year-on-year, a book-to-bill of 1.0x during 2020. Commercial marine was impacted by lower tourism and yacht production facility closures, while economic uncertainty led to a deferral of capital spending across power generation and industrial customers. However, there were signs of recovery in order intake in the second half and the underlying demand in key areas including mission-critical back-up generation remained strong.
- Underlying revenue reduced by 17% to £2,745m. This reflected a fall in industrial and power generation revenues, with marine relatively stable due to strong governmental demand. OE revenue was down 21% while Services were more resilient, down just 6%.
- Underlying gross profit of £681m was 25% lower year-over-year. This reflects the lower sales, reduced factory utilisation, and an adverse mix effect due to the sharper fall in high-margin aftermarket spare parts.
- Commercial and administration costs fell 6% to £(337)m primarily reflecting management actions to mitigate costs.
- Research and development costs of £(167)m were focused on the investment in lower carbon areas across our portfolio. This includes our expanding gas engine family, electric and hybrid-electric solutions (supported by the acquisition of battery storage company Qinous), and hydrogen solutions, such as our new co-operation with Daimler on hydrogen fuel cells.
- Underlying operating profit of £178m with a margin of 6.5%, 4.9%pts lower than prior year, reflecting the drop in gross profit, partly offset by the improvements in C&A and R&D.

Operational and strategic review

COVID-19 substantially impacted Power Systems during 2020, with delays to certain large projects, as well as a drop in new orders and aftermarket sales. Industrial markets were most affected, as the impact of COVID-19 was compounded by low commodity prices in mining and oil & gas, while project delays weakened construction sales. Other areas of Power Systems were more resilient, notably the Chinese market and governmental marine sales.

Despite COVID-19, we reached major landmarks across all of our five key strategic opportunities during the year. These five opportunities are: capturing growth in power generation, increasing share in China, expanding our gas portfolio, enhancing services, and shifting towards integrated system solutions with a renewable energy focus.

In power generation, economic uncertainty impacted order intake during 2020 however, longer term, we continue to anticipate rising demand led by mission-critical back-up power solutions for data centres and hospitals.

In China, economic conditions recovered quickly and we continued to drive our strategy of partnerships and local production. In November, we announced a record level of provisional agreements at the China International Import Expo, for almost 1,000 MTU engines and systems. In addition, we signed two new strategic partnerships with Chinese companies from the marine, power generation and mining industries.

Our gas portfolio expansion continued with the launch of the new MTU Series 500 engine for power generation, which will initially be offered for operation with natural gas but from end 2021 will also be available for power by biogas. The 500 series is also hydrogen-ready, which means that the engines can be converted to hydrogen operation at a later date. In addition, 2020 saw the premiere of our twin 16-cylinder gas engines with Dutch shipping company Doeksen.

In July, we took a further step in enhancing our services platform, signing a memorandum of understanding with MAN Energy Solutions to collaborate on mýa, an open asset and fleet management system.

Most importantly, we reached a number of milestones in our effort to transition towards complete system solutions and low carbon products. These milestones included:

- the creation of a new organisational unit called 'Power Lab' to focus on innovative energy solutions to support our net zero drive;
- significant advancements in battery storage products, beginning with the acquisition of a majority stake in storage specialist Qinous in January, which is now central to our microgrid solutions business. We also increased our capacity for producing battery containers with the announcement of a new production facility in Bavaria;
- the acquisition of Kinolt, a specialist in dynamic, uninterruptible power supply systems, completes our product offering in back-up power generation; and
- the announcement of a partnership with Daimler Truck AG on stationary fuel-cell generators, as CO_2 neutral emergency power generators for safety-critical facilities including data centres and hospitals.

Power Systems outlook

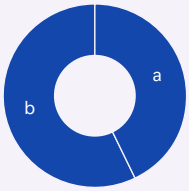
Uncertainty remains over the near-term economic outlook. However, based on Power Systems' short-cycle exposures and the growth potential in key markets such as China, we expect an improvement in order intake during the first half of 2021, converting into a recovery in sales from the second half of the year with revenues returning to approximately 2019 levels in 2022. Longer term there are significant growth opportunities for Power Systems across both existing activities (notably in mission-critical back-up power and expansion in China) and in new low carbon solutions such as microgrids, hydrogen and hybrid-electric power solutions.

DEFENCE

Defence is a market leader in aero engines for military transport and patrol aircraft with strong positions in combat and helicopter applications. It has significant scale in naval and is the technical authority for through-life support of the nuclear power plant for the Royal Navy's submarine fleet.

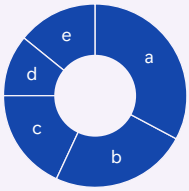
UNDERLYING REVENUE	UNDERLYING OPERATING PROFIT	ORDER BACKLOG
£3,366m	**£448m**	**£7.5bn**
2019: £3,250m	2019: £415m	2019: £8.6bn

UNDERLYING REVENUE MIX



a. OE	**43%**
b. Services	**57%**

UNDERLYING REVENUE MIX BY SECTOR



a. Transport	**33%**
b. Combat	**24%**
c. Submarines	**18%**
d. Naval	**11%**
e. Other	**14%**

Overview

Defence had a strong year in 2020, growing underlying revenue and underlying operating profit despite COVID-19. Throughout the pandemic, Rolls-Royce has received support from its customer base with several government customers accelerating payments and programmes. All Defence facilities remained open throughout the year with decisive and early actions taken to protect employees and maintain the supply chain.

£m	2020	2019	Change	Organic change
Underlying revenue	**3,366**	**3,250**	**4%**	**4%**
Underlying OE revenue	1,436	1,461	(2)%	(1)%
Underlying services revenue	1,930	1,789	8%	8%
Underlying gross profit	**686**	**669**	**3%**	**3%**
Gross margin %	20.4%	20.6%	(0.2)%pt	(0.2)%pt
Commercial and administration costs	(151)	(158)	(4)%	(4)%
Research and development costs	(96)	(105)	(9)%	(9)%
Joint ventures and associates	9	9	–	–
Underlying operating profit	**448**	**415**	**8%**	**8%**
Underlying operating margin %	13.3%	12.8%	0.5%pt	0.5%pt

Financial overview

- Order intake was £2.4bn, representing a book-to-bill ratio of 0.7x. This follows on from a record order intake of £5.3bn in 2019 (1.6x book-to-bill) and an average book-to-bill ratio of 1.2x between 2015 and 2019. Order cover for 2021 is in excess of 90% and the healthy order book currently represents approximately 2.3 years of Defence sales.
- Underlying revenue increased by 4% to £3.4bn. This was largely driven by higher LiftSystem aftermarket revenues as the in-fleet service expands together with international sales of the EJ200 engine powering the Eurofighter Typhoon. Naval sales and UK parts sales also improved compared to the prior year.
- Underlying gross profit of £686m was 3% higher year-over-year. This reflects the higher sales volumes, with gross margin relatively stable at 20.4%.
- Commercial and administration costs were 4% lower year-on-year at £(151)m despite the underlying business growth.
- Research and development costs fell by £9m despite an increase in expenditure on key strategic programmes in the period to support new growth opportunities.
- Underlying operating profit increased by 8% to £448m, with margins 0.5%pts higher. This reflected the stronger gross profit and modestly lower C&A and R&D charges outlined above.

Operational and strategic review

2020 was another strong year for Defence with a healthy pipeline of orders and steady growth in revenue and profits. The business' resilient revenue growth with low cyclicality and high cash conversion provided support for the Group.

Operations were largely unaffected by COVID-19, including the $400m investment project to revitalise our Indianapolis facilities. The new building opened during 2020, with work now ongoing to demolish the previous site. Other milestones included the delivery of the 400th V-22 Osprey tiltrotor, which is powered by our AE 1107C engine, and further test flying for the MQ-25 Stingray aircraft, which will provide unmanned, carrier-based air-to-air refuelling.

Consistent demand for parts and services in Defence helped support the broader aerospace supply chain, particularly those suppliers suffering from reduced activity in commercial aviation. In addition, the growth opportunities in our Defence business enabled some of the experienced colleagues whose roles were removed in the Civil Aerospace restructuring to remain in the Group.

2020 has seen a number of notable orders. The German Air Force placed an order for 56 EJ200 engines and Rolls-Royce's MT30 engine was chosen by the Republic of Korea Navy for its FFX Batch III frigate. Additionally, the UK selected the Rolls-Royce nuclear propulsion system, Pressurised Water Reactor 3 (PWR3), as the preferred bidder for the next generation of attack submarines.

Progress was also promising on new opportunities in the US, including the B-52 re-engining competition and the Future Vertical Long Range Assault Aircraft (FLRAA) . Combined, these two programmes have an estimated potential lifetime value for Rolls-Royce of over £7bn. For the B-52, we are proposing the F130 engine, which is based on the proven and efficient BR725 commercial engine. The outcome is expected to be announced in 2021. On the FLRAA competition, we reached agreement with Bell Textron in 2020 to provide the propulsion for the V-280 Valor aircraft as it moves forward in the competition. A final decision is expected by 2022. Finally, our LibertyWorks team completed rig testing on a new core design for a small engine, successfully executing a rapid prototyping plan from design to test in under a year; and delivered an upgraded thermal management and power system for directed energy applications to Lockheed Martin for integration and testing.

In the UK, the Tempest programme welcomed new partners in 2020. A trilateral memorandum of understanding was signed by the respective Defence Ministers of the UK, Sweden and Italy, and trilateral industry discussions were initiated with leading defence companies, in preparation for the formal launch of the concept and assessment phase in 2021. Work continued at pace on the programme, with our engineers developing advanced combustion system technology and exploring composite materials and additive manufacturing to produce lightweight, more power-dense components capable of operating at higher temperatures. Rolls-Royce is the leading propulsion company in Team Tempest, which is expected to secure our combat engine revenues and expertise for years to come.

We also announced a new strategic partnership agreement with Reaction Engines. This aims to develop high-speed aircraft propulsion systems and to explore the application of their thermal management technology within civil and defence aerospace gas turbine engines, as well as hybrid-electric systems.

Defence outlook

We anticipate another good year for Defence in 2021. Revenue is expected to be stable, with a strong level of order cover coming into the year. Operating margins are also expected to be broadly flat at approximately 13%. We continue to pursue large opportunities in the US which would drive a step-change in growth prospects for Defence, notably the B-52 engine replacement programme for the US Air Force and the Future Vertical Long Range Assault Aircraft competition for the US Army. We also continue to progress Project Tempest in UK air combat. Finally, we are investing in adjacent technologies such as small engines and directed energy power systems in order to drive further medium-term growth.

ITP AERO

ITP Aero is a global leader in aero-engine subsystem design. Alongside the development, manufacturing, assembly and testing of engine components, it provides MRO services for regional airlines, business aviation, industrial and defence applications.

UNDERLYING REVENUE

£705m

2019: £936m

UNDERLYING OPERATING PROFIT

£68m

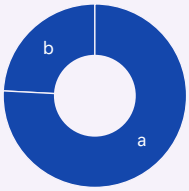
2019: £111m

ORDER BACKLOG

£0.8bn

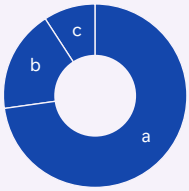
2019: £0.9bn

UNDERLYING REVENUE MIX



a. OE **76%**
b. Services **24%**

UNDERLYING REVENUE MIX BY SECTOR



a. Civil **73%**
b. Defence **18%**
c. In-Service Support **9%**

Overview of 2020

ITP Aero was materially impacted by COVID-19, with similar trends to those seen in Civil Aerospace. Due to the reduction in Rolls-Royce Civil Aerospace deliveries, demand for ITP Aero's widebody modules also reduced significantly, with more modest decreases in ITP Aero's business aviation and narrowbody activities. In response, a restructuring programme was launched and plans are also underway to enhance the scope of ITP Aero's activities. These actions should position ITP Aero for recovery and enhance the potential disposal value of the business.

£m	**2020**	2019	Change	Organic change
Underlying revenue	**705**	**936**	**(25)%**	**(26)%**
Underlying OE revenue	537	782	(31)%	(32)%
Underlying services revenue	168	154	9%	8%
Underlying gross profit	**133**	**206**	**(35)%**	**(36)%**
Gross margin %	18.9%	22.0%	(3.1)%pt	(3.2)%pt
Commercial and administration costs	(38)	(62)	(39)%	(40)%
Research and development cost	(27)	(33)	(18)%	(18)%
Underlying operating profit	**68**	**111**	**(39)%**	**(39)%**
Underlying operating margin %	9.6%	11.9%	(2.3)%pt	(2.1)%pt

Financial overview

- Underlying revenue was £705m, down 26% versus 2019, primarily reflecting lower engine (OE) volumes on civil programmes, particularly in widebody. Defence OE revenue was more resilient, supported by EJ200 orders. Service revenue increased 8%.
- Commercial and administration costs of £(38)m were 40% lower year-on-year, including some benefit from management actions to reduce discretionary costs, with headcount 13% lower at the year-end compared to 2019.
- Research and development costs were £6m lower in the period mainly due to phasing of projects.
- Underlying operating profit of £68m, 39% lower year-on-year, reflecting the lower OE revenues and under-utilisation of the fixed cost base.

Operational and strategic review

Similar to the trends seen in Civil Aerospace, ITP Aero's 2020 performance was materially impacted by COVID-19 as the majority of the business' sales relate to civil aviation. ITP Aero's largest exposure is on Rolls-Royce widebody programmes, however the business also has significant activities in the business aviation and narrowbody markets. This diversity was beneficial in 2020 as these markets were less impacted than widebody which relies on demand for long-haul travel. In the defence market, COVID-19 has had a limited impact, with the reduction in sales in 2020 largely driven by phasing on key programmes. In response to the impact of COVID-19 on ITP Aero's core markets, we launched a substantial restructuring programme which aims to reduce ITP Aero's global headcount by approximately 15% by the end of the first half of 2021. In addition, in conjunction with the footprint review in Civil Aerospace, we proposed an increase to the business' manufacturing, engineering, and supply chain capabilities. This involves the integration of Civil Aerospace's facility and workforce in Hucknall, UK, into ITP Aero, as well as the transfer of aero engines structures activities into ITP, currently carried out in Barnoldswick, UK. These actions will enhance ITP Aero's position as a major tier-one aerospace company. Our planned sale of ITP Aero is progressing well with ongoing conversations with a number of potential buyers.

Despite COVID-19, ITP Aero made further progress on future programmes in 2020, including the design and manufacture of the first intermediate pressure turbine (IPT) casing for the future Rolls-Royce UltraFan engine.

In defence, we formalised our participation as the leader of the engine technology pillar in Spain for the next generation weapon system/future combat air system (NGWS/FCAS). In November, the EUROJET consortium signed a contract to provide 56 new EJ200 engines for the German Air Force's new order of Tranche 4 Typhoon aircraft. ITP Aero is a member of the consortium alongside Rolls-Royce, MTU Aero Engines and Avio Aero.

ITP Aero outlook

We expect some stabilisation in 2021 followed by a recovery in our performance from 2022 onwards reflecting the wider recovery in commercial aerospace as well as the outcomes from our actions to reduce costs to improve profitability. We remain focused on cost savings, including the workforce capacity adjustment of approximately 15% globally from 2019 levels, which is already well underway and will be completed by the end of the first half of 2021. Our planned sale of ITP Aero is progressing well with ongoing conversations with a number of potential buyers.

SUSTAINABILITY

Our activities have a significant impact on society and the environment. We are committed to conducting our business in an environmentally, ethically and socially responsible manner to create value for us and our stakeholders.

As a leading industrial technology company, Rolls-Royce has a key role to play in creating a more sustainable future. Our sustainability approach is driven by an understanding of the impacts we have on society and the environment, and we seek to use that understanding to inform our strategy and decision-making.

Our global governance framework sets out how we govern our business, manage risk and opportunity, reward appropriately and maintain consistent operating standards across the Group. Sustainability is a core component of this.

Our approach

The most significant contribution Rolls-Royce can make to a more sustainable future is to reduce the carbon impacts of our product portfolio and to accelerate the decarbonisation of the sectors in which we operate. We are well positioned to play a crucial role in the transition to a low carbon global economy. We have recognised this in our commitment to reach net zero carbon by 2050, ratified through the UN Business Ambition for 1.5°C campaign, which builds on our existing 2030 target for operations and facility emissions. In 2021, we will produce our roadmap to achieve this, including setting interim targets and milestones. To support this, we are pivoting our R&D expenditure towards low carbon solutions including hybrid, hydrogen and electric power; in the short term, we intend to dedicate approximately 20% of our annual R&D expenditure to these technologies by 2023, an increase from 4% in 2019. The transition to low carbon must be coupled with a broader assessment of our impacts. This informs our sustainability approach. We work to create a more environmentally, ethically and socially responsible and resilient business.

The short-term impact of COVID-19 on our business has placed considerable strain on our workforce and has negatively affected progress against some of our key sustainability targets and measures, particularly those normalised by revenue. Yet our longer-term ambitions to be a sustainable business and play a key role in the transition to net zero carbon have not waned.

2020 Highlights

Completed strategic review of our sustainability approach

•

Announced commitment to net zero carbon by 2050

•

Achieved second position in our sector in the DJSI

•

Introduced ESG metric into 2021 remuneration policy

During 2020, we completed a strategic review of our sustainability approach, overseen by the Safety, Ethics & Sustainability Committee (page 101). This involved a review of our material non-financial issues, including a consideration of the potential impact and the extent of our ability to influence these issues, as well as the views from a range of stakeholders including employees, customers and investors. As a result, we have revised our sustainability materiality assessment, and identified our key contributions to the UN Sustainable Development Goals. This will help inform our sustainability-related focus going forward.

Introducing our sustainability framework

Sustainability remains a broad and complex topic. We have introduced a set of guiding principles, underpinned by our values and behaviours, to support the continued integration of sustainability into decision-making at all levels of the organisation:

- understanding and minimising our impact on the environment, particularly in the context of climate change;
- seeking opportunities to adopt circular business practices to promote responsible resource consumption;
- making a positive contribution to the communities within which we operate;
- acting with integrity and considering the potential and actual ethical implications of all business decisions;
- ensuring zero harm to the people who work for or with us and give them the best opportunity to be at their best; and
- reporting and communicating with our key stakeholders transparently and honestly.

For more information on our sustainability approach, including Group policies and performance data, see rolls-royce.com.

UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS

Through our business strategy and activities, we make a material contribution to a more sustainable society. This can be articulated through our contributions to all the UN Sustainable Development Goals. Through a comprehensive mapping exercise, focused on impact at a target and indicator level, we have identified the Goals most pertinent to our business.

SDG	PRIMARY CONTRIBUTION	2020 PROGRESS
GOAL 8 DECENT WORK AND ECONOMIC GROWTH	We have a responsibility to provide a safe and fair workplace for our people and those employed in our supply chain. We are committed to creating a working environment where everyone can be at their best.	– Formed Emergent Alliance to support global economic recovery from COVID-19.
GOAL 12 RESPONSIBLE CONSUMPTION AND PRODUCTION	We are committed to promoting the responsible use of resources and minimising our environmental impacts across our manufacturing and production activities.	– Diverted 5.6 kilotonnes of waste from landfill compared with baseline year. – Introduced new recycling and resource efficiency target.
GOAL 13 CLIMATE ACTION	As a global power company, operating in some of the most carbon-intensive sectors, we have a fundamental role to play in the transition to a net zero carbon future and to taking action to address climate change.	– Announced net zero carbon commitment. – Joined UN Business Ambition for 1.5°C campaign. – Participated in UN Race to Zero launch.
GOAL 16 PEACE, JUSTICE AND STRONG INSTITUTIONS	Maintaining high standards of ethics and compliance are fundamental to our continued success. We have a responsibility to conduct our business responsibly and ethically, and with due consideration of the human impact of our activities, particularly in the application of defence products.	– Strengthened our anti-bribery due diligence. – Published Aletheia Framework supporting the ethics of artificial intelligence.

Non-financial information statement

The following chart summarises where you can find further information on each of the key areas of disclosure required by the EU Non-Financial Reporting Directive.

	Related Group policies	Related principal risks	Page
Environmental matters	– Health, safety & environment	– Climate change – Safety	35 to 39 and 205
Employees	– Security – People	– Talent and capability – Safety	40 to 45
Social matters	– Charitable contributions & social sponsorships	– Political risk	40 to 45
Human rights	– People – Human rights		45
Anti-bribery and corruption	– Anti-bribery & corruption	– Compliance	45

– Our business model provides an insight into the key resources and relationships that support the generation and preservation of value within Rolls-Royce. See pages 12 and 13.
– Non-financial key performance indicators allow us to assess progress against objectives and monitor the development and performance of specific areas of the business. These are set out on page 17.
– Further information on Group policies can be found on rolls-royce.com.
– Full details of the Group's principal risks can be found on pages 46 to 51.
– Disclosures based on the principles of Taskforce on Climate Related Financial Disclosures (TCFD) are detailed on page 38.

LEADING THE TRANSITION TO NET ZERO

To meet the demands of a growing, more connected society, the power that matters must be sustainable power. Our technology will play a fundamental role in enabling the transition to a low carbon global economy.

We are determined to use our position as a global power group to play a role in creating a resilient, inclusive, net zero carbon future. During 2020, we ratified this ambition by joining the UN Race to Zero and UN Business Ambition for 1.5°C campaigns.

Achieving net zero carbon will require a wholesale transformation of the systems that make up the backbone of our global economy, including power, transport and the built environment, the very sectors in which reducing emissions is the hardest. At Rolls-Royce, we believe there are technological solutions to decarbonising these vital parts of the economy. With the right policy, environment and public support, we have the potential to pioneer game-changing technology that will help deliver a net zero carbon future.

Our decarbonisation strategy

Through our decarbonisation strategy, we intend to become a net zero carbon company across our value chain. We have a target to achieve net zero greenhouse gas emissions in our operations and facilities (scope 1 + 2 emissions) by 2030, excluding product test emissions [1]. By 2050, we aim to mitigate these remaining emissions, which play a key role in product development and safety programmes, to become a carbon neutral business. More fundamentally, we are determined to use our capabilities and expertise to achieve and accelerate the decarbonisation of the sectors we serve (namely scope 3 emissions associated with the use of sold products). By 2050, we intend to make all our products compatible with net zero carbon emission operations and we will pioneer new industrial technologies that connect, power and protect a net zero carbon economy. We have built upon previous work on climate scenario planning to assess the viability of this decarbonisation strategy. Lastly, we have considered the impact of our climate change plan in our financial statements (see page 114).

2020 Highlights

Announced commitment to net zero carbon by 2050, joining the UN Race to Zero and UN Business Ambition for 1.5°C campaign

•

Conducted first engine ground tests on 100% unblended SAF

•

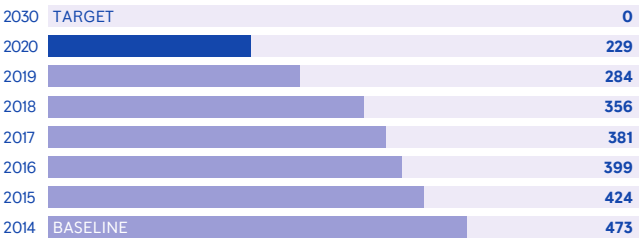
Progressed our SMR programme and secured further funding

Achieving carbon neutral operations and facilities

We have a target to achieve net zero greenhouse gas emissions in operations and facilities by 2030[1]. This will be delivered through continued investment in onsite renewable energy installations; the procurement of renewable energy; and continued investment in energy efficiency improvements to reduce our overall energy demands and operating costs. We also have plans to expand the utilisation of Rolls-Royce technologies, such as microgrids, across our own estate.

During 2020, absolute emissions of GHG associated with our operations fell by 55 $ktCO_2e$ to 229 $ktCO_2e$ from 284 $ktCO_2e$ in 2019. This represents a reduction of 52% since 2014. The year-on-year reduction was driven by lower operational activity as a result of COVID-19 and further decarbonisation activities across our European estate, including switching to renewable electricity suppliers at Oberursel and Dahlewitz, Germany, and an energy reduction campaign across our larger sites. In 2021, we will concentrate on identifying renewable energy providers for our larger US sites.

ABSOLUTE GHG EMISSIONS ($ktCO_2e$) [1,2,3,4]



[1] Emissions associated with product test and development, critical to ensuring product safety, are excluded from our GHG target. Statutory GHG emissions data, including emissions from these sources, are detailed on page 205.
[2] External assurance over the GHG data is provided by Bureau Veritas. See page 204 for the sustainability assurance statement.
[3] Data has been reported in accordance with our basis of reporting, available at rolls-royce.com/sustainability. GHG data for previous years has been restated to reflect the disposal of the North American Civil Nuclear business and Trigno Energy. ITP Aero data is included from 2017.

Technologies for a zero carbon future

Rolls-Royce technologies can play a crucial role in the transition to a net zero carbon future. However, the complex nature of the sectors we operate in means that the transition towards net zero will not be easy or straightforward; it will require a combination of technology and policy levers to execute, including further fuel-efficiency gains, new technologies and transition to lower carbon fuels. These plans are built into our short and medium-term forecasting.

Efficiency gains and engine architecture

Carbon emissions are closely linked to fuel burn. By developing and implementing technologies to improve efficiency, we can substantially reduce the CO_2 impact of our products in operation. Despite the pressures of 2020, we have continued to progress our UltraFan design, which will deliver a 25% efficiency gain compared to early Trent engines, including reaching several design milestones during the year. We plan to progress to final assembly of UltraFan in 2021. Continued focus on engine efficiency gains will be critical given the significant costs associated with lower carbon alternative fuels.

Power Systems continues to focus on improving efficiency and performance to decrease emissions and noise. The engine evolution of our iconic 4000 series engine is 5% more efficient and emits 75% less NOx than its predecessor and has been designed for compatibility with gas and synthetic fuels including methanol. Increasingly, our reciprocating engine family will be integrated into systems solutions, such as hybrid trains, hybrid ship propulsion and microgrids.

Transition to lower carbon alternative fuels

Moving away from traditional fossil fuels and to low, ultimately zero, carbon fuels will make a significant contribution towards net zero carbon in both aviation and land-based power. Whilst the majority of our products are capable of running on synthetically derived low carbon fuels, industry faces shortages in demand based in part on the high costs associated with manufacturing such fuels. Rolls-Royce has a critical role to play in advocating and accelerating the availability of alternative fuels and we have worked in partnership with the fuels industry throughout 2020 to support this. We have also demonstrated our engines compatibility with new fuel types, ground testing 100% unblended sustainable aviation fuel (SAF) in a Trent engine at the end of the year. Similar tests have already been carried out in our Defence engine portfolio. In Power Systems, we are actively exploring opportunities in the fuel cell and power-to-x markets. Power-to-x refers to the conversion of electricity into other forms of energy, including hydrogen and synthetic or e-fuels. We will introduce the first demonstrator for a stationary fuel cell in Friedrichshafen, Germany, during 2021. This is designed as a smaller scale, decentralised power plant in which electricity from renewable energy is synthesised into e-fuel. We also envision a key role for our SMR technology in providing a reliable and low carbon energy source for synthetic fuel production.

Electrification and hybridisation

Hybrid and fully electric propulsion will play an exciting role in disrupting and decarbonising the personal mobility market. Through Rolls-Royce Electrical, our dedicated business unit, we are developing the capabilities and supply chain to capitalise on this technology. During 2020, we announced the conclusion of our partnership with Airbus on the E-Fan X programme. From that programme, Rolls-Royce has moved forward with the development of our Power Generation System 1 (PGS1) demonstrator, the most powerful hybrid-electric engine currently in development for aerospace. This programme will give us a greater understanding of delivering electrification in the MW category. We are also actively involved in a range of aircraft programmes in the kW class.

In early 2021, the first testing of a hybrid-electric rail service on the Chiltern railways line, UK, will commence, with the intent of entering public service in the later part of 2021.

Small modular reactors (SMRs)

We have been working with consortium partners and the UK Government to launch our SMR concept. SMRs are nuclear power stations, in the order of 440 MW (large enough to power a small city), designed to be low cost, low risk and quick to market. Rolls-Royce is ideally placed to exploit this technology bringing together the latest manufacturing technology with world-class nuclear expertise. SMRs can play a major role in decarbonising the energy grid, and can potentially be utilised for hydrogen and synthetic fuel production. During 2020, we secured further funding from the UK Government to move to the second stage in the development process.

Testing on 100% unblended SAFs

Towards the end of 2020, we conducted a series of ground tests on a Trent 1000 engine using 100% sustainable aviation fuel (SAF) for the first time. At present SAF is only certified for commercial use in blends of up to 50%. We carried out the tests in order to confirm that using an unblended fuel can make a significant contribution to improving the environmental performance of gas turbine engines and to gain valuable data on how the fuel performs in the engine. We intend to make lower carbon alternative fuels a regular part of our testing programme, including conducting a series of tests on a Pearl 700 business aviation engine in early 2021. This is part of our drive to accelerate the availability of SAF, demonstrate technology readiness, and supports our aim to decarbonise our engine testing regime, which plays a vital role in ensuring product safety.

DISCLOSURES ALIGNED TO TCFD RECOMMENDATIONS

We support the recommendations of the Taskforce on Climate-related Financial Disclosures (TCFD) to enhance company reporting on climate-related strategy and risk management. The following table summarises our disclosures:

GOVERNANCE	— the Board oversees, through the Safety, Ethics & Sustainability Committee, our sustainability and climate approach receiving updates from subject matter experts at least three times a year (see page 101); — the executive-level environment & sustainability committee, is responsible for environmental and climate-related policy strategy and co-ordinating related activities; and — we have an independent environmental advisory board, comprising leading academics from environmental, materials and climate-related fields, which complements our in-house expertise.	For more detail on our approach to corporate governance see pages 62 to 63.
STRATEGY	— climate change and its associated impacts will play a pivotal role in determining the long-term success of our organisation: it presents a variety of opportunities and risks that drive our strategic decisions; — the opportunity to pioneer industrial technologies that connect, power and protect a net zero economy by 2050 is driving our growth and innovation strategy (see page 37); and — we recognise and report on the potential impact that both transitional and physical risks associated with climate change pose to our business over the short, medium and long term including risks to product operations, regulatory risks and risks related to societal pressure.	For more detail on our business model and strategy see pages 9 to 13.
RISK MANAGEMENT	— climate change, particularly due to the threat placed on our ability to generate future revenues, has been recognised as a principal risk (see page 48); — we have used scenario planning, including a scenario aligned to a 1.5°C transition, to identify key sensitivities, risks and opportunities associated with physical and transitional climate related impacts; — we integrate the management of climate change risks and opportunities into our enterprise risk management system, recognising the potential role of climate change in exacerbating and accelerating our other principal risks (see pages 46 to 51); and — the potential impact and associated costs of climate change are considered within our financial planning, including funding to achieve our 2030 operations target and R&D funding to progress our 2050 net zero target. Our financial statements and viability statements are published in accordance with our best view of the impacts climate change will have on future business performance.	For more detail on our approach to risk see pages 46 and 47.
METRICS AND TARGETS	— GHG scope 1 & 2 emissions in line with the Streamlined Energy and Carbon Reporting (SECR) regulations are detailed on page 205; — target to achieve zero greenhouse gas emissions from operations and facilities by 2030 (see page 36); — commitment to net zero by 2050 ratified by the UN Business Ambition for 1.5°C. We will produce our roadmap to achieve this, including setting interim targets and milestones, in 2021; — we monitor GHG emissions related to the use of sold products (scope 3) and use this to inform our technology strategy to ensure compatibility with a 1.5°C future; and — introduced ESG metric into 2021 remuneration policy.	For more detail on our climate-related targets see page 39.

For more detail on our approach to climate change, including our approach to climate risk management and details on scenario planning, see rolls-royce.com.

RESPONSIBLE CONSUMPTION

Understanding and managing the environmental impact of our operations is a key part of being a responsible and resilient business. We seek to consider and mitigate the environmental impact of our activities and major business decisions.

Our Group policies set out our commitment to be environmentally responsible and to minimise the negative impact of our business activities. The nature of the products often requires specific, and sometimes significant, demands on material and energy resources across a global supply chain. Ensuring responsible consumption of resources ensures we are a more resilient business and contributes towards a more sustainable society.

Moving towards a circular economy

The nature of our business model is well aligned to the principles of a circular economy. Through our business practices, including our revert program for high-value metal recycling, we are able to safeguard supplies of key materials, maximise resource efficiency and contribute significantly to the reduction of carbon emissions across our value chain. As part of our efforts to promote responsible consumption and minimise environmental impact, we have set stretching targets to reduce waste and increase resource efficiency. From the start of 2021, we have introduced a new target to increase the recycling and recovery rate to 68% by 2025, whilst continuing to progress towards zero non-hazardous waste to landfill.

2020 Highlights

Diverted 5.6 kilotonnes away from landfill compared with baseline year

•

Introduced new recycling and recovery target

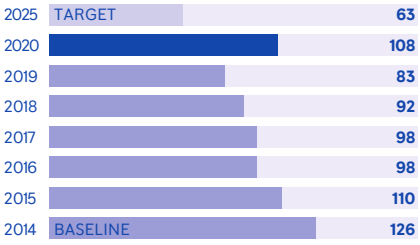
•

Introduced new technology which reduced coolant waste by 480,000 litres

Progress against current targets

We have continued to make good progress against our environmental targets during the year. However, the financial impact of COVID-19 has negatively impacted progress against some of these targets, particularly those normalised by revenue, although the underlying data remains on track. Despite significant progress in diverting non-hazardous waste from landfill, a small number of waste streams continue to present significant technical and infrastructural challenges. This includes 1.8 kilotonnes of foundry sand from one of our casting operations. Notwithstanding these challenges, 88% of sites successfully transitioned to zero non-hazardous waste to landfill status. We will continue to implement landfill alternatives for the limited remaining sites as technology and infrastructure becomes available as part of our new recycling and recovery target.

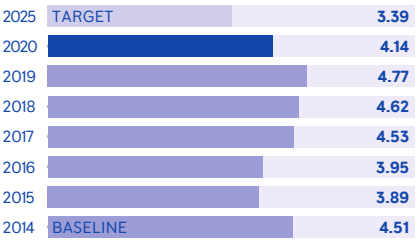
ENERGY CONSUMPTION (MWh/£m)



Target:
Reduce normalised energy consumption by 50% by 2025 [1,2,3,4]

We have made good progress to date towards our 2025 target, reducing absolute energy consumption by 218,916 MWh (15%) since 2014. This has been driven by energy efficiency improvements, behaviour change programmes, and improved baseload management and weekend reductions at our larger manufacturing sites. Absolute energy consumption reduced by 82,814 MWh in 2020 compared to 2019 due to lower operational activity, however normalised energy consumption increased by 30%.

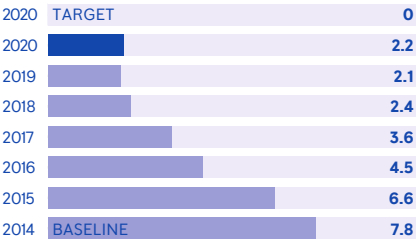
TOTAL SOLID AND LIQUID WASTE (t/£m)



Target:
Reduce solid and liquid waste by 25% by 2025 [1,2,3,4]

We focus on opportunities to prevent and reduce the amount of waste we generate at source, reducing the costs and environmental impacts associated with processing and disposing of that waste. For example, our coolant waste reduction programme has mitigated over 480,000 litres of liquid waste, while providing cost savings of over £0.5m per year. The total amount of solid and liquid waste generated in 2020 was 48.7 kilotonnes. Normalised total liquid and solid waste was 4.14 kilotonne/£m, an 8% reduction since 2014.

WASTE TO LANDFILL (000 tonnes)



Target:
Achieve zero waste to landfill by 2020 [1,2,3]

Over the course of the target, we have successfully diverted 25.4 kilotonnes of waste from landfill by reducing waste generation at source and identifying alternative treatment solutions. For example, collecting ceramic waste from casting processes and metals from grinding waste for recycling. We will continue work to identify landfill alternatives for the remaining waste streams currently sent to landfill as part of our new target.

[1] External assurance over the energy and waste data is provided by Bureau Veritas. See page 204 for the sustainability assurance statement.
[2] Data has been reported in accordance with our basis of reporting. More data charts and our basis for reporting is available at rolls-royce.com/sustainability.
[3] Energy and waste data for previous years has been restated to reflect the disposal of the North American Civil Nuclear business and Trigno Energy. ITP Aero data is included from 2017. Data from ITP Aero is not included in our zero waste to landfill target.
[4] Energy and total waste reduction targets are normalised by revenue.

PEOPLE AND CULTURE

Our people create our value and we strive to release their potential to position Rolls-Royce as the leading industrial technology company, delivering sustainable business growth and solving vital power needs.

2020 Highlights

Implemented strict safety measures to protect against the spread of COVID-19 at our sites around the world and increased our focus on health and wellbeing

•

Introduced pay and benefits changes to significantly reduce employment costs

•

Launched a fundamental business restructure including the reduction of at least 9,000 roles globally, of which we have removed around 7,000 in 2020

•

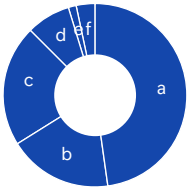
Established a redeployment talent hub to retain critical talent and capability within the business

In the context of an extraordinary year dominated by the impact of COVID-19, we implemented some difficult employment-related changes. This included making substantial headcount and employment cost reductions, as well as consolidating our global manufacturing footprint. We worked hard to ensure our essential operations were able to continue, whilst also looking after our people. We implemented strict workplace safety measures and in some parts of the business introduced new ways of working.

We supported our people to work from home, where possible, and recognised this as an opportunity to further increase flexible working in the future. We continued to transform our culture and embed our values and behaviours focusing on leadership capability, performance enablement and employee engagement. We identified capability focus areas that will determine the success of our business now and in the future. Our approach to people and culture is underpinned by our people framework with our 'care promise' remaining central to everything we do – creating a working environment where everyone can be at their best.

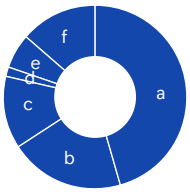
OUR PEOPLE FRAMEWORK

48,200 EMPLOYEES TOTAL (MONTHLY AVERAGE) *



a. Civil Aerospace	23,400
b. Power Systems	8,900
c. Defence	10,500
d. ITP Aero	3,800
e. Corporate	100
f. Non-core businesses	1,500

EMPLOYEES IN 45 COUNTRIES (MONTHLY AVERAGE) *



a. UK	22,000
b. Germany	9,800
c. USA & Canada	6,200
d. Nordics	700
e. Spain	3,000
f. Rest of World	6,500

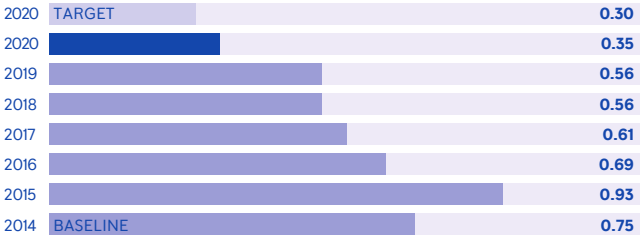
* Employee headcount data represents permanent employees and excludes contractors.

Health, safety and wellbeing

Ensuring the wellbeing of our people, and those who work with us, by providing a safe place of work and minimising potential exposure to harm, is a key component of our care promise. Whilst COVID-19 posed extra challenges this year, we acted swiftly to ensure the health and safety of our people and to safeguard our business operations. We used our pre-existing pandemic plan and risk frameworks to guide our response and support our people through the emerging crisis. We implemented strict workplace measures to protect against the spread of the virus at our sites around the world and increased our focus on employee mental health and wellbeing. In some facilities we introduced new ways of working, such as split shift patterns and alternating teams, with new booking systems to manage attendance patterns safely.

We utilised our incident support teams and accountable persons network to develop governance structures and global processes aligned with in-country requirements. We launched a COVID-19 intranet microsite, with regular communications and resources to help our people to protect themselves and others. We also continued to embed mental health as a Group priority through our global mental health strategy. We introduced a global mental health champion framework as an extension of our UK network, and trained in excess of 120 new champions this year. We made great progress with our LiveWell global accreditation scheme which recognises sites that have created environments to help people to lead healthier lives. In 2014, the LiveWell target was set for all sites with more than 50 people to become LiveWell accredited by 2020. We have significantly exceeded this target with more than two thirds (68%) of our sites going beyond bronze to reach silver, gold and even platinum levels of accreditation.

TOTAL REPORTABLE INJURY (TRI) RATE (PER 100 EMPLOYEES)[1]



[1] Our TRI rate for previous years has been restated to reflect the disposal of the North American Civil Nuclear business and Trigno Energy. ITP Aero data is included from 2017. External assurance over the TRI data provided by Bureau Veritas. See page 204.

Our TRI rate in 2020 was 0.35 per 100 employees, just missing our stretching Group target of 0.30. There were a total of 173 TRIs, of these 15 resulted in major injuries with no fatalities. Although we missed our target this year, our current TRI rate represents a 53% reduction from our baseline year and a 38% year-on-year reduction (116 fewer TRIs per year). These improvements followed the implementation of focused actions plans in 2020, based on detailed analysis of our TRI data. As a result, all of our businesses improved their TRI performance. We will continue our improvement efforts and will be moving to a safety-index scorecard which will include a TRI measure.

New ways of working

In response to the impact COVID-19 on our business, we implemented changes to reduce employment costs in the short term and to reset our approach to rewarding people in the future. In the UK, the Government's job retention scheme was used from April onwards to support significant numbers of employees on furlough. In Germany, where appropriate, the Kurzarbeit or short-time working scheme was used, as well as introducing a two-week shutdown. Similar schemes were used in other countries in line with local legislation and business requirements. We introduced many changes to ways of working across the Group, according to local requirements and our agreements, including reduced hours working, adjustments to pay and various unpaid leave arrangements, as well as changes to some of our pension plans. We introduced a pay deferral for 2020, repaid in December 2020, and communicated there will be no 2020 bonus or 2021 pay review for most parts of the Group.

We tackled these difficult pay and employment-related challenges working closely with our employee representatives, often via frameworks that have had to be amended to meet the urgency of the COVID-19 pandemic. Due to the scale and nature of the necessary change this has been challenging, but overall our approach has remained collaborative with successful results. In response to our proposed site consolidation, we experienced a period of industrial action at our Barnoldswick, UK, site but this was resolved with a collaborative agreement overwhelmingly supported by the local workforce. We will continue to work closely with our employee representatives to maintain the sustainability and competitiveness of our cost base and reward frameworks for the future, ensuring that our performance measures are aligned with company priorities.

Many of our people needed to adapt swiftly to new ways of working through the COVID-19 pandemic, including working remotely or from home. We have supported this by enhancing our IT platforms, providing more digital learning and coaching our leaders on new ways of working. We have also taken this opportunity to emphasise our commitment to flexible working for the long term to enable our people to be at their best. We recognise that one size does not fit all and have developed tools to support our leaders to positively engage with their teams on a variety of different flexible working considerations. We will continue to develop and broaden our approach throughout 2021.

Fundamental restructuring

Our business restructuring has been dominated by two themes: short-term mitigation measures to secure liquidity and longer-term restructuring to resize the business whilst accelerating progress on culture and leadership.

Following the impact of COVID-19, we took significant steps to resize our business, focusing on Civil Aerospace where the impact was the greatest. We launched a strategic review of our facilities to help sustainably balance future load and capacity and to reduce our cost base. The review identified a range of actions including proposals to consolidate similar activity from multiple sites into fewer core sites.

Some of these have already been implemented and others are the subject of consultation with employees. In May, we proposed a major restructure, the largest in our recent history, which will see a reduction of at least 9,000 roles globally. Seeing our people leave the business is always difficult and we focused on doing this in the best way possible and treating everyone with dignity and respect. We have made strong progress this year removing around 7,000 roles, of which around 5,500 were from our Civil Aerospace business. The majority of people who left the business in the UK, left on voluntary redundancy. These difficult but necessary changes will help generate recurring operational benefits for the Group and our mitigating actions to preserve cash have significantly contributed to our in-year cost reduction targets.

Start of year headcount[1]	End of year headcount[1]	Number of roles removed[2]
53,770	46,619	7,151

[1] Headcount includes contractors as well as permanent employees.
[2] Change based on year-end 2019 and year-end 2020 actuals.

Throughout our restructuring, we proactively focused on talent and made sure that, where possible, we did not lose capabilities critical to our future success, or negatively impact our diversity. This included establishing a redeployment talent hub to maximise the quality and quantity of critical talent retained in the business, and making some internal transfers of key capabilities.

UK defined benefit pensions review

In response to the impact of the pandemic on our business, we took further action with our pension arrangements for UK employees. Our UK pension plan closed to new hires in 2007 and in 2020 we agreed with the trustees to cease the further build-up of benefits for all remaining active members. This followed a consultation process covering over 7,500 employees. From 1 January 2021, all employees transferred to a defined contribution pension with benefits at the standardised level for other UK employees (i.e. a maximum employer contribution of 12% of salary). This change will support the Group's future financial position and ensure a more equal level of total reward for our people regardless of when they commenced employment.

Enabling our people

The impact of our short-term mitigating measures to counter the effects of COVID-19 created an even greater need to focus on supporting and developing our people this year. A significant element of our planned investment in leadership development and broader learning was paused in 2020, however, we have still made progress. Our investment in learning and development in 2020 was £13.5m (2019: £28.7m), delivering just over half a million hours of formal learning (2019: 1.4 million hours). In the future, we will report volumes of 'learning engagements' as well as costs and hours. This will provide data on our employees accessing online learning materials, which is not reflected in the above figures. We believe this will become a useful indicator of development, as we move to increasingly digital and virtual learning and development solutions. To support increased remote working, our leadership programmes were re-developed in 2020 to be fully virtual offerings and we introduced our digital leadership toolkit. We also created a new brand for learning: a framework to link all of our learning resources. This is focused on continuous learning with a growth mindset and will be launched early in 2021 along with a new more personalised learning technology platform.

Our internal promotion and turnover rates in 2020 were negatively affected by the impact of COVID-19 and our fundamental restructuring programme. In 2020, 644 leaders were promoted internally (2019: 1,150) and our employee turnover was 15.3% (2019: 7.5%). We continue to focus on ensuring we have the right people, with the right skills, in the right roles to deliver organisational success.

Digital leadership toolkit

Available on any device, digital learning content can be accessed quickly and simply, at the point of need, to support our current and future aspiring leaders.

Through 2020, we released learning materials focused on relevant challenges such as 'leading in a crisis'; 'leading through restructure'; 'leading inclusively'; and more recently 'leading sustainably' and 'leading the transition to net zero'. In the first nine months to the end of 2020, utilisation reached 74,300 learning engagements, which is more than we could have achieved through more traditional classroom based methods.

Employee engagement

Employee engagement continues to be a priority and is a key measure in our annual bonus plans. We believe that positive engagement is the result of excellent leadership and a working environment where everyone can be at their best. Our approach remains a mix of locally-driven and Group-wide global engagement. We provide a variety of channels to communicate and engage our employees and their representatives including employee newsletters, magazines and team briefings, as well as our digital communication channels such as Yammer. Our Executive Team have held regular 'YamJams' this year where all employees can direct questions to our leaders who will provide a response live, or as a follow up, posted on Yammer. We also work closely with elected employee representatives through well-established frameworks including our European Works Council. Our incentive schemes and share programmes are made available to all our people. In 2019, we launched our new employee engagement survey in partnership with Gallup and this simplified framework is now embedded across the Group. We have set a target to achieve top-quartile scores by the end of 2023, and our current results shows we are on track to do so. We ran our third Gallup survey this year and maintained a good participation rate of 72%. We achieved a meaningful increase of +0.16 reaching a company 'grand mean' of 3.68 which places us in the 31st percentile of manufacturing companies that partner with Gallup. This is an increase from the 13th percentile in 2019.

Our non-financial KPIs are on page 17. External assurance over the employee engagement scores is provided by Bureau Veritas (see page 204 for their sustainability assurance statement).

Community and STEM Outreach

Our community investment activities build positive relationships in the communities around us and create engagement opportunities for our people. Whilst planned activities were significantly disrupted during 2020, we responded to the challenge by becoming more virtual. We moved our STEM education outreach resources online and shared additional resources to support learning from home, for example, through our digital academy's 'Helping You Prepare' programme and our many other education partnerships. We have reached one million people through our STEM programmes and are now 31% towards our target to inspire 25 million of tomorrows pioneers by 2030.

Manufacturing supply chains were put to work to increase ventilator production and we produced 3D printed face masks as well as donating PPE for health care workers. Our people continued to be at the core of all of our activities and volunteered their own time and expertise to support intitiatives as well as raising funds, and donating resources to support the communities in which we operate. In 2020, 36,487 hours of employee time was committed to STEM and community outreach activities (2019: 96,000).

Global charitable contributions totalled £4.8m in 2020 (£3.4m cash contributions). This included £0.9m raised by reclaiming and selling the shares of gone-away shareholders.* Most of the funds invested support STEM education outreach, particularly targeting under-represented groups. For example, the Agastya Project in India brings a mobile science lab to schools in rural communities; our work with Social Return Foundation in Germany helps migrant communities to gain the skills needed to enter further education or jobs in STEM; and projects in the UK and India specifically encourage and support women to pursue STEM pathways into work. A small proportion of funds has been donated to causes supporting one-time humanitarian events such as the initial outbreak of COVID-19 in China and the Aegean earthquake in 2020.

Continued focus on accelerating inclusion

In a year that required a change of direction to focus on COVID-19 mitigations, and the launch of our fundamental business restructuring, we continued to take deliberate action to create an inclusive and more representative employee population. This year, we developed a new strategy with an overarching principle of leaders role modelling inclusion and action plans focused on four key pillars: leadership & governance; attracting & recruiting; retention; and development.

Highlights in 2020 include:

- increasing women on business leadership teams – notably the appointment of the first female board member of Power Systems (CFO) as well as achieving a 50% female hiring ratio for our enterprise leadership group (ELG);
- Civil Aerospace signed up to IATA 25 – an initiative to advance gender diversity in the aviation industry;
- our graduate and intern selection processes were redesigned to remove barriers to ethnic minority candidates;
- in the US, we hired veterans in mid-career niche engineering roles to improve ethnic minority representation;
- globally, our female turnover remains lower than for males; and
- we created inclusive leadership development programmes and additional learning resources to be rolled out in 2021, along with new mandatory diversity & inclusion learning for all employees.

Of significant note has been our response to the 2020 Black Lives Matter movement. Our Chief People Officer and people director responsible for inclusion led listening sessions with our employee resource groups (ERGs) representing our black colleagues in both the UK and US. These sessions subsequently led to the evolution of our diversity & inclusion strategy, as outlined above.

In 2020, we maintained our focus on the diversity of external hires despite significantly reduced hiring due to the impact of the COVID-19 pandemic. We increased female hires globally at all grades from 18% to 19% and our apprentice hires were 22% female compared to 16% in 2019. Our early career intake was reduced to a quarter of the volume of previous years and we temporarily paused our business and functional programmes, which typically attract more females than our engineering programmes. The gender diversity of our graduate hires was particularly impacted by this, as well as our restructure activity and only 13% of our hires in 2020 were female compared with 32% in 2019. We remain focused on improving our diversity and any candidates delayed from joining this year have formed our talent pipeline for the future. We have provided career support and frequent communication to them throughout the pandemic.

We give full and fair consideration to all employment applications from people with disabilities. If an employee becomes disabled whilst working for us we take steps to support their continued employment including, wherever possible, making adjustments to ways of working. All employees can take advantage of our learning programmes, often available online, and promotion opportunities are open to all employees regardless of any disabilities.

Treating everyone with dignity and respect

We launched our anti-bullying and harassment programme in 2019 with a culture change goal of eliminating inappropriate behaviours from our workplaces.

In 2020, we focused on embedding knowledge and understanding, with all leaders, and our HR teams were required to complete online and face to face learning on the topic. We also continued to raise behavioural expectations and maintained focus on the topic through regular communications, real life case studies and interviews from our leaders.

* Shareholders the company has been unable to trace for 12 years, a change to the Company's Articles of Association approved by shareholders in 2017.

Progress against our diversity targets

We had 2020 Group targets in place to increase the representation of women at all levels which were also supported by local business and country targets to address local diversity challenges. Our progress against these targets can be seen below. We have missed some of these targets and acknowledge there is work to do in a number of areas. We have no female Executive Team members, however our succession pool is 42% female and we have increased representation of non-British nationalities from 50% in 2019 to 58% in 2020. The impact of the COVID-19 pandemic this year has made it challenging to make significant progress, but we have continued to focus on diversity throughout our fundamental restructuring, and we have set new challenging targets for 2025 for both gender diversity globally, and ethnic minority representation in the UK and US.

Employee turnover rate in 2020

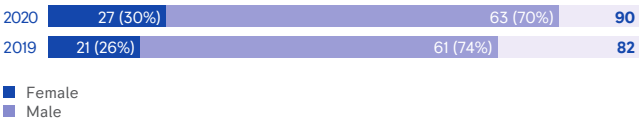
	% of population
All employees	15.3
Male employees	15.7
Female employees	12.8

Diversity targets and 2020 actuals

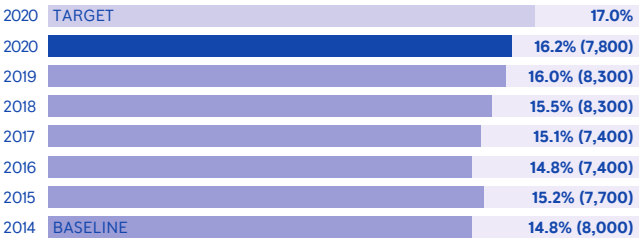
	2020 Target	2020 Actuals	2025 Target
Female population			
Board	33%	31%	33%
ET	23%	0%	33%
ELG	25%	20%	35%
Senior Leaders*	21%	19%	30%
Leaders	20%	19%	30%
All employees	17%	17%	25%
Ethnic minority population			
UK	10%	10%	14%
US	19%	15%	20%

* Senior leaders defined as all leaders who are career level B, or equivalent global grade and above.

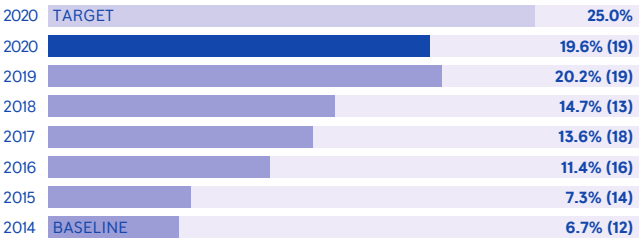
EXECUTIVE TEAM, COMPANY SECRETARY AND THEIR DIRECT REPORTS



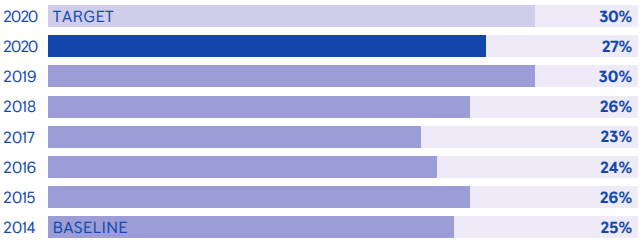
FEMALE EMPLOYEE POPULATION[1]



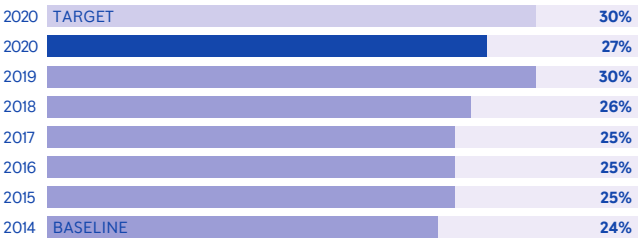
FEMALE SENIOR MANAGER POPULATION[2]



FEMALE GRADUATE POPULATION[3]



FEMALE HIGH POTENTIALS POPULATION[3]



[1] Employee headcount data is calculated as the average number of full time equivalents throughout the year. Certain joint ventures are classified as joint operations, 1,300 employees associated with joint operations are not included within our overall headcount or diversity data.
[2] Senior manager population for 2020, 2019 and 2018 is calculated as Executive Team and ELG population (2020 total:96, 2019 total:94, 2018 total:88), prior years data refers to the senior leadership team that was replaced by the ELG through restructuring in 2018.
[3] The graduate and high potentials targets refer to the percentage of employees on these development programmes as at 31 December each year.

ETHICS AND COMPLIANCE

Maintaining high standards of ethics and compliance is fundamental to our continued success. We work hard to create a working environment where everyone at Rolls-Royce and those we work with can be at their best.

We are committed to maintaining the highest ethical standards and have a suite of Group policies and processes in place to help us avoid any potential complicity in misconduct. Our Code of Conduct (Our Code) and associated policies set out the values and behaviours we expect everyone to demonstrate. They also provide guidance on how to apply these principles in our daily decisions.

In 2020, our mandatory ethics training focused on making decisions. This comprised of team discussions on real-life cases where people had their decision influenced by an authority figure, the group, time pressure or optimistic bias. 92% of in-scope employees completed the training (2019: 97%) by the year-end deadline. An extension to early 2021 was agreed with the European Works Council for employees based in Germany. 99% of managers certified their commitment to adhere to the principles set out in Our Code (2019: 99%). We flow these principles to our suppliers through our Supplier Code of Conduct. All suppliers are contractually required to adhere to this, or a mutually agreed alternative.

We actively encourage speaking up in the event of a question or concern and provide a variety of channels through which colleagues may do so. During the year, as working patterns changed due to COVID-19, we continued to highlight the channels available to everyone if they had a concern. In addition, the ELG were prompted to be vigilant in ensuring business be conducted in line with our values and behaviours, Our Code and Group policies.

We have a zero tolerance approach to misconduct of any kind and will take disciplinary action, up to and including dismissal, in the event of a breach of Our Code. In 2020, 63 employees (2019: 85) left the business for reasons related to breaches of Our Code.

Anti-bribery and corruption

Our Code and associated policies clearly set out our commitment not to tolerate bribery or corruption in any form. In 2020, we strengthened our anti-bribery and corruption due diligence, including introducing revised procedures and a new supporting system. This also involved introducing further targeted training for key users of these procedures. In addition, for occasional users we made available a series of podcasts to explain the revised procedures. We conduct extensive due diligence into potential joint venture partners as well as supporting existing joint ventures in their ethics and compliance programmes.

2020 Highlights

Introduced strengthened anti-bribery & corruption due diligence

•

92% employees completed annual ethics training

•

Initiated review of human rights policy and associated due diligence

•

Published Aletheia Framework

Human rights and anti-slavery

Our human rights policy sets out our commitment to protecting the human rights of our employees, and those who may be impacted by the operations, products and services in our value chain. We operate in accordance with human rights and humanitarian law through strict compliance to strategic export laws in the countries where we operate, particularly in the sale of products with dual use or defence application. Our due diligence activities to identify, assess, mitigate and prevent human rights related risks are embedded within our enterprise risk management system (see page 46) and global governance framework. Compliance is devolved to the relevant business functions and expertise, including export control, procurement and human resources.

During 2020, we initiated a review of our human rights policy and associated due diligence procedures, including a comprehensive benchmarking of industry practice, potential emerging legal requirements and voluntary guiding frameworks. Through this, we have identified four focus areas for future activity: rights of employees; communities local to operations; business relationships in the supply chain; and the sale and use of products and services. We expect to publish an updated human rights policy during 2021.

Find more information on our anti-slavery and human trafficking statement; Group policies & materials stewardship page at rolls-royce.com

For more information on our ethics approach see the Safety, Ethics & Sustainability Committee report on page 101 or view 'At our Best: Our Approach' document available at rolls-royce.com

Building trust in artificial intelligence with our Aletheia Framework

Rolls-Royce has developed an ethics for artificial intelligence (AI) framework, which could help gain society's trust of AI technology and accelerate the next generation of industrialisation, known as industry 5.0. This is a method that any organisation can use to ensure the decisions it takes to use AI in critical and non-critical applications are ethical, including the first step-by-step process for ensuring the outcomes of AI algorithms can be trusted. We have made the Aletheia Framework publicly available for the benefit of other companies and organisations, including subject matter experts and not-for-profits, to support increased use and public trust in AI.

PRINCIPAL RISKS

COVID-19 created exceptional circumstances in civil aviation in 2020. Consequently, we reviewed the principal risks and how we manage them in light of COVID-19 at both the half-year and year-end. In our 2019 Annual Report, we identified infectious disease as a root cause of our Business Continuity risk and a reduction in air travel and customer disruption as root causes of our Market and Financial Shock risk. As a result, additional actions and controls have been identified and implemented to mitigate the impact to the Group and protect our people and businesses.

Our approach to emerging risks has also been dominated by COVID-19 and our response to the pandemic. We have considered many emerging risks as a result of COVID-19, with regard to the changing risk landscape and the most appropriate response.

Our risk and internal control system

The Board has established procedures to manage risk and oversee the risk management system (RMS). The Board has also established procedures to determine the nature and extent of the principal and emerging risks the Group is willing to take in order to optimise its commercial opportunities and achieve its long-term strategic objectives. The Audit Committee reviews the Group's internal financial controls which form a subset of the broader set of controls. Financial reporting controls are identified and subject to periodic review by the Group's internal control team. The Audit Committee, on behalf of the Board, performs an annual review of the RMS and its effectiveness. During the year, the Board completed a robust assessment of both our principal and emerging risks. Our RMS is designed to identify and manage, rather than eliminate, the risk of failure to achieve business objectives and to provide reasonable, but not absolute, assurance against material misstatement or loss.

How we manage risk

Risks are identified by individuals across all businesses and functions and at many layers of the organisation by considering what could stop us achieving our strategic, operational or compliance objectives or impact the sustainability of our business model. Risk owners assess the risks, likelihood and impact, taking into account current mitigating control activities, identifying where additional activities may be needed to bring the risk within our risk appetite. Risk owners consider the effectiveness of current mitigating control activities in their assessment, supported by different assurance providers including internal audit. These considerations are recorded using a variety of systems and tools depending on the risk area. In managing the identified risks, judgement is necessary to evaluate the risks facing the Group in achieving its objectives, determine the risks that are considered acceptable, determine the likelihood of those risks materialising, assess the Group's ability to reduce the impact of risks that do materialise and ensure the costs of operating particular controls are proportionate to the benefit provided. Risk owners bring the results of their assessment, current risk status and action plans to business, function and other management review forums as often as is required depending on the nature of the risk, for support, challenge and oversight. These forums include the monthly Executive Team and regular Board and Board committee meetings.

At least once a year the Audit Committee, on behalf of the Board conducts a review of the effectiveness of the RMS and where required identifies areas for improvement (more details of this review can be found on page 79).

For key compliance and safety risks, the Group has a set of mandatory policies and training which set out the expectations on employees and the controls in place. Every employee is required, annually, to complete training and confirm that they will comply with the mandatory policies. The consequences of non-compliance are addressed via performance management systems that are linked to remuneration.

During the year, we simplified our policies and guidance and provided support to risk owners in assessing the effectiveness of mitigating controls and on our current risk level relative to our risk appetite. We conducted a Group-wide review into our response to COVID-19 and, as part of this review, we reassessed our risks.

In 2021, we will seek to build on our work this year and embed more of the lessons learned from COVID-19 in our business-as-usual approach. We will continue to improve the quality of our risk assessment and management activities in relation to our restructuring programmes, financial planning and critical decision-making.

COVID-19 and changes in our principal risk levels

The scale and impact of the pandemic and actions taken to control its spread have resulted in some increased risks to and uncertainty in our operations.

Risk level unchanged: We have concluded no change for Product Safety or Compliance given no significant changes to our operational or regulatory landscape during 2020, supported by the output from our relevant assurance and incident reporting frameworks in these areas. We have concluded no change for Climate Change or Cyber given the priority that was already placed on mitigating these risks to our business. Our climate change risks are managed in the same way as other risks. Given the events of 2020, we have concluded that the most critical risk is the impact of our products and services on the environment and have revised our principal risk description accordingly as set out on page 48. More detail on our approach to climate change can be found on page 34. Given the criticality of protecting our business against cyber threat, additional mitigations, including the strict safeguards required to be in place to enable more of our employees to work from home, were carefully considered as part of our COVID-19 response.

Increased risks: COVID-19 itself, subsequent changes to our ways of working in our facilities and from home, and indirect changes due to our restructuring have increased our People Safety and Talent and Capability risks. Business Continuity increased as our supply chain may face difficulties in fulfilling requirements due to the pandemic. COVID-19 has caused us to reconsider the nature of our Competitive Environment and the likelihood and impact of a Financial or Market Shock. Our Political risks have increased due to changes in a various geopolitical environments across the globe both independent of and related to the pandemic. We have reset our restructuring targets as a result of COVID-19, which may be harder to meet than previously assessed.

Other specific risks

Human capital: our approach to human capital risks forms part of Enabling our People on page 42. More detail is included in our People and Culture section on pages 40 to 44.

Human trafficking and slavery: our approach is set out under the human rights and anti-slavery section on page 45.

Principal risks

Our principal risks are identified and managed in the same way as other risks. Principal risks are owned by at least one member of the Executive Team and subject to a review at an Executive Team meeting at least once each year, before a review by the Board or a Board committee.

Changes were made at the half-year to our principal risks due to COVID-19 and these changes remain relevant at the year-end. In particular: Market and Financial Shock were split into two separate risks, and Major Product Programme Delivery has been incorporated within Competitive Environment. Our current principal risks (including those most significantly impacted by COVID-19) together with how we manage them, how we assure them (by activities and functions other than internal audit) and the Board and Board committees providing oversight are set out in the table below.

Emerging risks

We continue to review additional emerging risks that could significantly impact or challenge our current strategy and business model. Any emerging risks identified have been recorded in our RMS and are being managed and monitored alongside our existing risks.

Following the UK's exit from the European Union on 31 January 2020 and the trade deal announced in December 2020, we continue to review the details of the agreement and to ensure there is no interruption in our service to customers. We continue to work closely with the UK Government and relevant trade bodies to ensure they are aware of our priorities.

Change in risk level in 2020 (last 12 months including changes to risk level resulting from COVID-19 and our response): ↑ Increased <> Static ↓ Decreased + New risk

HOW WE MANAGE PRINCIPAL RISKS

RISK	CONTROLS	ASSURANCE ACTIVITIES AND PROVIDERS	OVERSIGHT FORUM	CHANGE
Safety Failure to: i) meet the expectations of our customers to provide safe products; or ii) create a place to work which minimises the risk of harm to our people, those who work with us, and the environment, would adversely affect our reputation and long-term sustainability.	**Product:** — Our product safety management system includes activities designed to reduce our safety risks as far as is reasonably practicable and to meet or exceed relevant company, legal, regulatory and industry requirements. — We verify and approve product design. — We test adherence to quality standards during manufacturing. — We validate conformance to specification for our own products and those of our suppliers. — We mandate safety awareness training. — We use engine health monitoring to provide early warning of product issues. — We take out relevant and appropriate insurance.	**Product:** — Product safety assurance team — Technical product life cycle audits	— Safety, Ethics & Sustainability Committee — Product safety boards	<>
	People: — Our HSE management system includes activities designed to reduce our safety risks as far as is reasonably practicable and to meet or exceed relevant company, legal, regulatory and industry requirements. — We reinforce our journey to Zero Harm. — We use our crisis management framework.	**People:** — Safety case interventions — HSE audit team	— Safety, Ethics & Sustainability Committee	↑

RISK	CONTROLS	ASSURANCE ACTIVITIES AND PROVIDERS	OVERSIGHT FORUM	CHANGE
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 (for example earthquakes, floods); political events; financial insolvency of a critical supplier; scarcity of materials; loss of data; fire; or infectious disease. The consequences of these events could have an adverse impact on our people, our internal facilities or our external supply chain.	– We invest in capacity, equipment and facilities, dual sources of supply and in researching alternative materials. – We provide supplier finance in partnership with banks to enable our suppliers to access funds at low interest rates. – We hold safety stock. – We plan and practise IT disaster recovery, business continuity and crisis management exercises. – We undertake supplier diligence. – We take out relevant and appropriate insurance.	– Investment reviews – Supplier strategy and sourcing reviews – Group security and resilience team	– Audit Committee	↑
Climate change We recognise the urgency of the climate challenge and have committed to net zero carbon by 2050. The principal risk to meeting these commitments is the need to transition our products and services to a lower carbon economy. Failure to transition from carbon-intensive products and services at pace could impact our ability to win future business; achieve operating results; attract and retain talent; secure access to funding; realise future growth opportunities; or force government intervention to limit emissions.	– We invest in i) reducing carbon impact of existing products; and ii) zero carbon technologies to replace our existing products. – We balance our portfolio of products, customers and revenue streams to reduce our dependence on any one product, customer or carbon emitting fuel source. – We acknowledge and communicate our role in the problem and the solution, and the actions we are taking to enact a credible plan of action in line with societal expectations.	– Strategic planning – Innovation hub activities – Investment reviews – Group sustainability team	– Safety, Ethics & Sustainability Committee – Science & Technology Committee	↔

RISK	CONTROLS	ASSURANCE ACTIVITIES AND PROVIDERS	OVERSIGHT FORUM	CHANGE
Competitive environment Existing competitors: 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. Existing products: failure to achieve cost reduction, contracted technical specification, product (or component) life or falling significantly short of customer expectations, 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. New programmes: failure to deliver an NPI project on time, within budget, to technical specification or falling significantly short of customer expectations would have potentially significant adverse financial and reputational consequences. Disruptive technologies (or new entrants with alternative business models): could reduce our ability to sustainably win future business, achieve operating results and realise future growth opportunities.	– We review product life cycles. – We make investment choices to improve the quality, delivery and durability of our existing products and services and to develop new technologies and service offering to differentiate us competitively. – We protect our intellectual property (e.g. through patents). – We monitor our performance against plans. – We scan the horizon for emerging technology and other competitive threats, including through patent searches.	– Strategic planning – Innovation hub activities – Investment reviews	– Board – Science & Technology Committee	↑
Compliance Non-compliance by the Group with legislation, the terms of DPAs or other regulatory requirements in the heavily regulated environment in which we operate (for example, export controls; data privacy; use of controlled chemicals and substances; anti-bribery and corruption; and tax and customs legislation). This could affect our ability to conduct business in certain jurisdictions and would potentially expose the Group to: 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.	– We continuously develop and communicate a comprehensive suite of mandatory policies and processes throughout the Group. – We undertake third party due diligence. – We encourage, facilitate and investigate speak up cases. – We investigate potential regulatory matters. – Our financial control framework activities are designed to reduce financial reporting risks. – We classify data to meet internal and external requirements and standards.	– Compliance teams	– Safety, Ethics & Sustainability Committee	↔

RISK	CONTROLS	ASSURANCE ACTIVITIES AND PROVIDERS	OVERSIGHT FORUM	CHANGE
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 cyberspace.	– We deploy web gateways, filtering, firewalls, intrusion, advanced persistent threat detectors and integrated reporting. – We test software. – We use our crisis management framework.	– Group cyber security team and security operations centre	– Data security committee	<>
Market shock The Group is exposed to a number of market risks, some of which are of a macroeconomic nature (e.g. economic growth rates) and some of which are more specific to the Group (for example, reduction in air travel or defence spending, or disruption to other customer operations). A large proportion of our business is reliant on the civil aviation industry, which is cyclical in nature. Demand for our products and services could be adversely affected by factors such as current and predicted air traffic, fuel prices and age/replacement rates of customer fleets.	– We monitor trends, market demand and future market forecasts and make investment choices to maximise the related opportunities. – We incorporate trends, demand and other dependencies in our financial forecasts. – We balance our portfolio with the sale of original equipment and aftermarket services, providing a broad product range and addressing diverse markets that have differing business cycles.	– Annual target setting and strategic planning – Investment reviews	– Board	↑
Financial shock The Group is exposed to a number of financial risks, some of which are of a macroeconomic nature (for example, foreign currency, oil price, interest rates) and some of which are more specific to the Group (for example, liquidity and credit risks). Significant extraneous market events could also materially damage the Group's competitiveness and/or creditworthiness and our ability to access funding. This would affect operational results or the outcomes of financial transactions.	– Our financial control framework activities are designed to reduce financial reporting risks. – Group strategic planning process. – We incorporate trends, demand and other dependencies in our financial forecasts. – We analyse currency and credit exposures and include in sourcing and funding decisions. – We develop, review and communicate treasury policies that are designed to hedge residual risks using financial derivatives (covering foreign exchange, interest rates and commodity price risk). – We raise finance through debt and equity programmes. – We hedge with reference to volatility in external financial markets.	– Annual target setting and strategic planning – Finance risk committee	– Audit Committee	↑

RISK	CONTROLS	ASSURANCE ACTIVITIES AND PROVIDERS	OVERSIGHT FORUM	CHANGE
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.	– We develop Group and country strategies and consider associated dependencies. – We horizon scan for political implications and dependencies including around Brexit. – We include diversification considerations in our investment and procurement choices.	– Strategic planning – Brexit steering group – Investment reviews – Supplier sourcing and strategy reviews – Government relations teams	– Board	↑
Restructuring Failure to deliver our restructuring, 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.	– We develop, implement and review status of restructuring programme and project plans including on M&A, transformation and restructuring activities. – We maintain knowledge management systems. – We simplify the processes in our management systems whilst ensuring we comply with our legal, contractual and regulatory requirements.	– Strategic planning – Executive Team restructuring and transformation reviews	– Board	↑
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 would threaten the delivery of our strategies.	– We undertake succession planning and monitor the talent pipeline. – We survey employee opinion. – We develop, implement and review strategic resourcing plans.	– People leadership team	– Nominations & Governance Committee	↑

GOING CONCERN AND VIABILITY STATEMENTS

GOING CONCERN STATEMENT

Overview

The Group operates an annual planning process. The Group's plans and risks to their achievement are reviewed by the Board and once approved, are used as the basis for monitoring the Group's performance, incentivising employees and providing external guidance to shareholders.

The processes for identifying and managing risk are described on pages 46 to 51. As described on these pages, the risk management process, and the going concern and viability statements, are designed to provide reasonable but not absolute assurance.

Given the economic uncertainty of the COVID-19 pandemic, and taking into account the recent guidance issued by the FRC, the Directors have undertaken a comprehensive going concern review over an eighteen-month period to September 2022, considering the forecast cash flows of the Group and the liquidity headroom available over that eighteen-month period. The Group has modelled two scenarios in its assessment of going concern which have been considered by the Directors, along with a likelihood assessment of these scenarios, being:

- base case, which reflects the Directors' current expectations of future trading; and
- severe but plausible downside scenario, which envisages a 'stress' or 'downside' situation.

Further details, including the analysis performed and conclusion reached, are set out below.

Background

The COVID-19 pandemic has had a significant impact on the Group, with the Civil Aerospace and ITP Aero businesses being the most significantly impacted. Uncertainty remains over the severity, extent and duration of the disruption caused by the COVID-19 pandemic and therefore the timing of recovery to pre-crisis levels. Safeguarding the health and wellbeing of our people and protecting our business have been at the heart of our decision-making from the outset of this pandemic. During 2020, we have taken decisive action to reduce cash expenditure and maintain liquidity through the following measures:

- A number of proactive steps starting in March 2020, to conserve cash, which delivered more than £1.0bn in-year cash cost savings compared to our pre COVID-19 cash costs in 2020. These savings were delivered through cutting non-critical capital expenditure, minimising discretionary costs, including projects, consulting spend, professional fees and sub-contractor costs, reviewing and rephasing R&D spend, together with a temporary 10% salary reduction for our senior management, and making use of the UK Government's Coronavirus Job Retention Scheme.
- The final shareholder payment in respect of 2019 was not recommended and there will be no shareholder payment in respect of 2020.
- In May 2020, the Group launched a major restructuring programme to reshape and resize the Group and in particular, the Civil Aerospace business. This will remove at least 9,000 roles across the Group, with forecast annualised savings of over £1.3bn by the end of 2022. At 31 December 2020, approximately 7,000 roles had been removed across the Group.
- In August 2020, the Group secured a £2bn term-loan facility, 80% of which is guaranteed by UK Export Finance (UKEF). This is repayable in August 2025.
- In October 2020, the Group launched a rights issue which was completed in November 2020, raising £2bn of proceeds.
- In October 2020, the Group completed a £2bn bond issuance with maturities in 2026 and 2027 and secured a new £1bn loan facility that matures in October 2022.

Whilst vaccination programmes are now underway across the globe, uncertainties remain in respect of more contagious variants of the virus and the potential impact of this on the timing of recovery of demand, in particular in relation to the civil aviation industry. The actions we have taken during 2020 have been necessary to right-size the business to achieve a longer-term sustainable cost base that is fit for purpose in a post COVID-19 environment, as well as securing additional funding to provide sufficient liquidity headroom for the Group.

Going concern assessment

In assessing the adoption of the going concern basis of accounting in the Company and Consolidated Financial Statements, the Directors have considered the FRC Company Guidance (updated 20 May 2020) (COVID-19), which has encouraged companies to assess current forecasts with more vigour, and to consider the impact of different potential scenarios along with a likelihood assessment, taking into account both the uncertainty and the likely success of any realistic mitigations. In adopting this more vigorous approach, the Directors have assessed the Group's future financial performance, cash flows and liquidity headroom available over an eighteen-month period to September 2022, taking into account a base case and a severe but plausible downside scenario. The Directors have paid attention to the impact of the COVID-19 pandemic on the Group, particularly on the Civil Aerospace and ITP Aero businesses, which have been the most significantly impacted, recognising the challenges of reliably estimating and forecasting the effects of COVID-19 on the civil

aviation industry, as well as the extent and timing of recovery to pre-crisis levels. Key areas of estimation uncertainty include:

- The magnitude of the impact on EFHs and consequently cashflows from the aftermarket business. The estimates in respect of EFHs and future recovery are influenced by assumptions in respect of:
  - the roll-out of vaccination programmes across the globe and their ability to deal with different variants of the COVID-19 virus;
  - the extent and timing of the easing of restrictions on cross-border movement, including quarantine rules; and
  - the recovery rate of flying hours with a potential growth in the number of people holidaying in their home country, and the increased use of video conferencing reducing the need for business travel.
- The extent of the impact of the pandemic on our customers, and consequently the purchase new aircraft, and/or renew of after-market contracts in the future.
- A shift towards more efficient, lower-cost aircraft as airlines look to recover post COVID-19, leading to a risk of higher aircraft retirements in the future.
- Right-sizing the business is underpinned by the assumed size needed to meet future demand.

Given these estimation uncertainties, the Directors believe it is appropriate to provide additional disclosure of the key COVID-19 related assumptions underpinning the base case and severe but plausible downside scenario, as set out below.

Base case scenario

The Group's base case scenario assumes a deep impact on the Civil Aerospace and ITP Aero businesses, with a slow and gradual recovery in demand in 2021. Whilst new variants of the COVID-19 virus create some uncertainty, vaccination programmes are successfully rolled out and/or mass airport testing is introduced to alleviate quarantine restrictions in place across many countries. Widebody flying hours returns to 55% of the pre-crisis baseline in 2021 and approximately 80% in 2022, with slower growth to a full recovery to 2019 levels of widebody activity by the end of 2024 based on industry data.

The Civil Aerospace and ITP Aero forecast assumes:

- **flying hours of widebody aircraft** are 55% of 2019 level in 2021 recovering to 80% of 2019 level in 2022 (based on year averages);
- **flying hours of business aviation** are 2% above 2019 level in 2021 and increase to 10% above the 2019 level in 2022 (based on year averages);
- **widebody OE engine sales** reduce from 450 in 2019 to 187 in 2021 (42% of 2019 level) before increasing to 204 in 2022 (45% of 2019 level);
- **widebody spare engine sales** are 80% of 2019 level in 2021 and 75% of 2019 level in 2022;
- **business aviation engine sales** are 54% of 2019 level in 2021 increasing to 88% of 2019 level in 2022;
- **newer aircraft fleets** (A350, A330neo and 787) recover at a faster pace than older fleets due to the economics and investment value of the aircraft;
- **older aircraft fleets** (A330, A380 and 777) recover on a slower, more varied profile taking into account regional market recovery and unique market dynamics; and
- **the pressure on the transitions market,** driven by new aircraft delivery and volume of surplus assets, results in an elongation in transition time to ~24 months.

Severe but plausible downside scenario

As noted above, due to the inherent uncertainty over the extent and duration of the disruption caused by the COVID-19 pandemic and therefore the timing of recovery of civil aviation to pre-crisis levels, the Directors have also considered a severe but plausible downside scenario.

This severe but plausible downside is based in principle on a general assumption that recovery remains subdued due to ongoing infection rates and an increase in new variants of the COVID-19 virus, with a slower recovery in demand compared with the base case. Restrictions on travel between countries remain in place across many parts of the world during the first part of 2021, with a gradual recovery of the global economy and the Group taking place once those restrictions are lifted.

The resulting key underlying COVID-19 specific assumptions included in the severe but plausible downside scenario in relation to each of the Civil Aerospace and ITP Aero businesses are as follows:

- **flying hours of widebody aircraft** are 45% of 2019 level in 2021, recovering to 70% of 2019 level in 2022 (based on year averages);
- **flying hours of business aviation** are 1% above 2019 level in 2021 and increase to 8% above 2019 level in 2022 (based on year averages);
- **widebody OE engine sales** are 28% of 2019 level in 2021 before falling to 26% of 2019 level in 2022;
- **widebody spare engine sales** are 20% of 2019 in 2021 and remain at 20% of 2019 in 2022;
- **business aviation engine sales** are 54% of 2019 level in 2021 increasing to 80% of 2019 level in 2022;
- **newer aircraft fleets** (A350, A330neo and 787) recover at a faster pace than older fleets due to the economics and investment value of the aircraft;
- **older aircraft fleets** (A330, A380 and 777) recover on a slower, more varied profile taking into account regional market recovery and unique market dynamics; and
- **the pressure on the transitions market,** driven by new aircraft delivery and volume of surplus assets, results in an elongation in transition time to ~24 months.

Liquidity and borrowings

At 31 December 2020, the Group had liquidity of £9.0bn, including cash and cash equivalents of £3.5bn and undrawn facilities of £5.5bn.

The Group's committed borrowing facilities at 31 December 2020, March 2021 and September 2022 are set out below. None of the facilities are subject to any financial covenants or rating triggers which could accelerate repayment.

(£m)	31 Dec 2020	March 2021	September 2022
Issued Bond Notes [1]	4,634	4,634	3,995
Bank of England Commercial Paper [2]	300	–	–
Other loans	87	87	61
UKEF Loan [3]	2,000	2,000	2,000
Revolving Credit Facility [4]	2,500	2,500	2,500
Bank Loan Facility [5]	1,000	1,000	1,000
Total committed borrowing facilities	**10,521**	**10,221**	**9,556**

[1] The value of Issued Bond Notes reflects the impact of derivatives on repayments of the principal amount of debt. A €750m (£639m) bond matures in June 2021, a €550m bond matures in May 2024, and the remainder of the bonds mature between October 2025 and May 2028.
[2] The £300m CCFF facility matures in March 2021.
[3] The £2,000m UKEF loan matures in August 2025 (currently undrawn).
[4] The £2,500m Revolving Credit Facility matures in April 2025 (currently undrawn).
[5] The £1,000m bank loan facility matures in October 2022 (currently undrawn).

Taking into account the maturity of borrowing facilities the Group had committed facilities of £10.5bn at 31 December 2020, £10.2bn at the end of March 2021 and £9.6bn will be available throughout the period to September 2022.

Under both of the scenarios modelled by the Directors (as detailed above), the projections indicate that the Group will continue to operate within its available committed borrowing facilities for the next eighteen months to September 2022 whilst maintaining a sufficient level of liquidity headroom when taking into account debt maturities across this eighteen-month period.

Mitigating actions

Mitigations that are within the control of the Directors and deliverable over the short term have been considered by the Directors. Such mitigations include the restriction of capital and other expenditure to only committed and essential levels, reduce or eliminate discretionary spend, reinstate the implementation of pay deferrals and undertake further restructuring.

Other mitigations that could be considered in more severe circumstances, which are not directly in the control of the Directors, include raising other new funding through the bond or bank markets, pursuing a £1bn increase in the existing £2bn UKEF-backed loan and raising further equity. The anticipated £2bn proceeds from business disposals announced in August 2020 have not been included when assessing the going concern, although completion of these disposals is anticipated during 2022 and within the eighteen-month period being considered. Further potential business disposals could be considered if required.

Conclusion

After due consideration of the matters set out above, the Directors consider that the Group has sufficient liquidity headroom to continue in operational existence for a period of at least eighteen months from the date of this report and are therefore satisfied that it is appropriate to adopt the going concern basis of accounting in preparing the financial statements.

VIABILITY STATEMENT

Viability

The viability assessment considers solvency and liquidity over a longer period than the going concern assessment. Our downside scenario uses the same assumptions as the going concern statement and in 2023 to 2025 assumes a slower recovery back to 2019 level than assumed in our base case. The analysis excludes proceeds from disposals and additional funding which have not yet been agreed but, if and when realised, will increase liquidity at least £2bn.

Consistent with previous years, we have assessed our viability over a five-year period which is in line with our five-year annual target setting process. We continue to believe that this is the most appropriate time period to consider as, inevitably, the degree of certainty reduces over any longer period.

In making the assessment, we have used the same base case and severe but plausible downside scenarios and existing committed borrowing facilities as set out in the going concern assessment, with the analysis extended over five years. We have combined additional severe but plausible scenarios that estimate the potential impact of additional principal risks arising over the assessment period, for example: the loss of a key element of the supply chain, a compliance breach, a trade war between major trading blocs, failure to deliver the expected benefits from our restructuring activities, the impact of climate change or a significant product safety event. The impact on viability of some of the risks modelled, such as Business Continuity and Political risk, has reduced compared to last year due to falling OE volumes and lower EFHs.

The cash flow impacts of these scenarios were overlaid on the five-year forecast to assess how the Group's liquidity and solvency would be affected.

The scenarios assume an appropriate management response to the specific event which could be undertaken and also consider specific activities to improve liquidity such as raising additional funds, reducing expenditure and divesting non-core businesses.

Reverse stress testing has also been performed to assess the severity of scenarios that would have to occur to exceed liquidity headroom, including a scenario where existing borrowing facilities could not be refinanced as they mature.

On the basis described above, the Board confirms that it has a reasonable expectation that the Company will be able to continue in operation and meet its liabilities as they fall due over the next five years. In making this statement, the Directors have made the following key assumptions:

- the Group is able to refinance maturing debt facilities and draw-down existing available facilities as required;
- the Group has access to global debt markets and expects to be able to refinance these debt facilities on commercially acceptable terms;
- the Group's medium and long-term financing plans are designed to allow for periods of adverse conditions in world capital markets but not a prolonged period (e.g. 12 months) where debt markets were effectively closed to the Group;
- that implausible scenarios do not occur. Implausible scenarios include either multiple risks impacting at the same time or where management actions do not mitigate an individual risk to the degree assumed; and
- that in the event of one or more risks occurring (which has a particularly severe effect on the Group) all potential actions (such as but not limited to, restricting capital and other expenditure to only committed and essential levels, reducing or eliminating discretionary spend, reinstating the implementation of pay deferrals, raising additional funds through debt or equity raises, executing disposals and undertaking further restructuring) would be taken on a timely basis. The Group believes that it has the early warning mechanisms to identify the need for such actions and, as demonstrated by our decisive actions in 2020, has the ability to implement them on a timely basis if necessary.

s172 STATEMENT

The Board believes that, individually and together, they have acted in the way they consider, in good faith, would be most likely to promote the success of the Company for the benefit of its members as a whole having regard to the stakeholders and matters set out in s172(1)(a)-(f) of the Companies Act 2006 in the decisions taken during the year ended 31 December 2020. This statement sets out the Board's approach to decision-making, its stakeholder engagement, why its stakeholders matter and some key decisions made during 2020. To give greater understanding to this, we have provided clear cross-referencing to where more detailed information can be found in this Annual Report.

When making key strategic decisions, the Board considers for each matter the likely consequences of any decision in the long term, identifies stakeholders who may be affected, and carefully considers their interests and any potential impact as part of the decision-making process. The areas the Board focused on during the year and the key decisions made are set out on pages 70 and 71 and our report on stakeholder engagement during the year is on pages 72 to 73.

THE BOARD'S APPROACH

We remain a particularly active Board, with a heightened degree of oversight and scrutiny during the COVID-19 pandemic to ensure we are aware of the impacts on all our stakeholders.

Purpose, vision and strategy (see page 9)

- purpose refined during the year to reflect our sustainability ambitions
- we have a clearly articulated purpose recognising our role in society
- our key focus in the near term was refined in response to COVID-19
- corporate narrative aligned with both vision and strategy

Group policies (see page 45)

- annual review of Group policies
- mandatory ethics training focused on decision-making

Culture and people (see page 40)

- oversight of implementation of strict safety measures to protect against the spread of COVID-19 at our sites around the world (see pages 40 to 41)
- increased our focus on health and wellbeing (see pages 40 to 41)
- tracked progress and sought feedback on our people framework throughout the restructuring activity in 2020 through reports from the management team and the Employee Champions (see pages 41 to 44)
- Code of Conduct clearly communicated and enforced (see page 45)

Risk and internal control framework (see page 46)

- additional actions and controls have been identified and implemented to mitigate the impact of COVID-19 on the Group and to protect our people and businesses (see page 46 to 51)
- COVID-19 created exceptional circumstances in civil aviation in 2020. Consequently we reviewed all risks and mitigating actions at both the half-year and year-end (see pages 46 to 51)
- reviewed process for the preparation of both going concern and viability statements (see pages 52 to 55)

Board structure (see page 62)

- role of the Board and its matters reserved reviewed annually
- clear focus of the Board's Committees, annual review of terms of reference
- clearly defined roles and responsibilities for Board members and the Company Secretary

'freedom within a framework' (see page 63)

- communication of freedom within a framework culture

OUR PURPOSE
At Rolls-Royce, we pioneer the power that matters to connect, power and protect society

DELIVERED WITH INTEGRITY
We discuss how we maintain high standards of ethics and compliance and their fundamental importance to our continued success on page 45

OUR STAKEHOLDER ENGAGEMENT

Our activities are global and complex. Touching upon a wide variety of stakeholders, we aim to create trusted relationships to understand the needs of all our stakeholders so we can continue to deliver value and build a resilient business. This was important in a challenging year for our end markets and for civil aviation in particular.

See pages 72 to 73 for the Board's engagement with our stakeholders and page 12 for our business model.

Customers

In a year of significant impact, particularly in the civil aviation industry but also in other end markets, we had continuous dialogue with our customers. Focusing on the needs of our customers is critical to the success of our business. We maintain a high degree of customer intimacy in order to anticipate and understand the future power needs of our customers, building on our years of experience in delivering for our markets. We collaborate and innovate with our customers to improve product performance and value and to promote best practice in the industry to combat issues such as climate change.

Investors

It was critical that our existing and potential institutional investors, retail shareholders and bond holders understood our strategy and rationale as we sought their support for our rights issue and bond issuance in 2020. Continued access to capital is vital to long-term performance of our business. We work to ensure that our investors and investment analysts have a strong understanding of our strategy, performance, ambition and culture.

Employees

Employee engagement is critical to our success. During the fundamental restructuring in the year we continued to work to create a diverse and inclusive workplace where every employee can reach their full potential and be at their best. We engage with our people to ensure we are delivering to their expectations, supporting wellbeing and making the right business decisions. This ensures we can retain and develop the best talent.

Partners and suppliers

Our external supply chain and our suppliers are vital to our performance. We engage with them to build trusting relationships from which we can mutually benefit and to ensure they are performing to our standards and conducting business to our expectations. Business continuity discussions formed a vital part of the dialogue this year.

Communities

We were challenged in our traditional activities and sought new ways to enhance engagement with young people and disadvantaged groups who have been significantly impacted by disruption to education and social activities this year. We are committed to building positive relations with the communities in which we operate. We support communities and groups, local and relevant to our operations.

Governing bodies and regulators

Considerable engagement was undertaken with governments and regulators in this unprecedented year and we continue to work with them as we prepare for recovery in the civil aviation sector. We engage with national governments, national/transnational agencies and key politicians and regulators to ensure that we can help shape policy, have licence to operate, attract funding, enable markets and ultimately win business. We work with governments globally where we have operations or future business opportunities.

OUR PRINCIPAL DECISIONS IN 2020

More discussion on these decisions can be found in the Corporate Governance Report on Board focus on pages 70 to 71.

Redefining the strategy

The COVID-19 pandemic had a sudden and material impact on the Group and on our markets globally and this led the Board to refine the strategy during the year. This is further explained in the Chairman's statement and Chief Executive's review (see pages 4 to 8) and also articulated in our purpose, vision and strategy (see pages 9 to 11). The Board considered all stakeholders as part of these considerations and received reports from the Executive Directors on their discussions with and feedback from employees, customers, suppliers & partners, governments and advisers.

As part of these discussions the Board strengthened the Group's commitment to combatting climate change recognising that we have a key role to play in creating a more sustainable future.

COVID-19 and rebuilding the balance sheet

The sudden and material impact of the COVID-19 pandemic resulted in a sharp deterioration in the financial performance of Civil Aerospace and, to a much lesser extent, in Power Systems. The Board committed to undertake a number of significant actions to mitigate the financial and operating impact in order to strengthen the financial position of the Group and in doing so considered the long-term interests of employees, customers, suppliers & partners and future and current investors.

Fundamental restructure and cost savings

The Board had oversight of the decisions by the Executive Team to fundamentally restructure the Group and of the impact these decisions had on employees and local communities in particular – noting discussions with UK Trade Unions and the European Works Council as well as with Government Ministers and Members of Parliament. The review of the UK defined benefit pensions scheme was also noted (see page 42), the decision supported the Group's future financial position and ensured a more equal level of total reward going forward.

Strategic acquisitions

The Group made two acquisitions to accelerate the delivery of its electrification strategy. Both acquisitions remain in line with the Group's net zero emissions and post-pandemic recovery strategy.

Payments to shareholders

The Board made the difficult decision, in light of the uncertain macroeconomic outlook resulting from the COVID-19 pandemic, to not recommend a final payment to shareholders nor an interim shareholder payment. Further information on this can be found on pages 5 and 211.

Strategic Report
signed on behalf of the Board

Warren East
Chief Executive

11 March 2021