Appendix 1
Finance tour
Modelling help and Q&A discussion

Introduction

A subset of our finance team

Arvind Balan

CFO Civil Aerospace since 2022

14 years at Royal Dutch Shell, including most recently as Regional CFO based in Singapore. Before Shell held roles at Citigroup, Arcelor Mittal and HSBC

Andy Banks

Head of Civil FP&A since 2018

Over 20 years at Rolls-Royce, including Head of Group Reporting, Forecasting Transformation Project Lead, and Purchasing Finance Manager

Peter Lapthorn

Head of Group Analysis & Insight since 2021

Previously worked as investor relations manager at Rolls-Royce (2019-21), and Aerospace & Defence equity research at Goldman Sachs

Guidance summary

Material improvement in performance

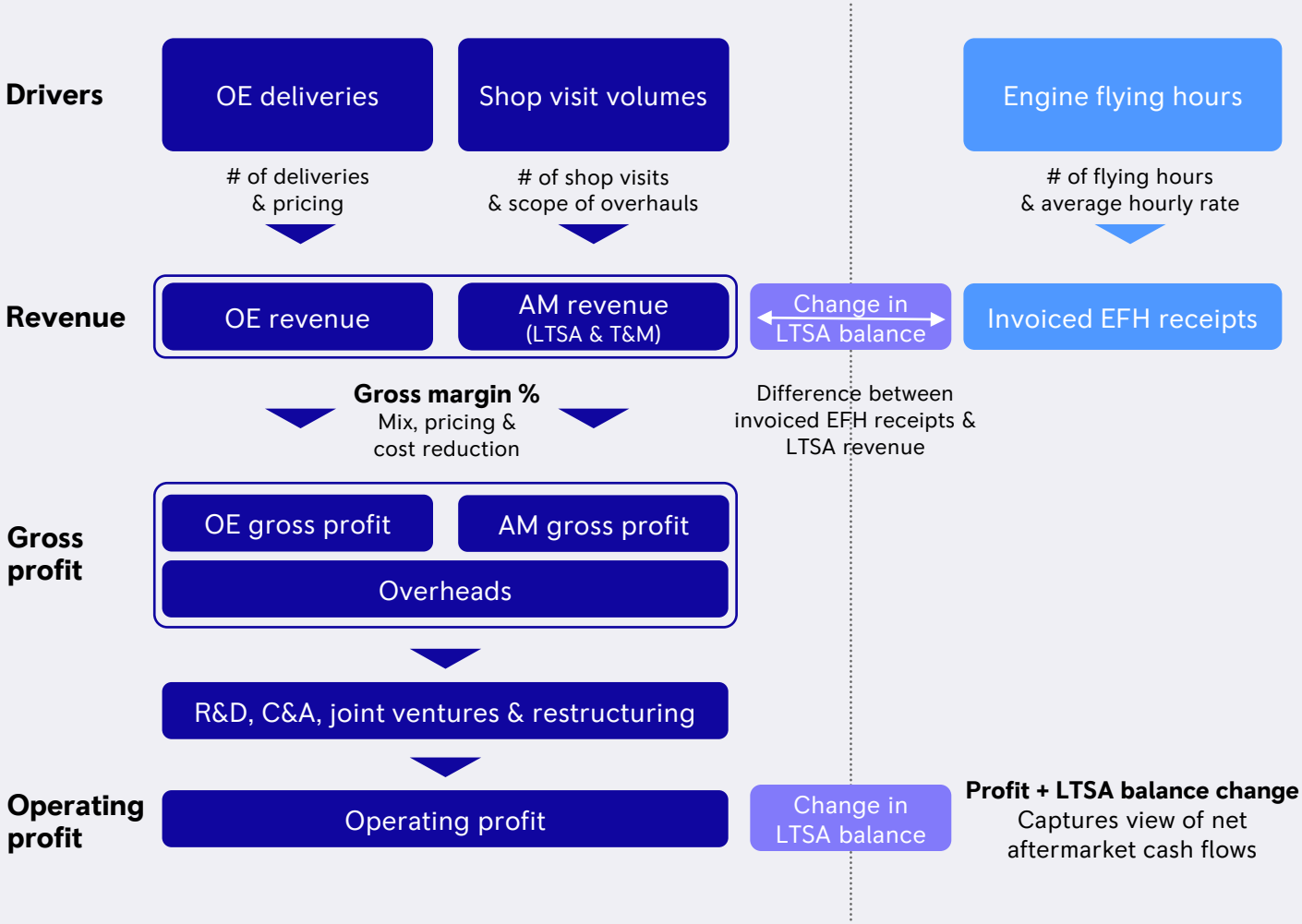
Guidance summary	2019	2021	Medium term
DRIVERS			
Engine deliveries (large & business engines)	729	309	Mid teens CAGR
Shop visit volumes (large, business & regional engines)	1,554	953	Low double-digit CAGR
LTSA engine flying hours (large, business & regional engines)	19.4m	10.3m	Approaching 2019 levels
FINANCIAL			
OE revenue	£3,246m	£1,611m	Low teens CAGR
Services revenue	£4,861m	£2,926m	High single-digit CAGR
Total revenue	£8,107m	£4,536m	Low double-digit CAGR
R&D charge as % of sales	5%	10%	~5%
Operating profit margin	1%	(4)%	High single-digit
Change in net LTSA balance	£754m	£66m	~£500m average pa
Trading cash flow	£419m	£(1,670)m	Comfortably exceeding operating profit

Operational & financial model

Our **operational drivers** of deliveries and shop visits drive the P&L, while flying hours are a large cash flow driver

The **LTSA balance change** is the connection between the P&L and cash flow

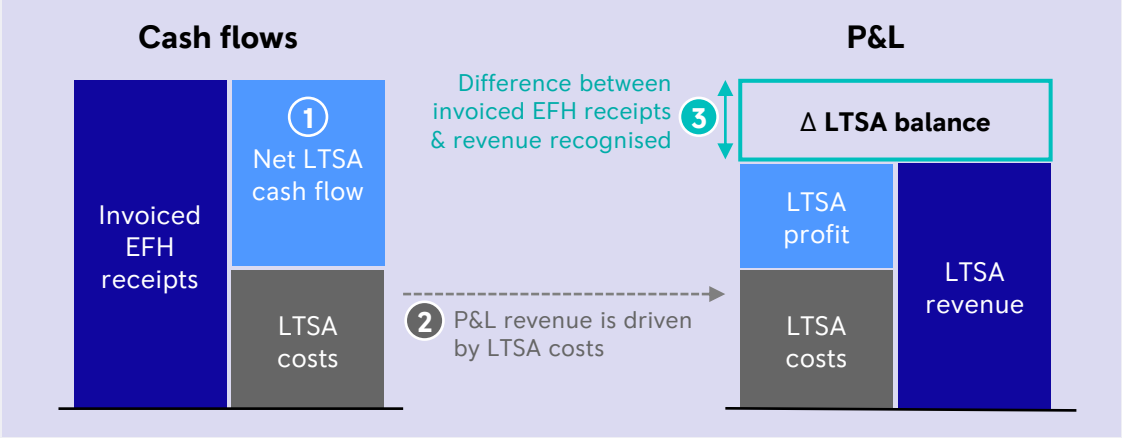
We are focused on key **value levers** to improve performance: cost reduction, time on wing improvement, pricing



Understanding the LTSA balance

The LTSA balance is the connection between profit and cash flow

Looking at **profit + the change in the LTSA balance** together provides a view of net LTSA cash flows and looks through the noise of any contract catch-up impacts



1. Cash is driven by flying hour receipts and shop visit costs:
   Net LTSA cash flow = invoiced flying hour receipts - LTSA costs (largely shop visits)

2. P&L revenue is driven by costs (costs are broadly aligned between profit and cash, minor timing differences):
   LTSA revenue = LTSA costs / (1 – contract margin)

3. The LTSA balance connects the P&L with cash flow. It represents any EFH receipts not booked in revenue:
   Change in LTSA balance = invoiced EFH receipts – P&L revenue recognised

P&L profit and the LTSA balance change together therefore gives a view of net LTSA cash flows:
P&L profit + Δ in LTSA balance ≈ net LTSA cash flow

Cash conversion

Materially improved, higher quality cash generation versus pre-COVID

2019: £0.4bn including >£0.5bn working capital contribution and zero hedge close-out costs

Medium term: Comfortably exceeding operating profit with no material working capital

Performance beyond medium term driven by fleet growth & further product cost reduction

Operating profit	• Revenue growth at low double-digit CAGR • High single-digit operating margins
Net LTSA balance change	• Average of ~£500m pa medium term
Investments (D&A, capex & leases)	• Very low level of R&D capitalisation due to product maturity • Capital-light approach to services and spare engines • Overall D&A modestly higher than investment and lease costs
Change in working capital	• Balance sheet improvement through COVID (e.g. invoice factoring cessation) • Broadly neutral working capital in medium term
Hedge close-out costs & other	• Reducing headwind from hedge close-out costs • Gradual reduction in Group interest paid due to deleverage • Modest level of provision consumption
Trading cash flow	• Comfortably exceeding operating profit

LTSA example

Illustrative example of a single contract

P&L profit + change in LTSA balance = cash profit

		$m	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Cash flow		Engine flying hours	100	100	100	100	100	500
		$ per EFH	10	10	10	10	10	10
		Invoiced EFH receipts	**1,000**	**1,000**	**1,000**	**1,000**	**1,000**	**5,000**
		Shop visit costs					-2,000	-2,000
		Other ongoing costs	-100	-100	-100	-100	-100	-500
		Total costs	**-100**	**-100**	**-100**	**-100**	**-2,100**	**-2,500**
	C	**Cash profit**	**900**	**900**	**900**	**900**	**-1,100**	**2,500**
		Contract margin						*50%*
P&L		LTSA revenue (driven by costs)	200	200	200	200	4,200	5,000
		Total costs	-100	-100	-100	-100	-2,100	-2,500
	A	**P&L profit**	**100**	**100**	**100**	**100**	**2,100**	**2,500**
Balance sheet		Opening LTSA balance	0	800	1,600	2,400	3,200	
	B	+ invoiced EFH receipts	1,000	1,000	1,000	1,000	1,000	
		- P&L LTSA revenue	-200	-200	-200	-200	-4,200	
		Closing LTSA balance	**800**	**1,600**	**2,400**	**3,200**	**0**	

A	**P&L profit**	**100**	**100**	**100**	**100**	**2,100**	**2,500**
B	**+ change in LTSA balance**	**800**	**800**	**800**	**800**	**-3,200**	**0**
C	**= Cash profit**	**900**	**900**	**900**	**900**	**-1,100**	**2,500**

LTSA example
Catch-up in year 4

In year 4 due to cost reduction efforts the estimated cost of the shop visit in year 5 on this contract reduces to $1,500 (from $2,000), improving the lifetime margin to 60%

Year 4 revenue is therefore $400:

- $250 due to in-year costs of $100 at the new 60% margin
- Plus a $150 contract catch-up adjustment to bring historic revenue in years 1-3 to the new correct level ($300 costs at 60% margin = $750 revenue)

		$m	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Cash flow		Engine flying hours	100	100	100	100	100	500
		$ per EFH	10	10	10	10	10	10
		Invoiced EFH receipts	**1,000**	**1,000**	**1,000**	**1,000**	**1,000**	**5,000**
		Shop visit costs					-1,500	-1,500
		Other ongoing costs	-100	-100	-100	-100	-100	-500
		Total costs	**-100**	**-100**	**-100**	**-100**	**-1,600**	**-2,000**
	C	**Cash profit**	**900**	**900**	**900**	**900**	**-600**	**3,000**
		Contract margin						*60%*
P&L		LTSA revenue (driven by costs)	200	200	200	400	4,000	5,000
		Total costs	-100	-100	-100	-100	-1,600	-2,000
	A	**P&L profit**	**100**	**100**	**100**	**300**	**2,400**	**3,000**
Balance sheet		Opening LTSA balance	0	800	1,600	2,400	3,000	
	B	+ invoiced EFH receipts	1,000	1,000	1,000	1,000	1,000	
		- P&L LTSA revenue	-200	-200	-200	-400	-4,000	
		Closing LTSA balance	**800**	**1,600**	**2,400**	**3,000**	**0**	
	A	**P&L profit**	**100**	**100**	**100**	**300**	**2,400**	**3,000**
	B	**+ change in LTSA balance**	**800**	**800**	**800**	**600**	**-3,000**	**0**
	C	**= Cash profit**	**900**	**900**	**900**	**900**	**-600**	**3,000**

Appendix 2
Efficiency and Productivity Case Studies

Key drivers of value

Creating value from a growing and maturing fleet as the market for international passenger travel recovers

Retaining the operational efficiency and productivity gains delivered in 2020 and 2021 to drive margin expansion

MAXIMISE SERVICES RECEIPTS	SERVICES COST REDUCTION	OE MARGIN IMPROVEMENT	BUSINESS AVIATION GROWTH	INVESTMENT REDUCTION
• Market recovery • Contract extensions and aircraft transitions • Service scope and pricing	• Time on wing improvement • Shop visit cost reduction	• Reduce component and assembly costs • Productivity and cost base improvement • Purchasing strategy	• Pearl engine programme ramp-up and OE cost reduction	• Less intense new product introduction • Focus on cost reduction and product maturity • Capital light approach utilising partnerships

Case Study

15%
Labour hours saving per shop visit

© Dassault

Horizontal overhaul method

- Disassemble and re-assemble the engine in a horizontal orientation rather than vertical
- This enables a more targeted workscope to be achieved helping to prevent creep
- On average we forecast a reduction in labour hours of 15%
- It also offers substantial operating cost reduction for MRO facilities of the future

MAXIMISE SERVICES RECEIPTS | **SERVICES COST REDUCTION** | OE MARGIN IMPROVEMENT | BUSINESS AVIATION GROWTH | INVESTMENT REDUCTION

Case Study

£100k+
Saving per shop visit

© Dassault

Trent XWB-97 front cover plate re-use

- Established increased acceptance limits to address wear mechanisms that were causing front cover plates to be scrapped
- Minimising component level interventions is the most economic and sustainable way of reducing shop visit cost

MAXIMISE SERVICES RECEIPTS | **SERVICES COST REDUCTION** | OE MARGIN IMPROVEMENT | BUSINESS AVIATION GROWTH | INVESTMENT REDUCTION

Case Study

40%
Typical cost saving vs. fit new

© Dassault

Intermediate pressure nozzle guide vanes repair

- We have introduced a suite of repairs of this component to avoid replacement with new
- The repairs are largely common with other Trent engine variants
- Complex repairs on high volume components are undertaken in a small number of suppliers
- Component repair reduces the demand on new hardware which in turn reduces the environmental impact of engine overhaul

MAXIMISE SERVICES RECEIPTS | **SERVICES COST REDUCTION** | OE MARGIN IMPROVEMENT | BUSINESS AVIATION GROWTH | INVESTMENT REDUCTION

Case Study

30%
Cost saving
compared to new

© Dassault

Seal segment Direct Laser Deposition repair

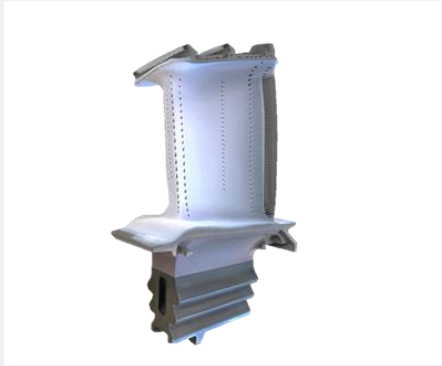
- Innovative additive layer manufacturing method called Direct Laser Deposition to build up a matrix structure and re-create the sealing face
- Enables repair of seal segments which would otherwise have had to be scrapped
- Reducing material usage and improving sustainability and cost
- This type of repair is being deployed across the modern Trent engine fleet

MAXIMISE SERVICES RECEIPTS	**SERVICES COST REDUCTION**	OE MARGIN IMPROVEMENT	BUSINESS AVIATION GROWTH	INVESTMENT REDUCTION

Case Study

x2
Turbine blade life

543
Trent TEN &
Trent 7000
engines in service



Trent 1000 TEN & 7000 High Pressure Turbine Blade

- Incorporating latest technology
- Using simulation of fleet operations to inform design
- Component life increase to support overall engine time to refurbishment extension
- To be incorporated into new production and in-service fleets

MAXIMISE SERVICES RECEIPTS | **SERVICES COST REDUCTION** | OE MARGIN IMPROVEMENT | BUSINESS AVIATION GROWTH | INVESTMENT REDUCTION

Case Study

>20%
Life limited parts extension

543
Trent TEN & Trent 7000 engines in service

© Dassault

Trent 1000 TEN & 7000 Life Limited Parts extensions

- Improvement of our life limited parts >20%
- Use of actual versus generic operational data to provide further life improvement >50%
- Parts life increase to support overall engine time to refurbishment extension
- Reduction on material replacement cost at shop visit
- Improvement across all product types

MAXIMISE SERVICES RECEIPTS | **SERVICES COST REDUCTION** | OE MARGIN IMPROVEMENT | BUSINESS AVIATION GROWTH | INVESTMENT REDUCTION

Case Study

+8%
Temperature limits

543
Trent TEN &
Trent 7000
engines in service

© Dassault

Trent 1000 TEN & 7000 enhanced temperature limits

- Engine testing to certify additional temperature limit
- Engine monitoring used to optimise maintenance
- Reduces temperature & engine deterioration to support time to refurbishment extension

MAXIMISE SERVICES RECEIPTS | **SERVICES COST REDUCTION** | OE MARGIN IMPROVEMENT | BUSINESS AVIATION GROWTH | INVESTMENT REDUCTION

Case Study

+10%
Time on wing

543
Trent TEN &
Trent 7000
engines in service

© Dassault

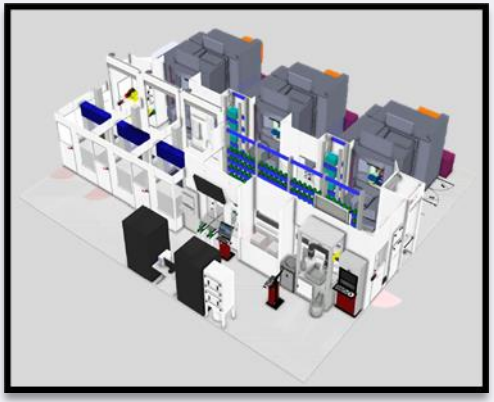
Trent 1000 TEN & 7000 better aircraft operations

- Optimising climb leading to 40% component wear reduction
- Next generation of engine washing (JetVac) improving time on wing by 10%
- Improves engine wear & deterioration to support overall engine time to refurbishment extension

MAXIMISE SERVICES RECEIPTS | **SERVICES COST REDUCTION** | OE MARGIN IMPROVEMENT | BUSINESS AVIATION GROWTH | INVESTMENT REDUCTION

Turbine Viper Grinding Case Study

100%
Capacity & Productivity Improvement in the same footprint with increased levels of capability & quality



New Turbine Blade Automated VIPER Grinding Cell

- De-commissioned 20 year old equipment and installed automated machining cell with scheduling software and other technology improvements
- Footprint reduction resulting in increased efficiency in terms of space and leveraging automation technology (6 new machines in the footprint of 3 old machines)
- Resulting in increased productivity and capacity through the use of multi-manning, utilising technology improvements and increased quality
- Other advantages include a demonstrated improved machining capability and reduced variation in product quality and new product lead time
- Roll out & decommissioning of further cells already planned and underway

MAXIMISE SERVICES RECEIPTS	SERVICES COST REDUCTION	OE MARGIN IMPROVEMENT	BUSINESS AVIATION GROWTH	INVESTMENT REDUCTION

Trent XWB-84 Engine lead time

>40 days to 27 days
reduction in engine lead-time

£3.4m
Engine inventory saving

Trent XWB-84 engine lead time reduction

- We have removed waste & non-essential work from the critical path of the engine
- We have crossed trained our fitters
- Working with our logistics teams, we have made improvements in how parts are delivered to the engine build line – removed packaging and bespoke workstation kitting
- We have completed workplace organisation improvements to improve efficiency

MAXIMISE SERVICES RECEIPTS | SERVICES COST REDUCTION | **OE MARGIN IMPROVEMENT** | BUSINESS AVIATION GROWTH | INVESTMENT REDUCTION

Trent 1000 HP Turbine Disc lead time

33% reduction in lead time, **12 week to 8 week**

£1.3m inventory saving

© Dassault

Trent 1000 HP Turbine Disc

- We implemented a pull system at the bottleneck operation of broaching, optimising batch sizes to minimise set up time loss and create better flow
- We consolidated our inspection operations from 8 to 5 to reduce the losses waiting for parts to cool prior to inspection
- We focussed on driving Zero Defects to enable better flow of parts
- We improved the flow of information across shared resource areas to gain better co-ordination

MAXIMISE SERVICES RECEIPTS | SERVICES COST REDUCTION | **OE MARGIN IMPROVEMENT** | BUSINESS AVIATION GROWTH | INVESTMENT REDUCTION

Turbine blade wax assembly lead time

Lead time reduction from **7 days to 2 days**

750 part inventory saving - **£0.3M**

56% rate increase

15% productivity improvement - **£1.4M**

Wax Assembly Lead Time Reduction

- We have interactive value stream mapping with live data from all operators on each process showing variations on actual times versus standard
- We have implemented new tooling design to remove downstream operations
- We have implemented new tooling to increase the asset availability of the constraint operation
- We have reduced inspection requirements

MAXIMISE SERVICES RECEIPTS | SERVICES COST REDUCTION | **OE MARGIN IMPROVEMENT** | BUSINESS AVIATION GROWTH | INVESTMENT REDUCTION

Electronics Cell productivity improvement

80% productivity improvement - **£600k**

£200k inventory saving

Electronics Cell Lean Transformation

- We have increased machine reliability of the production line
- We have improved the performance of the automated inspection equipment
- We have improved product flow through changes in production and logistics by delivering material to the required stage of the production line
- We are moving to single piece flow and standard work to deliver further inventory and productivity benefits

MAXIMISE SERVICES RECEIPTS	SERVICES COST REDUCTION	OE MARGIN IMPROVEMENT	BUSINESS AVIATION GROWTH	INVESTMENT REDUCTION

Fan Blade Singapore lead time

52 days to 41 day
reduction in fan blade lead time

£2.9m
inventory saving

© Dassault

Fan Blade Lead Time Reduction

- We aligned our Vision across all manufacturing cells to deliver lead time reduction
- We have delivered waste reduction across the manufacturing Value Stream
- We improved machine uptime through improvement activity
- We focussed on improving quality to enable better flow of parts
- We increased flexibility of workforce through multi-skilling

MAXIMISE SERVICES RECEIPTS	SERVICES COST REDUCTION	OE MARGIN IMPROVEMENT	BUSINESS AVIATION GROWTH	INVESTMENT REDUCTION

Appendix 3
Civil Aerospace Facts & Figures

Our company

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.

At Rolls-Royce, we believe in the positive, transforming potential of technology

Our business groups

Civil

35
types of commercial aircraft powered by us

15,400
installed base around the world

17,900
total employees

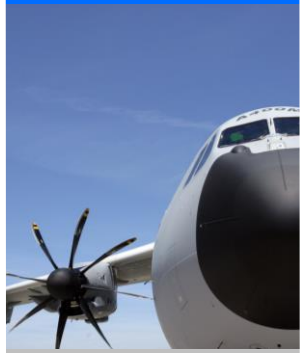
Power Systems

40,000
customers in 11 different industries

20,000
reciprocating engines sold per year

9,000
total employees

Defence



160
customers in over 103 countries

16,000
engines in service around the world

11,100
total employees

Electrical

NEW MARKET

£52m
Research & Development

≈ 400
total employees

SMR

NEW MARKET

£16m
R&D to enter the UK GDA process

≈ 255
total employees

Pioneering sustainable power for civil aerospace

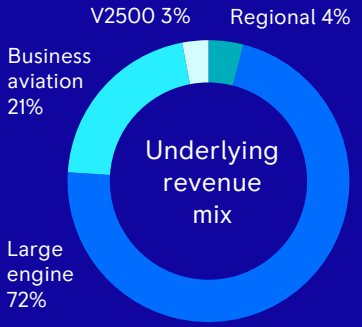
Civil Aerospace

35
types of commercial aircraft powered by us

15,400
installed base around the world

17,900
employees

£4,536m
underlying revenue



Civil Aerospace

Our Civil Aerospace business is a major manufacturer of aero engines for the large commercial aircraft, regional jet and business aviation markets.

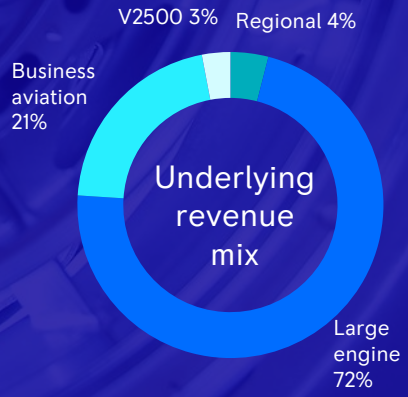
The business uses its engineering expertise, in-depth knowledge and capabilities to provide through-life support solutions for its customers.

£4,536m

Underlying revenue [1]

£172m

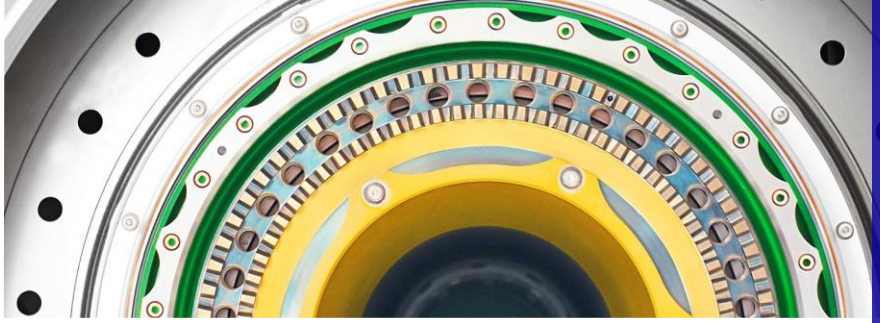
Underlying operating loss [1]



[1] 2021 results reported

Leaders in Airlines

Civil Aerospace



~3,400

Customers

~9,100

Aircraft in airline service*

450m+

Engine Flying Hours

*combined in-service and storage

Includes all RB211, Trent, Regional and Business Aviation engines

Leading products in Core Markets

Business Aviation Portfolio

In Service

- **BR710 |** Bombardier Global Express, 5000 & 6000 Gulfstream V, G500 & G550
- **Tay |** Gulfstream IV, G300, G400, G350 and G450
- **AE3007 |** Embraer ERJ 145/140/135

In Production

- **BR725 |** Gulfstream G650
- **Pearl 15 |** Bombardier 5500/ 6500

In Flight-test & Development

- **Pearl 10X |** Dassault Falcon X
- **Pearl 700 |** Gulfstream G700 / G800

Widebody Portfolio

Market leading mature fleet	35% market share	Sole-source	Sole-source	Sole-source
				
Trent 700 | A330	**Trent 1000 |** Boeing 787	**Trent XWB-84 |** A350-900	**Trent XWB-97 |** A350-1000 **Trent XWB-97 |** A350f	**Trent 7000 |** A330neo

Legacy large engine fleet also includes: RB211, Trent 500, Trent 800 & Trent 900 (~1850 engines in service or stored)

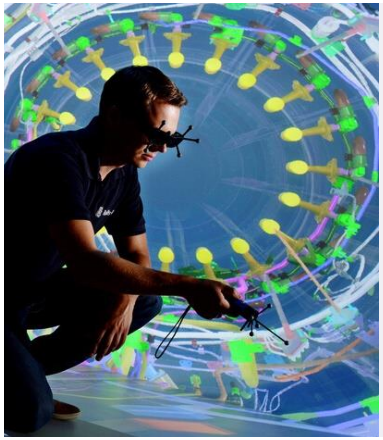
Customer

3000+
customers across the globe

15,400
installed base around the world

>450m
engine flying hours

Design



~4000
design engineers continuously pioneering

40%
reduction in engineers since 2018

TestBed 80
advances our digital test capability and is fit for future engines

Manufacture

33
manufacturing facilities

~25%
made internally with ~75% sourced from external supply chain

5
core commodities*

Service

13
large engine maintenance, repair and overhaul bases*

130
on wing care and authorised service centres for business jets

>900
widebody engines overhauled per year

*including partnership and customer owned

Transition

Trent 700
Powers more A330 transitions that competitors

A330
Airbus A330neo fleets primary market

63%
market share for Trent 700 A330 Passenger to Freighter conversions

Our Global Service Network

Our global network allows people, parts, tools and engines to move quickly and admin free around the world to cater to customer needs

1 Rolls-Royce maintenance facility
2 Third party maintenance facilities
3 Joint ventures
4 Customer owned shops
3 Authorised Maintenance Centres
75 Authorised BA Service Centres
65 On-Wing Care

Strategic procurement is aligned to four categories of spend

RAW MATERIAL & FORMING	COMPLEX MACHINING	FINISHED COMPONENTS	DESIGN MAKE
			
50 suppliers £0.7bn	**150 suppliers £0.5 bn**	**300 suppliers £0.5bn**	**100 suppliers £0.5bn**
PCC **ATI** **Howmet**	**Hanwha** **Senior Group** **Forgital Group**	**AECC** **ITP** **Schaeffler**	**Parker-Hannifin** **Collins** **Safran**
Directed buy model for scale and control Long term contracts and elementals hedging Focus on performance crucial	Consolidating spend into best suppliers Driving capability and investment to develop technology Vertical integration - forge and machine	Value from market competitiveness Partner on key technology Exit poor performers	Product designed in to engine system Strategic partners - technology suppliers with important IP Life of type contracts

OUR LEADERSHIP TEAM

President – Civil Aerospace

Chris Cholerton

Business Aviation Director

Dirk Geisinger

Services Director

Dominic Horwood

Chief Customer Officer

Ewen McDonald

Director – Operations

Sebastian Resch

Product Development and Technology Director

Simon Burr

Chief Counsel

Will Morris

People Director

Maria Kokkinou

Chief Financial Officer

Arvind Balan

Strategy Director

Simon Carlisle

Chief Digital and Information Officer

Stuart Hughes

2021 Full Year Results

Civil Aerospace Supplementary Data

Civil Aerospace

- Improved operational gearing with restructured cost base
- Significant value in installed base of around 5,700 large and 9,700 regional and business aviation engines
- Airbus A350 freighter is a great opportunity for Trent XWB with 58 additional engine orders since its launch
- Two key new selections in Business Aviation with our Pearl 10X and Pearl 700

Driving growth from established businesses

Civil Aerospace

Large engine KPIs

195 OE deliveries

208 Major shop visits

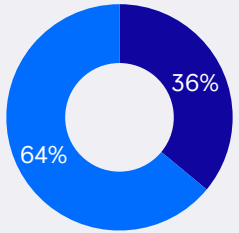
7.4m LTSA Engine flying hours (EFH)

Underlying results £m	FY 2021	FY 2020[1]	Organic Change	%
Revenue	**4,536**	**5,068**	**(491)**	**(10)%**
Gross profit / (loss)	474	(1,987)	2,477	
Gross margin %	10.4%	(39.2)%	49.9%pt	
Operating profit / (loss)	**(172)**	**(2,535)**	**2,371**	**94%**
Operating margin %	(3.8)%	(50.0)%	46.4%pt	
Trading cash flow	*(1,670)*	*(4,510)*	*2,840*	

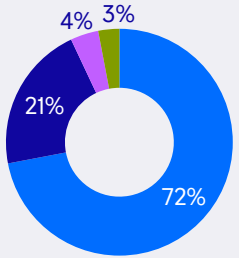
Reduction in engine deliveries partly offset by improvement in LTSA catch up

Restructured business with smaller footprint and leaner workforce and significant swing in LTSA catch ups

Underlying revenue splits



- OE **(29)%** ▼
- Services **6%** ▲



- Large engines **(1)%** ▼
- Business Aviation **(2)%** ▼
- Regional **7%** ▲
- V2500 **(77)%** ▼

[1] The underlying results for Civil Aerospace for 31 December 2020 have been restated to reflect the changes to activity during 2021 due to the transfer of the Hucknall site and associated fabrications activities to ITP Aero, and also to reclassify the results of the Group's SMR and electrical activities as New Markets.

LTSA balance:
Drivers of Civil LTSA balance change

Deferred revenue reflects difference between invoiced EFH receipts and P&L revenues traded

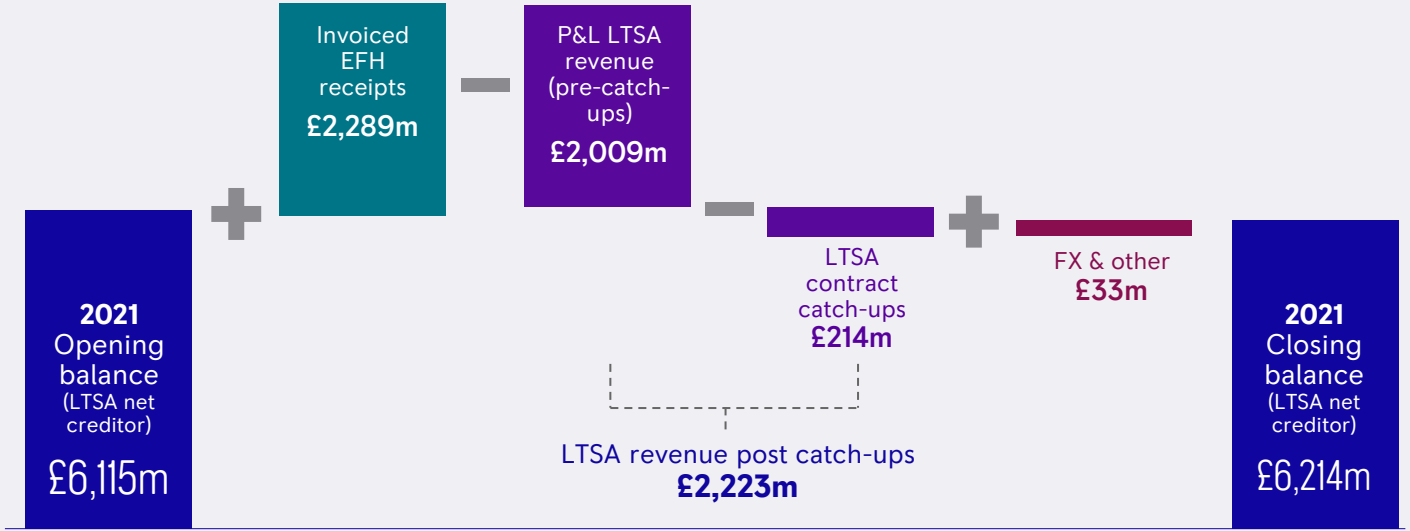
Invoiced EFH receipts

Reflects invoiced EFH receipts on long-term contracts across **entire** Civil LTSA-covered fleet

P&L revenue

Driven by cost (e.g. shop visits) across large engine, business aviation and regional fleets.

Recognised by contract, as costs incurred, at relevant contract margins



Civil Aerospace revenues by engine type

COVID-19 impact seen across OE and Services

£m	FY 2021	FY 2020	Organic change[1]
Original Equipment	**1,612**	**2,278**	**(29%)**
Large engine	1,297	1,696	(23%)
Business aviation	310	574	(44%)
V2500	5	8	(38%)
Service	**2,924**	**2,790**	**6%**
Large engine	1,958	1,608	22%
Business aviation	654	444	52%
Regional	187	184	7%
V2500	125	554	(77%)
TOTAL	**4,536**	**5,068**	**(10%)**

[1] Organic change at constant translational currency ('constant currency') applying FY20 average rates to 2021 and excluding M&A.

Trent engine products

Leading widebody backlog market share

£m	Airframe	Market share*	Engines in service	Engines on order
Trent 7000	Airbus A330neo	100%	130	550
Trent XWB	Airbus A350	100%	764	859
Trent 1000	Boeing 787	33%	604	122
Trent 900	Airbus A380	48%	168	1
Trent 800	Boeing 777	40%	176	0
Trent 700	Airbus A330	60%	1,146	0
Trent 500	Airbus A340	100%	92	0
			3,080	**1,532**

* Share of total firm and announced programme sales with an engine decision (excludes cancelled orders)

Civil Aerospace engine deliveries

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	**2020**	**2021**
By engine																			
RB211 22B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RB211 524	2	5	7	0	5	4	0	0	0	0	0	0	0	0	0	0	0	0	0
RB211 535	14	6	0	2	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
RB211 Total	**16**	**11**	**7**	**2**	**5**	**5**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Trent 500	88	115	88	97	45	45	57	16	1	8	0	0	0	0	0	0	0	0	0
Trent 700	35	30	54	59	75	88	125	139	135	157	181	184	140	88	110	63	10	2	2
Trent 800	30	15	21	25	10	7	9	0	0	0	0	0	0	0	0	0	0	0	0
Trent 900				20	10	48	33	30	70	64	42	35	6	30	67	44	34	15	1
Trent 1000									18	46	59	79	106	122	109	125	126	82	12
Trent XWB-84												13	56	117	196	184	178	109	120
Trent XWB-97															1	45	56	34	29
Trent 7000																8	106	22	31
Trent	**153**	**160**	**163**	**201**	**140**	**188**	**224**	**185**	**224**	**275**	**282**	**311**	**308**	**357**	**483**	**469**	**510**	**264**	**195**
Civil Large Engines	**169**	**171**	**170**	**203**	**145**	**193**	**225**	**185**	**224**	**275**	**282**	**311**	**308**	**357**	**483**	**469**	**510**	**264**	**195**
Tay	48	43	55	66	80	92	68	51	57	60	67	46	38	28	2	0	0	0	0
AE3007	217	242	168	113	135	135	32	55	31	43	78	48	34	20	8	10	4	0	0
BR700	96	131	161	155	183	216	172	184	232	290	326	334	332	244	190	205	191	112	70
Pearl																2	24	72	44
Civil Small Engines	**361**	**416**	**384**	**334**	**398**	**443**	**272**	**290**	**320**	**393**	**471**	**428**	**404**	**292**	**200**	**217**	**219**	**184**	**114**
V2500*	216	237	327	319	308	351	347	371	418	220	0	0	0	0	0	0	0	0	0
Civil Total	**746**	**824**	**881**	**856**	**851**	**987**	**844**	**846**	**962**	**888**	**753**	**739**	**712**	**649**	**683**	**686**	**729**	**448**	**309**

* V2500 deliveries are recorded until the sale of Rolls-Royce's stake in International Aero Engines on 29th June 2012

Civil Aerospace engine in-service installed fleet**

Fleet data from Cirium excludes aircraft **temporarily parked** due to COVID-19

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
By engine																			
RB211 22B	48	36	36	12	15	9	12	9	6	6	3	3	3	3	3	3	3	3	3
RB211 524	829	815	796	791	769	706	643	638	617	530	455	352	302	278	266	242	210	82	80
RB211 535	1,154	1,192	1,168	1,174	1,158	1,102	1,078	1,056	1,052	1,028	1,026	1,012	908	868	826	850	824	576	658
RB211 Total	**2,031**	**2,043**	**2,000**	**1,977**	**1,942**	**1,817**	**1,733**	**1,703**	**1,675**	**1,564**	**1,484**	**1,367**	**1,213**	**1,149**	**1,095**	**1,095**	**1,037**	**661**	**741**
Trent 500	120	212	292	380	412	432	464	492	480	452	440	388	352	336	280	284	240	68	92
Trent 700	234	264	306	364	422	492	590	696	816	948	1,114	1,288	1,388	1,460	1,590	1,636	1,606	1,054	1,146
Trent 800	376	392	406	430	444	442	448	450	444	446	436	422	362	352	330	334	320	134	176
Trent 900	0	0	0	0	4	36	60	80	140	208	244	280	304	332	360	400	428	68	168
Trent 1000	0	0	0	0	0	0	0	0	6	44	84	164	260	384	476	546	658	538	604
Trent XWB-84	0	0	0	0	0	0	0	0	0	0	0	2	30	124	278	432	590	562	666
Trent XWB-97	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28	70	96	98
Trent 7000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	80	90	130
Trent	**730**	**868**	**1,004**	**1,174**	**1,282**	**1,402**	**1,562**	**1,718**	**1,886**	**2,098**	**2,318**	**2,544**	**2,696**	**2,988**	**3,314**	**3,662**	**3,992**	**2,610**	**3,080**
Civil Large Engines	**2,761**	**2,911**	**3,004**	**3,151**	**3,224**	**3,219**	**3,295**	**3,421**	**3,561**	**3,662**	**3,802**	**3,911**	**3,909**	**4,137**	**4,409**	**4,757**	**5,029**	**3,271**	**3,821**
Spey	1,090	1,024	992	946	914	864	802	760	702	632	580	506	460	430	404	360	284	252	236
Tay	1,599	1,572	1,623	1,755	1,769	1,825	1,861	1,869	1,917	1,969	2,019	2,011	2,035	2,027	1,993	2,009	1,946	1,892	1,866
AE3007	1,934	2,164	2,328	2,458	2,564	2,520	2,528	2,562	2,550	2,544	2,598	2,534	2,468	2,326	2,302	2,448	2,472	2,028	2,124
BR700	864	990	1,144	1,272	1,446	1,560	1,752	1,910	2,128	2,362	2,696	2,964	3,388	3,642	3,858	4,098	4,322	4,314	4,382
Pearl	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	36	84
Civil Small Engines	**5,487**	**5,750**	**6,087**	**6,431**	**6,693**	**6,769**	**6,943**	**7,101**	**7,297**	**7,507**	**7,893**	**8,015**	**8,351**	**8,425**	**8,557**	**8,915**	**9,024**	**8,522**	**8,692**
V2500*	930	1,054	1,196	1,348	1,492	1,613	1,722	1,852	2,002	0	0	0	0	0	0	0	0	0	0
Civil Total	**9,178**	**9,715**	**10,287**	**10,930**	**11,409**	**11,601**	**11,960**	**12,374**	**12,860**	**11,169**	**11,695**	**11,926**	**12,260**	**12,562**	**12,966**	**13,672**	**14,053**	**11,793**	**12,513**
Fleet growth	**8%**	**6%**	**6%**	**6%**	**4%**	**2%**	**3%**	**3%**	**4%**	**-13%**	**5%**	**2%**	**3%**	**2%**	**3%**	**5%**	**3%**	**-16%**	**6%**

* 50% of the total V2500 fleet included

** Installed engine base is net of retirements and excludes aircraft which are parked or in storage

Civil Aerospace in-service thrust base (millions lbs)**

Fleet data from Cirium excludes aircraft **temporarily parked** due to COVID-19

By engine	Thrust per engine (lbs)	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
RB211 22B	60,000	3	2	2	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0
RB211 524	60,000	50	49	48	47	46	42	39	38	37	32	27	21	18	17	16	15	13	5	5
RB211 535	40,000	46	48	47	47	46	44	43	42	42	41	41	40	36	35	33	34	33	23	26
RB211 Total		**99**	**99**	**97**	**95**	**93**	**87**	**82**	**81**	**79**	**73**	**69**	**62**	**55**	**52**	**49**	**49**	**46**	**28**	**31**
Trent 500	56,000	7	12	16	21	23	24	26	28	27	25	25	22	20	19	16	16	13	4	5
Trent 700	72,000	17	19	22	26	30	35	42	50	59	68	80	93	100	105	114	118	116	76	83
Trent 800	92,000	35	36	37	40	41	41	41	41	41	41	40	39	33	32	30	31	29	12	16
Trent 900	70,000	0	0	0	0	0	3	4	6	10	15	17	20	21	23	25	28	30	5	12
Trent 1000	71,000	0	0	0	0	0	0	0	0	0	3	6	12	18	27	34	39	47	38	43
Trent XWB-84	84,000	0	0	0	0	0	0	0	0	0	0	0	0	3	10	23	36	50	47	56
Trent XWB-97	97,000														0	0	3	7	9	10
Trent 7000	72,000														0	0	0	6	7	9
Trent		**58**	**67**	**76**	**87**	**95**	**103**	**114**	**125**	**137**	**152**	**168**	**185**	**196**	**217**	**243**	**270**	**297**	**198**	**233**
Civil Large Engines		**157**	**166**	**172**	**182**	**188**	**190**	**196**	**206**	**216**	**226**	**237**	**247**	**251**	**269**	**292**	**319**	**343**	**226**	**265**
Spey	11,000	12	11	11	10	10	10	9	8	8	7	6	6	5	5	4	4	3	3	3
Tay	15,000	24	24	24	26	27	27	28	28	29	30	30	30	31	30	30	30	29	28	28
AE3007	7,500	15	16	17	18	19	19	19	19	19	19	19	19	19	17	17	18	18	15	16
BR700	15,000	13	15	17	19	22	23	26	29	32	35	40	44	51	55	58	61	65	65	66
Pearl	15,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Civil Small Engines		**63**	**66**	**70**	**74**	**78**	**79**	**82**	**84**	**88**	**91**	**97**	**99**	**105**	**107**	**109**	**114**	**116**	**112**	**114**
V2500*	27,500	26	29	33	37	41	44	47	51	55	0	0	0	0	0	0	0	0	0	0
Civil Total		**246**	**261**	**275**	**294**	**306**	**313**	**326**	**341**	**359**	**317**	**333**	**346**	**356**	**376**	**402**	**433**	**459**	**338**	**378**
Thrust Growth		**9%**	**6%**	**6%**	**7%**	**4%**	**2%**	**4%**	**5%**	**5%**	**-12%**	**5%**	**4%**	**3%**	**6%**	**7%**	**8%**	**6%**	**-26%**	**12%**

* Share of total firm and announced programme sales with an engine decision (excludes cancelled orders)

Safe harbour statement

This announcement contains certain forward-looking statements. These forward-looking statements can be identified by the fact that they do not relate only to historical or current facts. In particular, all statements that express forecasts, expectations and projections with respect to future matters, including trends in results of operations, margins, growth rates, overall market trends, the impact of interest or exchange rates, the availability of financing to the Company, anticipated cost savings or synergies and the completion of the Company's strategic transactions, are forward-looking statements. By their nature, these statements and forecasts involve risk and uncertainty because they relate to events and depend on circumstances that may or may not occur in the future. There are a number of factors that could cause actual results or developments to differ materially from those expressed or implied by these forward-looking statements and forecasts. The forward-looking statements reflect the knowledge and information available at the date of preparation of this announcement, and will not be updated during the year. Nothing in this announcement should be construed as a profit forecast. All figures are on an underlying basis unless otherwise stated - for the definition see note 2 to the condensed consolidated financial statements section of the 2021 Full Year Results Statement.

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