

# Rolls-Royce Holdings PLC 2021 Full Year Results

Thursday, 24<sup>th</sup> February 2022

# Introduction

# Isabel Green

Head of Investor Relations, Rolls-Royce Plc

Hello and welcome everyone to our 2021 Full Year Results presentation. I am Isabel Green, Head of Investor Relations, and I am joined today by our Chair, Anita Frew; our CEO, Warren East; and our CFO, Panos Kakoullis. Before we present our results, I will hand over to Anita to say a few words on our other announcement this morning.

# **New CEO Announcement**

Anita Frew

Chair, Rolls-Royce Plc

Thank you, Isabel, and good morning, everyone. You will have seen our announcement this morning that Warren plans to step down at the end of this year. By then, Warren will have spent nine years on the board and almost eight years as CEO, a relatively long tenure and a tribute to his strength and commitment.

As a result, we are now starting an open and transparent search process for Warren's successor. Warren has a real passion for the business, which engenders pride in our people and confidence amongst our stakeholders. In his time at Rolls-Royce, he has created a dramatically different business and has positioned us well to generate substantial value from the drive to net zero.

Finally, I would just like to thank Warren on behalf of the whole board for his tremendous work. It is not over yet though. I know that while we carry out the search for his successor, Warren will continue to lead Rolls-Royce with all the dedication he has shown throughout his time at Rolls-Royce.

I will now hand back to Isabel to introduce today's results.

# Overview

#### Isabel Green

Head of Investor Relations, Rolls-Royce Plc

Thank you, Anita. Today's presentation will begin with a summary of our improving performance and an update on our commitments from Warren, before handing over to Panos for a more detailed review of our financial results. Warren will then conclude with an update on our ambitions to sustainable growth and value creation. In all, our presentation should take around 40 minutes, leaving time at the end for Warren and Panos to take your questions.

#### **Safe Harbour Statement**

Before we begin, please take note of the safe harbour statement on slide two. As always, the full set of results materials can be download from the Investor Relations section of our website. I will now hand over to Warren.

# **2021 Performance Summary**

# Warren East

Chief Executive Officer, Rolls-Royce Plc

Thank you and good morning, everyone, and we appreciate you joining us on what I know is a very busy day for many of you. Now, as Anita mentioned, I have decided to step down at the end of this year. I am extremely proud of what all of us at Rolls-Royce have achieved since I joined the company. Rolls-Royce today is culturally and strategically a very different business. We are also a completely different organisation commercially and operationally, much more efficient, and productive, with sound operational gearing that will create value from additional growth. I am sure you will see some of that in our results presentation this morning. You will also see that we have a clear vision and direction to lead the transition to net zero, and we are already seizing opportunities with tremendous future potential.

I understand no Chief Executive's job is ever really complete, but I feel that with the advances we have made and the momentum and energy we have shown, and our firmer financial foundations, now is the right time to look for the future. Now, there will be a time for reflection at a later date, but right now, as you would expect, I am fully committed to leading the business, so let us get on and we will talk about that.

#### COP<sub>26</sub>

So let us look where we have got to and turn to the results for last year. I would like to start by celebrating what an important year it has been for Rolls-Royce and to think about some of my own personal highlights from 2021. Now, in November I joined my colleagues at COP26. A few years ago we would not have even had Rolls-Royce at a climate conference, but today our business and the future of our business is all about the energy transition.

In the picture on the left of the slide, I am with the Nuclear for Climate team. You can see they represent the young workers of today and they are drawn from multiple nations all working in the nuclear industry. They are all really passionate about protecting the world, their world, from the negative impacts of climate change, and they are concerned about the positive contribution that nuclear can make to the future energy mix. It was particularly encouraging to speak with them and many others at COP26 about the need for our technologies in this space, and in particular the role for our SMRs.

Furthermore, we showcased a number of our technologies in the green zone, as you can see in the photo on the top right of the slide. Exhibits included our double world record-breaking 'Spirit of Innovation' aircraft, which helped visitors to understand how we at Rolls-Royce can be part of the climate change solution.

However, it is not just our new businesses that we should celebrate, our established businesses are also driving our journey to net zero. And the image here on the bottom right shows the launch of one of our latest MTU hydrogen fuel cells in a microgrid at our facilities in Friedrichshafen. That is it being switched on for the very first time. It took six months for the microgrid demonstrator to go from decision to commissioning of the first MTU battery energy storage system, and that is a great example of our agility and how quickly we are delivering new solutions.

# **Operational Highlights**

Civil Aerospace restructuring

Let us move on now to our 2021 operational performance highlights. I begin by focusing on Civil and, in particular, the restructuring programme. This was an enormous undertaking, building on earlier productivity and efficiency programmes; it has really transformed our Civil Aerospace business. The picture here is of programmable machine tools at our Turbine Blade Facility in Derby. These machines have been transferred across from Crosspointe in the US, and they can easily switch between designs and have absolutely minimal manual oversight. This means that one person can now do the work of several previously, and what used to be a time-consuming, manual setup is now fast, it is largely software, creating flexibility as well as much greater throughput. And that is just one example.

Key award in Defence with B-52

Moving on, in Defence we are very proud to have been awarded the B-52 Engine Replacement Program in the US. This award secures new business for the coming decades after entry into service in the late 2020s and it is a huge achievement for our defence colleagues. And I will talk more about defence opportunities later in the presentation.

Order intake accelerated in Power Systems

In Power Systems, you will remember at the half year we were seeing orders well ahead of the year before, and in the second half of 2021, order intake accelerated, with record order intake in the fourth quarter, giving us the largest order book in Power Systems' history.

Two world records with Spirit of Innovation

Moving to the bottom of the slide. In Rolls-Royce Electrical, we are thrilled with the success of our two world records with the 'Spirit of Innovation' aircraft. This demonstrates the real pace at which electrical technology is accelerating into the world of aviation and creating new opportunities. We are excited to be exploring the varied applications for air mobility.

Successful SMR fundraising & next phase commencement

In the middle at the bottom, in Rolls-Royce SMR, as you know, we decided some time ago to focus our civil nuclear activities on SMRs, small modular reactors. In the second half of the year, we secured UK government grant support, alongside equity investment to progress the project to the next phase.

£2bn total disposal proceeds expected

Last, in the bottom corner, but certainly not least, we are making good progress with disposals. Back in October 2020, we committed to undertaking a series of disposals to reshape our balance sheet. Three of these disposals have already completed and the sale of ITP Aero is agreed; it is announced, and it is expected to complete this year.

# **Financial Summary**

Let us have a look at our financial summary. We have three great outcomes from the progress we made in 2021: one, we have improved financial performance; two, we are delivering on our commitments; and three, we are still investing for growth and sustainable value. Our cost reductions and market growth have helped us to return to profitability in

2021, and while we still had a cash outflow in the year, you can see from the histogram on the left of the slide, this was substantially improved from 2020 and is ahead of expectations.

As mentioned, a moment ago, our restructuring programme has delivered more than £1.3 billion run-rate savings and our disposals are on track to achieve the total proceeds of around £2 billion. Our sustained investment in research and development is enabling us to deliver market-leading technology focused on net zero, and this unlocks opportunities to deliver long-term and sustainable value in both our established businesses and the new ones that we are reporting on separately for the first time today. Our ability to maintain investment, even in these difficult times, is supported by a strong liquidity position, with no debt maturities before 2024.

# **Restructuring Update**

Now, moving on to the next slide, I am going to add some colour on just a couple of topics. Let us start with the restructuring programme. The activity here was mostly about Civil Aerospace, it was about right-sizing in the short term and then taking advantage of efficiency and productivity enhancements so that we can scale up output without a corresponding increase in operating costs. Not only have we exceeded our run-rate savings target and we have removed more than 9,000 roles across the Group, we have done so one year ahead of schedule. Our Civil business operation is now about a third smaller than it was in terms of footprint and headcount, and that makes Civil leaner, a much more efficient and productive business, and one that is ready for future growth. The focus now is on ensuring that the benefits we have achieved are sustained.

#### **Executive Team Changes**

Now some pictures of friendly faces. Before passing over to Panos, I would just like to take a moment to focus on our executive team. The real breadth of experience and expertise is enhanced by these recent additions. So last May, we welcomed Panos Kakoullis, our CFO, who joined us from Deloitte with over 30 years' experience of managing large, multi-national, multi-disciplinary teams, helping major organisations to deliver change.

Top right of the slide, Grazia Vittadini has joined us as Chief Technology and Strategy Officer. Grazia brings to us extensive expertise in both aerospace and the emerging and disruptive technologies from, amongst other things, her 20 years' experience at Airbus, latterly as their CTO.

I think it's important that a balanced team brings a combination of fresh thinking from outside the organisation, but also deep knowledge from within the organisation. It's important also to demonstrate to others internally that career development to the very top level is just part of how we do things around here. So in January this year, we promoted Sarah Armstrong to the world of Chief People Officer. Sarah has been with the Rolls Royce for more than 15 years, most recently as the leader of HR in our Civil Aerospace business where she had a pivotal role in delivering that restructuring programme, I talked about a moment ago.

In January, Rob Watson, President of Rolls Royce Electrical joined our executive team. Rob's been with us for 10 years and over the last four years, he's played a fundamental role in development of our Rolls Royce Electrical business as we invest for more sustainable future.

We have a strong capable and driven executive team and I'm very confident in their ability to deliver our vision for the future. Thank you, and now over to Panos to talk about our financial performance.

# **2021 Financial Performance**

Panos Kakoullis

Chief Financial Officer, Rolls-Royce Plc

# 2021 Full Year Underlying Results

Good morning, everybody and thank you, Warren. We are very proud of our achievements in 2021. Against a backdrop of challenging and unpredictable market conditions, we've delivered improved financial performance that's been driven by cost reduction and market growth. Results, you can see on these slides, where they're all presented on an underlying basis, that's for the continuing businesses in the group.

Revenue, that's stayed steady. It's less than 2% lower from 2020 and we've seen a much more balanced contribution from across our businesses with Civil Aerospace now contributing around 40% of the total. Lower wide-body volumes and lower shop visits in Civil Aerospace were balanced by growth in both Defence and Power Systems.

Operating profit, that was £414 million and that's a £2.5 billion improvement compared to 2020. That reflects the significant cost savings from the restructuring program that was largely focused on Civil Aerospace. Defence performed well and more than covered its increased R&D spend. Power Systems, that grew strongly. It benefited from recovering end markets and better utilisation on the shop floor. The underlying loss of £2 billion in the prior year included £1.3 billion of one-off charges in Civil Aerospace and those was mostly related to the impact of COVID-19.

Free cash flow in 2021, that was an outflow of £1.5 billion, but again that substantially improved on the prior year. We saw great progress on cost reduction, stronger operating performance that included higher flying hour receipts in Civil Aerospace, and much more targeted capital expenditure. The working capital outflow that you see, £800 million, that was mostly driven by concession payments and lower OE deliveries in Civil Aerospace. You can look at the improvement on prior year. Prior year also included the non-repeat of £1.1 billion, the negative impact from the termination of invoice factoring in 2020. On the whole, a very substantial step in the right direction on our recovery journey.

#### Civil Aerospace

If we move on now to the Civil Aerospace, the Civil Aerospace financial performance, again, significantly improved as we neared completion of our restructuring program. Gradual market recovery and the non-repeat of those COVID-related one-off charges from 2020, that also helped enhanced our financial performance.

Overall, revenue is down 10% on prior year. If you break that down, OE revenues were down 29%, reflecting a reduction in engine deliveries as fewer large engines were required to fulfill customer build schedules, while sales of spare engines, well, they increased.

Business aviation OE deliveries were down as we transitioned to newer engine programmes, which are now growing well for the load base. Services revenue was up 6% on the prior year and included £214 million of positive long-term service agreement catch-ups compared with the negative catch-ups of £1 billion in 2020. They also reflected lower shop visit volumes and reduced contributions from the V2 500 engine programme. The underlying operating loss of £172 million were significantly better from the £2.5 billion loss in 2020.

We continue to focus very heavily on those areas that are in our control and we're seeing sustainable cost benefits from that restructuring program.

Our trading cash outflow was £1.7 billion, again a substantial improvement from last year, 2020. That was driven by engine flying hours. They were up 11% compared to the 2020. On fact, second half engine flying hours were up 57% year-on-year as COVID vaccination programmes enabled key routes to reopen although they're still at reduced volume. Lower operating costs, lower CAPEX and working capital outflows in 2021, as well as the non-repeat of that invoice factoring termination in 2020, also contributed to that improvement in cash flow.

#### **Defence**

If we return now to Defence, our Defence business continued to perform well with strong demand for both OE and services driving growth in all of our end markets; that's Combat, Transport, Submarines and Naval. Underlying revenue, that increased by 5% on an organic basis to £3.4 billion, with services revenue up 6% and OE revenue up 3%.

Underlying operating profit was £457 million; that's an increase of 3% compared with 2020. That was driven by sales growth and a positive mix towards higher margin spare parts and spare engine sales. Now, that profit growth occurred despite 28% increase in R&D spend. That was made to support our ongoing product development and growth opportunities ahead of us.

Trading cash flow was £377 million; that gives a cash conversion of around 80%. That's a fairly normal level for our Defence business. The prior year, that trading cash flow, that included an adverse impact from the timing of deposit receipts.

Finally, we have a strong order book in Defence that follows several years of high intake with a five-year average book to bill of 1.1 times and 85% order cover for 2022.

#### **Power Systems**

Moving on now to Power Systems, our end markets recovered well over the course of 2021. The order intake of £3.3 billion was 24% higher than the prior year with a much faster conversion to sales in that business than we would typically see in Defence and Civil Aerospace.

Order growth was strongest in Marine, Defence and Power Generation. Underlying revenue of £2.7 billion was up 3%. Services grew 10% as product utilisation increased; OE broadly flat. Sales were higher in Industrial and Power Generation, partly offset by lower activity in China.

Underlying operating, profit £242 million, up 37%. Operating margin was 8.8%, that's 2.2 percentage points higher than the prior year. That's due to the mix of sales towards higher margin after-market spare parts as well as improved utilisation in our manufacturing facilities. We also experienced lower warranty cost.

Trading cash flow, £219 million, representing a cash conversion of around 90%, despite an increase in inventory related to the global supply chain disruption we experienced in the second half of 2021.

#### **New Markets**

Moving on to new markets, now, we have separated out our early stage businesses, those that got high growth potential. We put them into a distinct reporting segment, New Markets. This gives increased visibility to the investments we're making to address the new opportunities that are being created by the transition to net zero and the energy transition. There are two businesses currently in this segment, Rolls-Royce SMR and Rolls-Royce Electrical. These businesses leverage our existing engineering expertise and capabilities to develop new sustainable products. Rolls-Royce SMR secured £490 million of funding in 2021, including £50 million we committed ourselves. We've already received around £30 million of that funding and the remaining cash inflow, that's going to be phased over the next few years to align with the underlying specific spend.

In 2021, a ramp-up in investment saw R&D costs of £68 million, £16 million of that in SMR and £52 million of that on electrical power and propulsion technology. Over the next five years, we anticipate spending over £1 billion in R&D in these businesses, although our cash spend will be considerably lower due to that third-party funding for SMRs.

New Markets, they're naturally more challenging to forecast, given the pace of customer demand ramp-up and also the regulatory approval process. What is clear though is the fact that the potential opportunities for these businesses are significant. We believe they could generate more than £5 billion of combined annual revenues by the early 2030s.

# **Summary Funds Flow**

If we turn to the next slide, we set out here our Summary Funds Flow. We saw a £1.5 billion cash outflow in the year from continuing operations. That's a significant improvement on the £4.2 billion outflow in 2020, and much better than expectations that we set out at the start of 2021. If you break the movement down, you can break it broadly down into three buckets.

Firstly, we saw an operating performance improvement of around £2 billion. That was thanks largely to our cost savings in Civil Aerospace and also revenue growth in both Defence and Power Systems.

Secondly, our £800 million working capital outflow was £700 million better than 2020. That was mostly due that non-repeat of unwind of invoice factoring. That was partly offset by a planned increase in inventory in Defence and Power Systems to meet both expected sales volume as we went into 2020 and the impact of the global supply chain disruption in Power Systems.

Thirdly, about £100 million of other impacts. That reflected lower CAPEX, partially offset by the higher hedge book close-out costs in the year. Our free cash flow is continuing to improve. The combination of restructuring and growth, driven by recovering end market, is putting us on track to get back to positive cash generation.

# **Rebuilding the Balance Sheet**

Turning now to our balance sheet on the next slide, we are committed to rebuilding our balance sheet and returning to an investment grade credit profile in the medium term. We

are on the pathway to achieve this as we benefit from reducing uncertainty, improving financial performance and our strong strategic focus on the energy transition. We have previously announced four disposals which are expected to generate around £2 billion in total proceeds, including approximately £200 million of retained cash. The final and largest of these disposals, ITP Aero is still expected to complete in the first half of this year, pending the necessary regulatory approval.

Disposal proceeds, together with the underlying free cash flow generated by the Group, will be used to reduce net debt.

We ended the year £5.2 billion of net debt, including £1.8 billion of leases. Our liquidity position is strong. £7.1 billion of liquidity, including £2.6 billion in cash at the end of 2021. Now, that is after we repaid during 2021, the 2021 €750 million bond and also the £300 million COVID corporate financing facility. A strong balance sheet is very important for us. We will balance the pace of that rebuild with the investment opportunities across our portfolio to make sure that we maximise the long-term return for our shareholders.

# **Investments**

Moving on to investments, our technology engineering expertise gives us a critical role in enabling the transition to the low carbon global economy. We have significantly upgraded our approach to analysing investment cases to place an even greater focus on sustainability and broader ESG considerations, whilst maintaining investment discipline. Our investment spend is very much focused on making our existing products compatible with net zero; pioneering new technologies that commit the accelerating demand for cleaner technologies; as well as identifying additional applications for our current portfolio of technologies. It is key that we optimise our investment in order to most effectively deliver our strategy, maximise our return and achieve our net zero commitment. Our investments in both SMRs and electrical propulsion creates net zero solutions and opportunities in new end markets. We have best-in-class products in markets with high barriers to entry and taking advantage of that, generating a health return on our investments, well, that's a priority for us.

## Clear Financial Priorities to Drive and Support our Business Performance

Now, we've seen the 2021 financial performance, I just wanted to recap on the priorities that I set out to you all back in August. As a reminder, three priorities: deliver on our commitments, simplify how we report and invest wisely for the future.

Firstly, delivering on our commitments. Right now, I feel very comfortable that we're making great strides. We've delivered the sustainable savings from our restructuring programme and we continue to make sure that a large proportion of the costs that have gone out, stayed out even as the load grows as demand grows. We've exceeded our £2 billion free cash flow guidance for 2021 by over £500 million. £300 million of that was due to concession slippages and we shared that with you in December. And I'm not going to claim any credit for that. That's not controllable. The rest, though, around £200 million is due to our improved trading and cost performance and surpassed the commitment, despite engine flying hours being worse, frankly, than we expected when we set the guidance right at the start of 2021.

Secondly, we do need to simplify, break down the complexity around our financials. There is progress to be made in having more straightforward financial communications. We've taken some steps already to reduce the complexities – easier-to-understand disclosures, helping

comparability between years and across peers. There is more to come during the course of 2022, by making sure that the changes we make align from the ground-up with how we drive the businesses and reward performance.

And thirdly, we will continue to invest wisely for the future, creating sustainable value. We are at a very exciting point, huge opportunity to lead our market in the journey to net zero. We also have the opportunity to take our innovation and technology into new markets with incremental growth and we won't stop investing in our current products either. There are good near-term returns available from increasing durability and efficiency.

As I said, three things: deliver on the commitments, simplify how we report and invest wisely.

#### 2022 Outlook and Guidance

If we move onto outlook, we are well-positioned to the anticipated growth in our end markets. Despite some challenges around the pace of market recovery, global supply chain disruption and rising inflation, I am confident that we will see continued positive momentum in our financial performance. We expect low-to-mid single-digit revenue growth in 2022 that's supported by a strong order book cover in both Defence and Power Systems and a continuation of gradual improvement in Civil Aerospace, along with an expected increase in spare engine sales.

We expect our operating profit margin to be broadly unchanged as underlying operational improvement is balanced with increased engineering spend to develop sustainable growth opportunities, with a gradual shift in spend towards New Markets, Defence and Power Systems. We expect to generate modestly positive free cash flow in 2022, representing a substantial improvement on 2021. Now, that increase comes despite the concession slips I mentioned earlier going from 2021 into 2022. As has been case the prior years, cash flow will be seasonally weighted towards the second half of the year.

Looking further ahead, long-term revenue growth will be driven by technology and innovation opportunities and rising global demand for sustainable power. This will be supported by well-targeted investment. We aimed to spend around 75% of our investment on lower carbon growth opportunities in the medium term. So a lot of opportunities ahead, a lot of growth from the energy transition, a lot of variables to manage and a much more agile and balanced business geared towards capturing that growth in a profitable and sustainable way.

With that, I hand back to Warren.

# Securing a Sustainable Future

Warren East

Chief Executive, Rolls-Royce Plc

Thank you, Panos. The title on this slide reflects the terminology that I used last month actually at our annual Senior Leadership Conference, sustainable in both senses of the word; given our products and markets, clearly sustainable in terms of climates and impact on the climate change. My internal message was very much more focused on sustainability in the business sense, meaning generating profits and cash from our activities and seeking growth.

From a behavioural point of view for our senior leaders, that means adopting our restless pursuit of ever greater levels of profit and return, holding our heads high, seeking out and capitalising on growth opportunities. I'd like to focus for the next few minutes on how we're driving growth and sustainable value in our established businesses, Civil Aerospace, Power Systems and Defence, before then moving on to the New Markets.

## **Civil Aerospace**

I'll start with Civil. The fundamental restructuring programme that we've delivered means that we now have much lower costs, much improved operational gearing. We can see significant growth in demand in our factories and that's accompanied by only small incremental growth in our operating costs. This is extremely important as we continue to generate value from our large installed base. Around two-thirds of our engines are covered by long-term service contracts that will deliver value way out into the future.

We also have more than half of the market share for new large engines with more than 1,500 on our order book. Our current order book includes 58 Trent XWB engines for Airbus's recently launched A350 freighter. The A350F represents a great opportunity for us to take a share in a market that has been, until recently, dominated by Boeing and GE. We're also seeing fantastic growth opportunities in business aviation, where our family of Pearl engines is now offering market-leading power and efficiency and outstanding low noise and emissions performance.

The slide here shows a picture from Dassault of their Falcon 10X. At the launch, we and Dassault revealed that they've chosen our Pearl 10X engine to exclusively power their brand new flagship aircraft. And Gulfstream have chosen our Pearl 700 to exclusively power their new ultra-long-range business jet, the G800. That's in addition to its use already announced on the G700. Pearl 700 testing is progressing very well and we're now in the final phase of regulatory approvals. And we and Gulfstream are delighted with the results of the flight test program, and we expect to receive certification later this year.

#### **Defence**

So now I'll move on to defence. We're seeing good growth opportunities in this business and that's critical to – this business is critical to protecting people around the world. In 2021, we concluded a multi-year programme of investment to revitalise our facilities in Indianapolis, creating a world-class campus with advanced manufacturing capabilities on a smaller and more efficient footprint. Now, that's a very similar story really, but on a smaller scale, to the restructuring programme that we just spoke about in Civil, baking in operational gearing, which enhances the benefit of future growth.

And this was recognised last year as we secured the award for the highly competitive B-52 engine replacement programme, generating \$2.6 billion of business for the coming decades with entry into service towards the end of this decade. We intend to bring that operational gearing benefit to future growth as well as we pursue further design wins and we remain in a competitive process; for instance, for the Future-Long Range Assault Aircraft programme in the US in partnership with Bell Textron. And a win here would be a very significant driver for our long-term growth in Defence.

Of course, back in the UK, we continue to work with our partners, the Ministry of Defence, BAE Systems, Leonardo and MBDA, on the Tempest programme, with developments including

the recently announced collaboration with Japan on a power system demonstrator. We also continue to support the UK MOD in the collaboration announced last year between the UK, the US and Australia on nuclear submarines.

Looking further ahead, and Defence, of course, is a very long cycle business, we are supporting customer demand for novel products that deliver advances in technology and sustainability. Investment opportunities include areas such as hypersonics, small engines and even power in space.

# **Power Systems**

Now, I'll move on to Power Systems. We saw order intake accelerate in Power Systems with the business achieving the best ever order book in its history. We have a strong, established position with our MTU-brand engines and a loyal sticky customer base of over 40,000 customers. We're focused on supporting the transition to net zero and we've set some challenging targets to carbon dioxide emissions.

For many, that means deploying microgrid solutions, like the one in the picture here, with renewables, storage combined with backup from reciprocating engines. And of course, in future, those reciprocating engines will be powered by synthetic fuels or hydrogen as we continue developing those technologies.

In 2021, we formed a partnership with cellcentric to develop hydrogen fuel cells. Following on from this, we've been awarded a significant contract to provide the first-of-a-kind net-zero microgrid, which will combine fuel cells and hydrogen combustion engines for the port of Duisburg in Germany. And hold on to that thought for a moment, because I'll talk about airports in a little while.

Some of the strongest demand this year has been from data centre customers and our standby power solution was recently chosen by a hyperscale data centre customer. And as we expand our geographic reach, we'll grow market share in this space.

# **New Markets: Rolls-Royce SMR**

Right, so that's our established businesses. Now, we'll turn to what we call New Markets, our newly established reporting segment, including both Rolls-Royce SMR and Electrical. Whilst these businesses are at an early stage, as Panos explained, they come with huge growth potential focused on addressing the opportunities created by the transition to net zero.

Starting with Rolls-Royce SMRs, we're using existing technology which we've been taking to market for decades, over 60 years in fact, in our nuclear submarine work. The diversification here is into new markets, with nuclear power plants for both on-grid and off-grid applications. And we're seeing enormous amounts of support for this technology. In 2021, we secured a sizable third-party funding through a UK government grant and equity investment from strategic and financial partners. And this is helping us to fund our SMR design through the regulatory approval process and support us as we search for sites for those factories that will manufacture the first units.

First orders for the UK market are anticipated within the next couple of years. SMRs are a core part of the UK government's 10 Point Plan for a green industrial revenue. Our SMR is designed to deliver 470 megawatts of power on a site that is only the size of two football pitches. And that's very power-dense. They've been engineered for low cost and repeatable

manufacture, making them competitively priced with solar and wind, but without the associated intermittency challenges and costs, and including all the costs of eventual decommissioning and waste management. What's also really exciting about SMRs is how they can support our other businesses in the necessary production of green hydrogen and net-zero synthetic fuels.

# **New Markets: Rolls-Royce Electrical**

Now, moving on to Electrical. In Rolls-Royce Electrical, we see again, high growth potential. This is where we take a relatively new technology to a market sector that we know very well. Rolls-Royce has the mix of technologies and the skills that we've built through decades of sector-specific knowledge and experience, combined with market access. And that's what makes us win.

Well, lots of people have the technical ability to work in electrical propulsion and power markets. We have aerospace in our DNA and a track record of success. It's relatively easy to build electrical machines. They're all around us in many different shapes and sizes, typically low – compared with the world of aviation, the power capabilities of these is relatively low. To lift a heavy object into the sky and move it through the air for hundreds of miles needs much more power, and the energy required has to be carried in that vehicle as well. And that is getting into the realm of hard stuff. Weight, thermal management, structural integrity, all very challenging, and extreme levels of safety and reliability too, and it all becomes extremely difficult in an aero application.

But that's where the decades of experience and the depth of knowledge at Rolls-Royce makes the difference. We are highly differentiated. We have the experience and the expertise and the safety track record to succeed. And this is a growing market too. We've partnered with Vertical Aerospace, and we power their VX for all-electric urban air mobility vehicle. Vertical has \$5.5 billion worth of pre-orders for over 1,000 of these products from some of the world's biggest and most innovative airlines.

We're also strategically partnered with Embraer's urban air mobility spin-out, EVE. By the end of last year, EVE had already secured over 1,700 of aircraft pre-orders worth \$5.2 billion. And with a collaboration with Tecnam and Widerøe announced at the half year for an allelectric powertrain for the commuter market. And that's targeting entry into service in the mid-2020s.

Our electrical businesses is not just for airborne solutions. We're combining our expertise in electricals with our experience in power systems to develop a business opportunity for energy and charging infrastructure for airports and for vertiports in preparation for the Advanced Air Mobility market. All in all, it's an extremely exciting time for our Electricals business, with many tangible opportunities in the pipeline.

#### Summary

So to summarise today's presentation and our full year results, we're proud to confirm that our financial performance is improving thanks to both cost reduction and market growth. We are delivering on the commitments that we promised, and we're investing to drive growth and deliver sustainable value into the future. Together, these make Rolls-Royce a better balanced and more sustainable better. And with that, we'll turn over to Q&A.

# Q&A

**Operator:** Once again, if you would like to ask questions, just press the star one. And if you want to cancel it, just press the hash key. Once again, please press the star one for question.

**Isabel Green:** Hi, we've got a question on the website from Lavinia Sherwood who asks, how is restructuring helping to support the anticipated business ramp-up?

**Warren East:** Okay. Well, thank you very much. I'll answer that a bit qualitatively. I mean, the restructuring is all about inserting operational gearing into the business so that when activity increases, it delivers real value in terms of profit. And we're confident that operational gearing will persist because the costs will stay out, and we can look at our Civil business and say it's 30% smaller in terms of footprints and in terms of headcount.

Now, those factories are not coming back. We've installed machines, like I talked about in the presentation, which reduce cycle time hugely. We've changed our design processes, again reducing cycle time hugely, driving up the productivity. In fact, with the reduced level of activity that we're still seeing in 2021, we have underutilised assets, but those assets will be utilised when the growth comes back. And so the growth will be able to come back, as we said, with relatively small increment in terms of operating costs.

I don't know if there's anything to add to that, really.

**Panos Kakoullis:** Yeah. If I think about it from a quantitative perspective, as we look to 2022, there is going to be a load increase in the Civil business and seeing how that load increase manifests itself, think around about 30% more load going through that business. And when we look at it from an operating cash cost perspective, it's around about 6%. So it's a disproportionate increase in load supported by that gearing that Warren's referred to already.

And if I just added, I guess, a little bit of experience from having now spent quite a bit of time in the business and, again, wandering around the shop floor and talking to our people, and we've talked about it a little bit in the past, around the mind-set of our people. What we're able to do now and what I'm able to do now, is link in some of those individual activities that I see on the shop floor – how they are thinking, what they're thinking around quality, safety, and efficiency, and how that starts manifesting itself in lower costs going forward. Thank you.

**Isabel Green:** We're ready to take the next question, I think, from the phone lines, please.

**Operator:** Thank you. Your first question comes from the line of Celine Fornaro from UBS. Please go ahead. Your line is open

**Celine Fornaro (UBS):** Thank you, it's Celine Fornaro. Right, thank you for taking my questions. The first one would be actually on providing slightly more colour, if you could, on the cash aerospace and the trading cash performance there. And the dynamics that are underlying, I would say, as you highlighted on the introductory remarks, and that are likely to stay in 2022 and 2023. And what I'm thinking here, or interested in, is if you assume some sort of a pickup in the shop visit, how do you think your estimated cost in the shop visits are trending compared to the real cash costs that you are incurring, and that's true for 350, 787 and the 330?

And my second question is on the £1 billion of cash savings that you have achieved excluding CAPEX. How should we think about the return of this costs looking at 2022, 2023, please? Thank you.

**Warren East:** Okay. Thanks for the question. Kicking off, more colour on that cash. Clearly, cash incoming depends on the rate of recovery of activity in the markets. We do anticipate the steep increase in activity, which we saw second half on the second half in the 2021 numbers, to continue albeit at slightly sort of slow rate because you're building on a larger base as we go through 2022. So consensus forecast would be for approximately a 50% increase in flying hours.

Now, you can see when we think about shop visits and our planned number of shop visits to deal with that, you could see from the answer that Panos gave a moment or two ago, we're anticipating roughly a 30% increase in load on our factories. And that's really driven by the component demand from those shop visits.

And the cost of those shop visits is clearly related to the cost reductions that we talked about a moment ago. And that takes us into the second half of your question on £1 billion, and I'd bring you back to Pano's answer a moment ago where we're divorcing the load increase from the operational cost increase. You're probably going to go on and ask us about material cost increases and supply chain challenges and all those sorts of things as well. And of course, those are baked in, but I'd remind people of the long-term nature of this business, the long-term nature of the contracts that we have with suppliers and the escalation clauses that we have in that.

Celine Fornaro: Thank you.

**Operator:** So your next question comes from the line of Robert Stallard from Vertical Research. Please go ahead. Your line is open.

**Robert Stallard (Vertical Research):** Thanks so much. Good morning. This is probably a question for Panos. You highlighted the £300 million positive benefit from concessions in 2021. A sensitive topic, but what are your expectations for concession payments looking into the 2022 numbers, and potentially to 2023, as Boeing eventually restarts deliveries on the 787?

**Panos Kakoullis:** Thanks, Robert. Yeah, sensitive. Probably hard to predict because it does depend on some regulatory outcomes. The assumption we've made is that that £300 million slipped into 2022, as you'll have seen. We do expect to see some unwind as we go through − overall through the course of the year. It's going to typically depend on deliveries. Overall deliveries of new engines this year we expecting to be flat, but I'm seeing that going into 2022. It could potentially slip a little bit into 2023.

We will highlight it for you as and when we have greater clarity on it. And it's something we pull out and you heard me talk about it earlier on in the presentation. It's an uncontrollable. So I'm not going to claim credit for it if it doesn't happen. And if it happens earlier, then we'll highlight it.

Robert Stallard: Yeah. And as a quick follow-up - I'm sorry.

Panos Kakoullis: Okay.

**Robert Stallard:** I can hear myself, sorry. And it may be a question for Warren. On the fantastically named Vertical Aerospace, I was wondering what your thoughts are on potentially monetising that stake at some point in the future, or is this a long-term investment?

**Warren East:** Oh, goodness me. This is, as far as we're concerned, a long-term investment. It's cementing a partnership as it were. We're looking at that whole space and, as I say, huge growth opportunity. There are uncertainties around that. The market really doesn't exist today and so there's a bigger bar on what that market is going to look like in, say, 2030.

We're very confident, when we look at our partners though, that we're looking for a balance of partners like Vertical Aerospace, which are new companies tackling this market and companies like EVE, the spin-out from Embraer where you have a more established player. We're interested in powering as many of them as possible because, as I just talked about a moment or two ago, we think we have real differentiation there. And as far as investments are concerned, we're not going to be making a habit of investing in everybody but where we can do a little bit of catalysing, then we will.

Robert Stallard: That's very helpful. Thank you.

**Operator:** So your next question comes from the line of George Zhao. Please go ahead, your line is open.

**George Zhao (Bernstein):** Yes, hi, good morning, everyone. I guess, first question, can you just talk more about the increase in investments in 2022 driving the flat margins for this year? How much higher and how much of that is going to the New Markets?

I guess the second question is more on the New Markets. I mean, you decided to give the £5 billion revenues outlook by the early 2030. I guess, why was now the time to give this, the year when we are clearly in very much of an infancy of a stage for these new ventures? I mean, now that you have given up this £5 billion number, can you give us some details on how you get there and what are some of the investment requirements over the medium-term to succeed here?

**Warren East:** Okay, I am going to ask Panos to talk about the 2022 investments and I'll come back and add some colour on the new businesses that we talked about this morning.

**Panos Kakoullis:** Thanks, George. And you'll have picked it up from both the release and how we present it. There is a pivot away into some of those growth opportunities over the course of the next few years, probably a little bit away from Civil and where the Civil business is.

The increase of the investment, you better see them effectively in three places. So, Defence, where we have got some big bids coming up and we are in that stage of ramping up around those bids now. Power Systems, in particular, because you heard us talk about energy transition. That is where the big opportunities are sitting right in front of us at the moment. We have got 40,000 very, very sticky, loyal customers who are coming to us now increasingly – in fact, we had to a board meeting earlier this week when we were looking at the ramp up of that order book around that. So, the investments there are around the technologies and the systems solutions to help those customers, so you see it coming through there. And as you rightly said, around New Markets. We've very deliberately, for this year, tried to give you

more clarity. We've pulled out those New Markets businesses into that segment, both SMR and Electrical, and we pulled out to show you how much R&D.

Now, there is a big element around that ramp-up that does happen in 2022 in those New Markets. So, and, I think, we have used the word "substantial" so you can think about that as a near doubling of investment in that. That does not all come through in terms of cash. There will definitely be a P&L because those are businesses that we control and consolidate. But you saw from an SMR perspective how much of that is coming from both government funding and third-party shareholders.

As you go forward, that cash profile, particularly on SMR, is matched by customer orders and deposits coming in and matches off how that spend happens. I think we have talked about what we expect the rough spend over the next five years to be on New Markets, which is around about £1 billion mark, which about half of it we will fund ourselves.

Warren East: Yeah, I think, Panos has answered really the second part of the question there as well. We are talking about £1 billion of investment and we have pulled it out because we want to demonstrate that this is investment and not just central R&D costs. Clearly, imagine it was a completely standalone start-up business, you have to paint to your investors a picture of the sort of return that you are going to make and that is why we are talking about £5 billion in nearly 2030s.

Now, clearly, as I said in answer to a question a moment ago, there is uncertainty around here. We are expecting these electrical aviation products to enter into service around about the middle of the decade, maybe between the middle of the decade and the next couple of years after that. The SMRs we have talked about having orders in the next couple of years with revenue recognised in proportion to cost. But we are talking about getting these on the grid around about the end of the decade, maybe 2030, a little bit beyond.

So, there is uncertainty in it, but we are trying to paint a picture just to scope out roughly the size of contribution that is being made by those businesses in that time frame. It is very, very approximate.

I would just highlight, Panos referred to the investment that we are making in power systems, however. This is an established business with existing customers with much shorter development cycles and so, we absolutely expect to see a revenue impact from the net-zero investments in power systems well before the second half of this decade.

George Zhao: All right, thank you.

**Operator:** So your next question comes from the line of Ben Heelan from Bank of America. Please go ahead, your line is open.

**Ben Heelan (Bank of America):** Yeah, morning. Thanks for taking a question. I had a couple of questions around the guidance. I was quite surprised to see the low- to mid-single digit revenue guide at the Group level. Is there any divisional breakdown that you can give us around that?

Secondly, on the margin. You talked about the operating margin being flat. Is there any colour you can get around gross margin? Obviously, you have said R&D and investments are growing, so how should we think about the gross margin progress as we go through this year? Thank you.

**Panos Kakoullis:** You'll have seen we have done something different in how we talk about guidance going forward. And that was a very deliberate reflection on the shape of the business that we have now, and it is a very different business to the one we had two years ago. It is much more balanced – you heard Warren talked about – much more balanced and sustainable business so 40% of it is Civil Aerospace, 60% – the majority now is Defence and Power Systems. So, when we thought about guidance and you've heard me talk about a much more balanced view of the KPIs that we think about, so that is why we talked about revenue growth, that is why we talked about margin in addition to what we have traditionally talked about around cash. And then there's in due course, as that track record builds, start thinking about what is the return that we can start demonstrating on that.

From a revenue perspective, that low to mid, how does that pan out across the businesses? So, you have seen very strong order book – I think Warren referred to it, record order book in Power Systems. That turns into revenue over the course of this year so you can see good growth coming through in the Power Systems business.

The Defence business is a steady business. The big wins that we have talked about, they take time to come through. I think Warren talked about, that secures decades effectively into the future. That does not come through immediately, so think of that as that is modest in terms of revenue.

Then that leaves you effectively with Civil Aerospace which again is modest growth, and that is primarily determined by what happens around activity driving increased shop visits. You will have seen in the release some of the factors that start affecting that. We had some long-term service agreement catch-ups which went through revenue this year. So, that is a factor that you have to think about from a headwind perspective on revenue.

Then as you look at those in terms of margin, if I go through the three businesses. The Defence business, we had a good mix around margin this year, just gone 2021, around spare parts and spare engines. Those are typically high margin. We get that to a more normal level of mix next year so that has an impact on your gross margin.

Similarly, when we think about Power Systems, again, there was quite a high element of service rather than OE. That tends to be a little bit higher margin as well. So, that is how that changes.

Then from a Civil Aerospace perspective, the margin mix of the business going forward is definitely changing. We are into the newer engine programmes. Those are the programmes that are flying more frequently now than they were in the past. They are earlier stage. We recognise less margin on those as they are less mature. There is a lot of margin left to come. And when I look at the balance sheet and I look at that long-term service agreement balance, that creditor that sits there, there are big chunks of that that are potential margin. As we work our way through, as Warren has talked about, how those cost savings come through, how we increase time on wing, that has a direct impact on margin as we go into the future.

**Ben Heelan:** Okay, great, thank you. Just a quick follow up, because I thought earlier in the call you talked about expecting a roughly 30% increase in load for shop visits. So, how do I tie the 30% increase in load to the modest growth in Civil Aerospace? How significant is that revenue headwind from the catch-ups?

**Panos Kakoullis:** So, Ben, the load was across the whole of the Civil business, including business aviation. So, there was quite a big ramp-up in business aviation as we go through this year. So, it is OE ramp-up in business aviation and an increase in shop visits across the board. That is how I think about it.

Ben Heelan: Okay, okay, very clear. Thank you.

**Operator:** So your next question comes from the line of Harry Breach from Stifel. Please go ahead, your line is open.

Harry Breach (Stifel: Yes, hello, Warren and Panos. Can you hear me?

Panos Kakoullis: We can.

**Harry Breach:** Great. Guys, thank you for question and forgive me because I missed the first half hour of this. First of all, can I just ask about time and material last year? I think in the first half of this year, T&M was about 16% of overall underlying revenue for Civil Aero. Can you – and I might have missed me so please forgive me ignorance – can you give us a sense of where it for full year 2021 and how you might see that trending in 2022, if you can?

Then just thinking about major shop visit, I think in the presentation, you kindly gave us the number for the Civil last year. What should we be expecting compared with that 208 based in 2021? What should we be expecting for this year and going forward? I get because there is some discretion in the scheduling of those, I appreciate long-term trend will match EFH but there may be some scheduling discretion. So, any help will be greatly appreciated. Yeah.

**Panos Kakoullis:** We didn't talk about time and material, so you didn't miss that bit. Second half, first half, think of that as roughly the same, so there wasn't a significant disconnect between the two.

In terms of shop visits, you are very right. It is driven by actual flying activity and Warren referred to what the market is anticipating around increase in engine flying hours. There is always a little bit of a lag in terms of how that comes through but expect shop visits to up, probably a little bit less than flying activity, given that lag that is typically here.

**Harry Breach:** Great, thank you. Thank you both.

**Operator:** So your next question comes from the line of David Perry from JP Morgan. Please go ahead, your line is open.

**David Perry (JP Morgan):** Yes, thank you, gentlemen, for taking the call. I am sorry, I missed a fair amount of the speeches, so I apologise if I am asking something you have covered. I have got two questions; they are both for Panos. One is high level, and one is more detailed. High level, you say you want to simplify how we report. I look at H1 2021 where you delivered a massive beat in Civil Aero [inaudible]. I look at H2 at the full year where there's the huge miss and guidance, way below consensus. I think none of us on the [inaudible] sell-side have a clue, frankly. What is it that you can change that makes this somehow more predictable and, therefore, more investible? I am sorry, it is quite a high-level question.

A much more detailed one is you're clearly guided to an EBIT number well below the sell-side consensus. Can you just walk me from this EBIT number to the cash flow in 2022? So, what

are you assuming now for working capital, what are you assuming on the LTSA. That would be very helpful. Thank you.

**Panos Kakoullis:** Sure. So, let me pick that up. I think as we said that the half year and you and I have had some good discussions, David, around simplification. When I look at how we simplify the way we communicate, the way we report, as you said the way we help you understand the business and make it more investible, I think what we have done for this full year, we have started to give you some more clarity. So, we have shown trade and cash flow by business, which is something we had not done before. We have pulled out what we are doing on investments within the New Markets, again to give some clarity on that and, frankly, started to use a little bit of nomenclature that is more common because I want to have comparability, I think, across years and between peers. And when I look at what our peer group do, I want to us to be aspiring to that.

There is still more to go, and you may have missed it when I was talking about it earlier on. This needs to be done ground up, right? I am not going to put something over the top for the veneer in how I present because it is fundamental to how we run the business on a day-to-day basis. Making sure that the underlying value drivers that Warren and I spend time with within the business, as we push on those and as we start showing you what those value drivers are and how we think about them, how they link up to the outside performance. When you do that, budgeting, remuneration, how people get rewarded, the whole thing has to work in a robust way.

So, things still to come, things that will help what you have asked for, are what we do around foreign exchange and our hedging policy which is different to what others do and that will take time to put in place; and, particularly, the last point you made there effectively is around contract accounting and having a much tighter link between what happens in the underlying contract and how that shows up from a profit end cash perspective. You will never get a direct link between cash and profit in any long-term contracting business, but how that trend can be much more easily seen. So, we have done some and there is more to go.

In terms of effectively your comment on profit, we have never really given guidance around profit in the past. It was my observation when I came in, because it was a predominantly civil aerospace driven business, there was a lot of focus around cash. It is a different shaped business now. It is a much more balanced shape business. That is why we started talking about revenue, that is why we started about margin as well as cash and to come, how we think about returns.

So, that is why that profit is there. I don't view it as missing guidance, I view it as helping you think about guidance and consensus going forward because it is nothing we have really talked about in the past. And that has been very evident when I look at the range of profit the analyst community had in the past. It has never really been talked about. Now, we want to put it in a much more understandable way.

In terms of the big movements around cash and how profitability comes back, let me come back to that in a few minutes, right? It is a detailed question. If we take the next one and I will come back to you.

**Operator:** So your next question comes from the line of Andrew Humphrey from Morgan Stanley. Please go ahead, your line is open.

**Andrew Humphrey (Morgan Stanley):** Hi, good morning, thank you. Maybe a couple of bigger picture questions. Warren, we've talked a lot today about opportunities for the business and a more balanced portfolio going forward. Could you, maybe, talk about how you would view the biggest challenges for your successor?

As another broader question, where does the departure of Warren put us in terms of any potential mid-term target setting that we might see this year?

Then also I wanted to ask a bit about Power Systems. Clearly, we have seen a very strong performance there on orders. Clearly, that is also a short cycle business than the Civil Aero so I wanted to ask about what additional challenges there may be in terms of supply chain management and protection around the margins that business is making over the next couple of years? Thank you.

**Warren East:** Okay, well, I will go with those, Andrew, thanks very much. So, I think the challenges over the next several years, the strategy is very clear. The challenge is there is a lot of opportunity out there and it is making the investment calls and balancing that investment alongside looking after our existing business. So, we talk about value creation from our installed fleet, for instance, in Civil Aerospace, extending the time on wing, that takes engineering effort, resource, investment and so on. But so do the opportunities in net zero that we talked about both within Power Systems, actually, within things like electrical aviation and even in Defence addressing net zero opportunity.

So, the challenges are those and we included a slide in Panos' presentation, the bit Panos presented, around how we think about investment and applying capital. And I think therein lies the biggest challenges over the next several years.

As for target setting, medium-term target setting and so on, we will come to that. When we talked about my moving on this morning, that is the end of this year, and so, after we do this results presentation, I am back to running the business. And any target setting that we do around the middle of this year will be no change.

Supply chain challenges, particularly, in Power Systems, we do expect the supply chain challenges that we have seen over the second half of 2021 persisting through quite a bit of 2022. Right now, if we compare what we anticipate those challenges to the impact that they might have on an otherwise budget, think high tens of millions of pounds, up towards £100 million as an impact for 2022. So, if miraculously, we are able to deal with those supply chain challenges and they go away, then there is some potential upside there, but we are not hugely optimistic about that happening any time soon.

**Panos Kakoullis:** Let me just come back to David's point, reflected on it, and so, I think David, you asked the detailed point around the bridge between operating profit and free cash flow and what is driving that. There is going to be a number of things going our way. We are going to get to a more normal pattern of working capital within the business as engine flying hours start to increase and we have talked about what that ramp-up will look like, offset a little bit by the shop visits but those tend to lag. There is some increased investment spent that we talked about, both from the CAPEX and a R&D perspective going against that. There is the continuation of the hedge[?] unwind cost. That is going to be a little bit lower that we saw this year. Most of the other factors stay the same. So, that is typically what you will see going through.

At a macro level, okay, just to look one number the other, the bridge isn't trying to bridge very much but there are a lot of ins and outs to get you from one to the other.

**Operator:** So your next question comes from the line of Charles Armitage from BNP. Please go ahead, your line is open.

**Charles Armitage (BNP Paribas):** Thank you. A couple of questions. I think David is doing a bit better than I am. I am struggling to get to Ben's question. Low- to mid-single-digit sales growth. So, we have got a 30% increase in load in Aerospace and profit recognition and revenue recognition along with work done. We have got £3.3 billion inflow in Power Systems versus £2.7 billion of sales in orders and that converts pretty quickly. We have got Defence stable. We got a negative £200 million – or a headwind of £200 million from [inaudible]. I am struggling to get down to low- to mid-single-digit growth given lots of growth in Power Systems and seemingly Civil Aerospace. What am I missing?

**Panos Kakoullis:** So, Charles, that was on the revenue side.

Charles Armitage: Yes.

**Panos Kakoullis:** Yeah, yeah. So, I think, on Civil we said – when I answered it earlier on, I said modest growth in Civil because that is determined by shop visits coming through and the recognition of revenue around those shop visits. They typically lag, as we have said, around what is happening on engine flying hours.

On Defence, we said broadly stable. There is a little bit of up and there is good growth within Power Systems. When you take all of that mixed together, that is how you end up with low to mid.

**Charles Armitage:** Okay. Next question. On SMR, effectively, what level do you need to have carbon cost to be able to be viable on SAF production? Alternatively, what can you produce SAF at?

**Warren East:** I will have a go at answering that, but I can't answer it explicitly, to be honest. I mean, what we do know is that SAF requires a huge amount of energy and the electrification of multiple sectors is putting a huge amount of demand on traditional generation. SAF is a large increment on top of that. You have to use energy to create hydrogen, you then have to use energy to combine that hydrogen. You have to use energy to capture carbon dioxide as well and then put it together. So, the rationale is that it is a zero carbon effective way.

We know that the levelised cost of electricity is comparable with wind. We know that that includes the cost of decommissioning and waste management, and that the cost of wind and solar and the like doesn't include the cost of storage required to offset the intermittency.

So, I can't give you an answer in terms of carbon price, but I can give you an answer in terms of the large amount of demand, which is there and the comparable, competitive cost of electricity. Then you get into the sizing and the logistics of arranging for large amounts of power for things like SAF plants and significant hydrogen generation plants and the infrastructure that has to be put around it. And that is the economic argument for an off-grid application.

Charles Armitage: Okay, Thank you.

**Operator:** I'll now hand back to Isabel on questions from the webcast.

**Isabel Green:** Thank you. And there is actually quite a lot of questions on the webcast, and we are not going to get through them all today. And, in fact, quite a few of them, I think, have been covered by the answers given. But just to say if anybody feels that they need a direct answer, do come back to the Investor Relations team.

So, the last question is actually from someone on the buy side. We have Tim Ashton who, Warren, is asking you how much do you think Rolls-Royce has changed in your tenure? I am going to add in a "so far" on that because I know that you are not finished yet.

**Warren East:** No, no, I am certainly not finished yet. Yeah, it is a difficult question, and it is hard to quantify it exactly. I mean, what I said this morning was that if I compare the company, I walked into with the company we have now, it is chalk and cheese. From a cultural and behavioural point of view, it is a very different business. Some of the messaging I hope we have got across this morning is that from an operational point of view, it is also a very different business, with strong operational gearing baked in so that as we lean towards growth in the future, that growth will have a big contribution to real value creation.

So, I think it is fit for the future. I think, too, we have a very clear strategic direction, and it is very much a broad-based power group that we look at now and that gives us a much bigger opportunity set. The future of this business is not dependent on long-range, long-haul aviation.

So, that is the summary, but it is probably time for a longer discussion rather than an answer in a Q&A like this. I would also highlight a huge difference in the people, by the way, just before finishing on that. We have a much smaller organisation but if I look at things like the senior leadership group here, it is by 60% smaller, it is between five and 10 years younger and, I think, these are some of the intangible things which make a massive difference to the agility and the ability of the business to be competitive going forward.

Thank you. I think Isabel is busy telling me that that is the last question, so thanks everybody for joining. We do appreciate that you have had a very busy day today even before events that happened in Ukraine. The messages we would like you to take away, improving financial performance in our results evident here, the operational gearing that we have talked about, we are delivering on our commitments, and we are very focused on the future, both in terms of the opportunities for growth in our established businesses and in the new businesses. And we look forward to seeing you with an update on progress when we give you an update at the half year. Thank you.

[END OF TRANSCRIPT]