

THE CONTRIBUTION OF LEONARDO TO THE UK ECONOMY

AN INDEPENDENT REPORT
BY OXFORD ECONOMICS

JULY 2024

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FOREWORD

Made In Britain...

“We stand at a pivotal moment for UK Defence. A rapidly evolving and volatile international context. Increased “Sub-threshold” and “Grey Zone” threats. Technology advancements changing the face of warfare. Resource and financial constraints requiring investment and prioritisation.

In response, our Armed Forces and Security Services need to be properly equipped, more integrated and more agile to counter the complex challenges we face.

Industry represents an opportunity to increase prosperity, generate growth and sustain and create high value jobs. To invest in and develop the latest-generation technologies and capabilities. To drive exports and support international partnerships. Further, this must be done while recognising our obligations to society and the communities we serve. We must break down barriers to opportunity, drive social mobility and invest to kick-start economic growth.

How we support these aims is where this report, an independent analysis from Oxford Economics, comes in. It outlines the contribution Leonardo has made to the UK economy over the last five years and, I believe, represents a prospectus for growth through investment in onshore defence.

I am heartened that the UK Government has laid out a commitment to direct defence spending towards securing British jobs and British business. This is because companies like Leonardo, deeply invested in the UK, offer a unique dual benefit for the country: the sovereign capabilities we need for the defence of the realm and, at the same time, a healthy contribution to nationwide economic growth.

Take the headline figures. Our 8,200 direct employees generate a £2.5 billion contribution to UK GDP with nearly 32,000 jobs supported nationwide. Our employees are 57% more productive than the average UK worker. We generate exports worth around £1Bn annually.

Most notably, we have more than doubled our research and development spend over the last five years. This has grown to almost £500 million in 2023 alone.

It is a significant increase and, as well as supporting the creation of information-age products and services for UK and allied Armed Forces and Security Services, it reflects our own programme of digitalisation. A commitment to our group-wide 2024-2028 Industrial Plan that is seeing transformative change happening across our business. Making us more timely and efficient in how we deliver on programmes and priming us for growth as we embrace the digital era.

This investment in the long-term future of our business will ensure we keep generating high-quality jobs and social mobility around the country. Most importantly, it will keep vital skills onshore for the future. Skills in combat air technologies, in helicopter design and manufacturing, in cyber security. Skills that have been fostered over decades and can only be maintained by a nation that continues to invest in the future of its own defence industrial base.

I am deeply proud to lead an organisation that has such purpose, such service at its heart. A business with a skilled, motivated and increasingly diverse workforce, which takes common pride in supporting our Armed Forces. Directing investment in defence towards UK businesses like ours will help to sustain and expand our workforce, reinforce our resilient, nationwide supply chain and grow the wider UK economy, as we work with partners in industry and government as one defence team to secure our nation and our allies.”

Clive Higgins
Chair and CEO, Leonardo UK

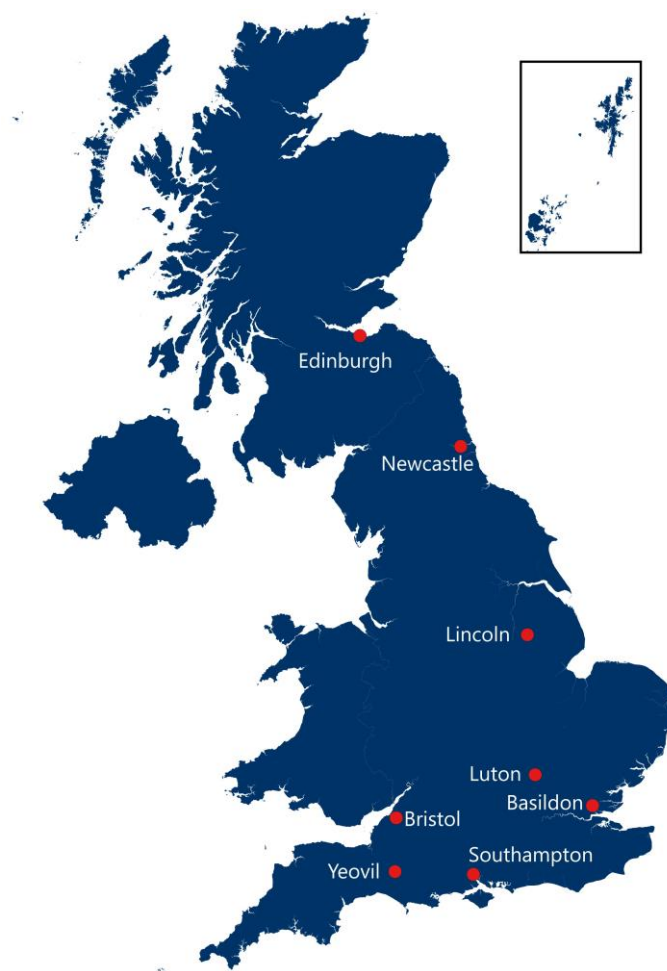
1. INTRODUCTION

Leonardo is a global aerospace, defence, and security company employing more than 53,000 workers worldwide. Its operations include a significant industrial presence in the UK, Italy, Poland, and the US.¹

More than 8,000 of these employees are based in the UK, spread out across seven major sites around the south of England, such as the helicopter facility in Yeovil, as well as Edinburgh and Lincoln further north. An eighth site opened in Newcastle in October 2023.

The company's wider operations include Telespazio, a joint venture in the space sector based in Luton. In late 2023, Telespazio acquired the satellite engineering firm e2E, located in Welwyn Garden City.

Fig. 1. Location of major Leonardo sites in the UK, 2023



¹ [Leonardo at a glance, 2024](#)

This report assesses the contribution that Leonardo made to the UK economy in 2023, quantifying the impact in terms of GDP and employment. This impact is derived from the company's own operations, as well as the impact of its supply chain spending and the contribution workers made through their wage spending.² A more detailed explanation of our methodology is presented below.³

As well as these headline economic impacts, this report highlights the wider socioeconomic contributions Leonardo made to the UK. For instance, the company performed research and development, invested in new equipment and facilities, and trained employees, all of which helped to boost the long-term growth potential of the UK.

This report is structured as follows:

- **Chapter 2** highlights the impact of the company's total UK operations on the country's economy.
- **Chapters 3 and 4** discuss the contribution of Leonardo UK's Helicopter business to the UK economy, and the impact the company has on the local economy around the site in Yeovil.
- **Chapters 5 to 10** assess the contribution of Leonardo UK's Electronics business on the UK economy, and the impact Leonardo has on the local economies around the company's sites in Edinburgh, Luton, Basildon, Southampton, and Lincoln.
- **Chapters 11 and 12** highlight the impact of Leonardo UK's Cyber Security business on the national economy, and the contribution of Leonardo to the local economy around the company's site in Bristol.

² Leonardo UK's 67% share of Telespazio is included in this impact. The impact of e2E is not considered due to it not being owned by Telespazio until very late in the year.

³ Other Leonardo entities based overseas, such as those in Italy, bring further benefit to the UK economy through purchasing directly from UK supply chains. However, this effect is not considered in this report.

AN INTRODUCTION TO OUR ECONOMIC IMPACT ANALYSIS

In each section of this report, we assess the company's impact using a standard means of analysis called an **economic impact assessment**. This involves quantifying the economic impact of Leonardo across three "core" channels:

- **Direct impact**—relating to Leonardo activities in the UK, this encompasses the economic activity and employment supported directly by the company.
- **Indirect impact**—this encapsulates the economic activity and employment supported in the UK supply chains of Leonardo UK operations, as a result of its procurement of goods and services from other firms. Note: this channel includes the impact of the company's capital investments, such as on new facilities and IT equipment, as well as that of its day-to-day purchases.
- **Induced impact**—this comprises the wider economic benefits that arise when Leonardo employees in the UK, and those in the company's UK supply chains, spend their earnings—for example, in local retail and leisure establishments.

This approach enabled us to build a picture of the company's total contribution to the UK economy across two key metrics:⁴

- **GDP**—more specifically, Leonardo UK's "gross value added" (GVA) contribution to GDP. In simple terms, GVA is the sum of income generated by the company, in the form of employee compensation and profits, plus some taxes on production such as business property rates. For brevity, we refer to this as the "economic contribution" throughout the report.
- **Employment**—the number of jobs supported as a result of the company's activity.

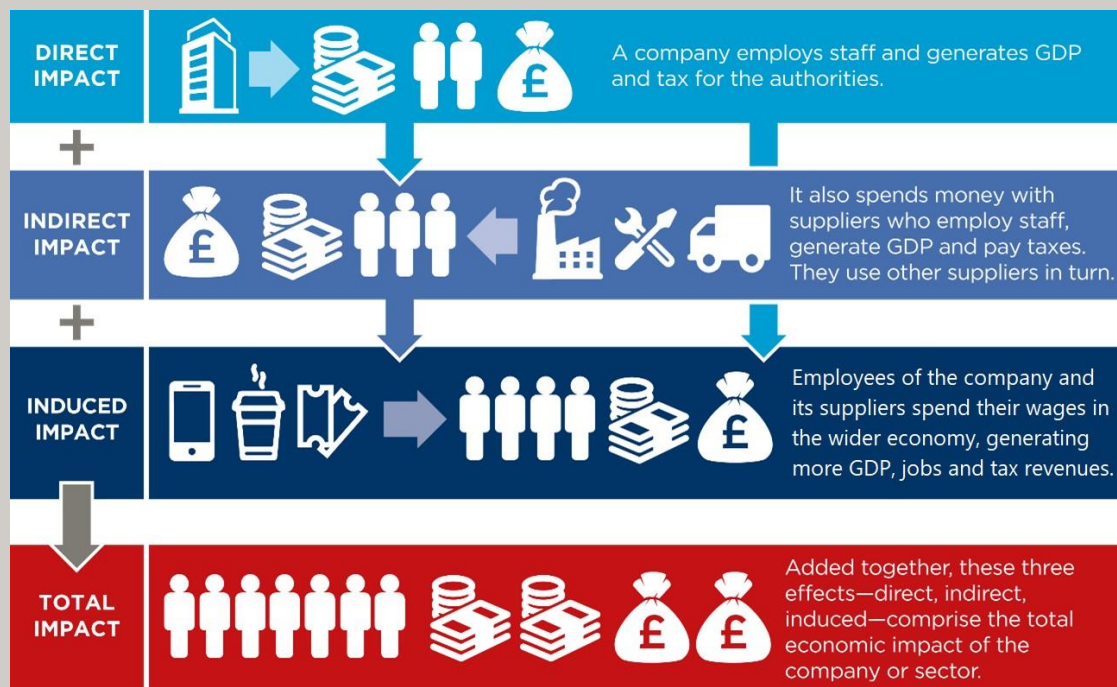
Alongside these core economic impacts, we also considered the wider "catalytic" economic impacts through which Leonardo contributed to the UK's long-term prosperity. These catalytic impacts correspond to a number of the themes identified in recent government publications, such as export growth, skills development, and building future capabilities through R&D.

The modelling upon which this report is based calculates the economic footprint of Leonardo in the UK for 2023. Our approach uses financial data for that year from the company's own accounts, plus the latest economic data available at the time of writing.

⁴ The GDP and employment results are presented on a "gross" basis. They therefore ignore any displacement of activity from Leonardo competitors or other firms. Nor do they consider what the resources currently used by Leonardo or stimulated by its expenditure could alternatively produce in their second-most productive usage. Our economic impact analysis therefore estimates the actual economic footprint of Leonardo in the UK in each year, but does not estimate the extent to which the size of the UK economy might differ if Leonardo UK operations did not exist.

Additional information on our modelling approach is provided in this report's appendix.

THE CHANNELS OF ECONOMIC IMPACT IN OUR MODEL



£2.5 billion

The contribution to UK GDP
in 2023 of Leonardo UK's
operations



1.1 THE CONTRIBUTION OF LEONARDO TO THE UK ECONOMY

This chapter sets out the total impact of Leonardo UK operations on the UK economy.

1.2 EXECUTIVE SUMMARY

Leonardo UK's operations cover several key areas, including an "end-to-end" capability in helicopter manufacturing, from the design phase through to production and support. The company also designs, produces and supports advanced electronics systems for use across land, sea, air, and space applications. Leonardo UK's operations also cover the provision of cyber security technology and services.

CORE ECONOMIC IMPACTS

We calculate that **the total contribution of Leonardo UK's operations to UK GDP was almost £2.5 billion in 2023**. Of this, £810 million was contributed directly by the company's business activity. A further £830 million was the result of activity supported by Leonardo supply chain spending, while £840 million was contributed by the wage spending of Leonardo and supply chain employees.

We estimate that **this economic activity supported nearly 31,700 jobs** around the UK in 2023. This was made up of 8,200 direct employees of the company;⁵ 12,900 as a result of supply chain spending and 10,600 supported by Leonardo and supply chain workers' wage spending.

Leonardo workers were 57% more productive than the average UK worker. Leonardo workers contributed £99,000 a year to GDP in 2023 on average, compared to the UK average of £63,000 that year.

The business sold a total of nearly £930 million in exports in 2023, split between £725 million to external customers and just over £200 million to overseas Leonardo entities, such as the company's Italian operations. The company also sold a further £4.4 billion of exports in nominal terms in the five preceding years, meaning that Leonardo made a significant contribution towards the UK government's "Made in the UK, sold to the world" target for £1 trillion of exports per year.⁶

CATALYTIC IMPACTS: LEONARDO UK'S CONTRIBUTION TO LONG-TERM PROSPERITY

Leonardo UK performed a total of just under £500 million of R&D activity in 2023 alone. Of this, £423 million was carried out in support of, and funded

31,700 jobs

Total jobs supported in
2023 by Leonardo UK's
operations



£490 million

Value of R&D activity carried
out in 2023 by Leonardo
UK's operations



⁵ This figure represents employees paid by the company and does not include contractors.

⁶ Department for Business and Trade: [Made in the UK, sold to the world](#)

by, customer contracts, while a further £73 million was funded by Leonardo itself. The company also conducted £1.4 billion of R&D activity over the five preceding years, in nominal terms.

Leonardo contributed to upskilling the UK workforce through its training schemes. For instance, in 2023 the company had 310 graduate trainees, 360 apprentices, and 60 industrial placement students. Such training not only benefitted participants by enhancing their earnings potential, it also improved the productivity of the UK labour force.

The company also took part in outreach schemes to support science, technology, engineering, and maths (STEM). These included open days and work experience for school age children, such as sponsoring the Big Bang Fair, an annual STEM event. The Leonardo stand at the June 2023 fair was led by Leonardo STEM ambassadors, who inspired and engaged the next generation of engineers, encouraging them to consider a career in STEM.

THE IMPORTANCE OF LEONARDO TO LOCAL ECONOMIES AROUND THE UK

In 2023, Leonardo operated eight major sites around the UK, including the Newcastle site which was opened in October 2023, as well as a further site where Telespazio, a Leonardo joint venture, was based. The company also has several smaller facilities and a presence on Royal Navy Air Stations and Army Aviation Centres. As well as the economic and strategic benefits outlined above, these sites are an important source of income and employment for the local areas in which they are based. The table below summarises the findings from our analysis of the local economic contribution of each site.

Fig. 2. The economic contribution of Leonardo to the local economies in which it operates,⁷ 2023

Site	Direct GDP contribution (£m)	Total GDP contribution (£m)	Direct employment contribution ⁸	Total employment contribution
Yeovil	240	320	2,800	4,300
Edinburgh	240	330	2,500	3,900
Luton	160	200	1,200	1,900
Basildon	94	120	680	1,100
Southampton	38	50	440	610
Bristol	32	50	300	610
Lincoln	12	16	110	190

⁷ See Appendix for definitions of the local areas used for each site.

⁸ Does not include contractors.

1.3 EMPLOYMENT CONTRIBUTION

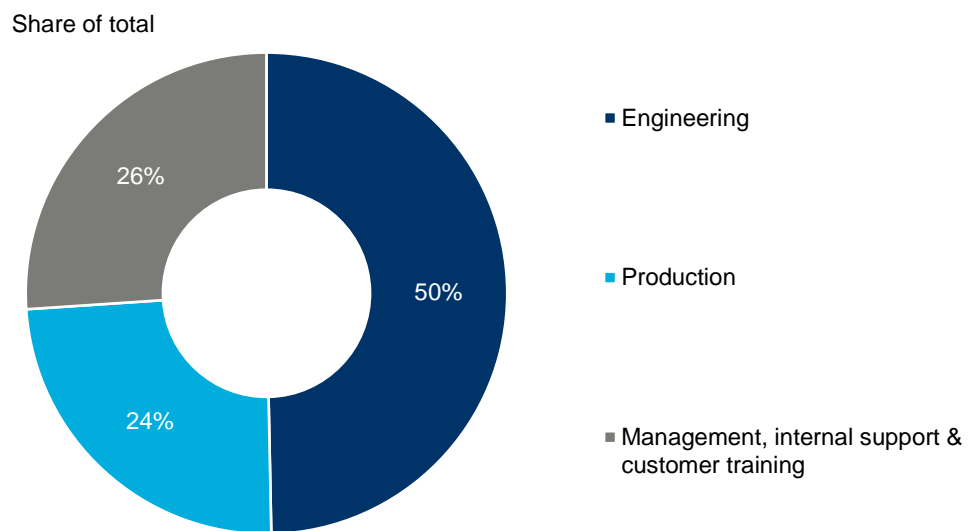
1.3.1 Leonardo UK's direct employment

In 2023, nearly 8,200 people were employed directly by Leonardo in the UK, including approximately 2,800 at the company's Yeovil helicopter facility in the South West and nearly 2,500 at the company's site in Edinburgh.⁹ Analysis by Leonardo indicates that 5% of the company's employees were situated in the 20% most deprived areas in the UK.

Half of the company's employees worked in engineering roles such as design, and approximately a quarter worked in production, building the company's products. The remainder were split across customer support, management, sales and marketing, legal, accounting, and commercial functions.

As well as the company's own workers, Leonardo sites provided a base for 330 workers from customer organisations, and 210 workers from other companies working on joint contracts.

Fig. 3. Leonardo UK's employees by job role, 2023



Source: Leonardo

1.3.2 Supply chain contribution to employment

Leonardo made just under £960 million worth of purchases from domestic suppliers in 2023, with nearly 1,700 suppliers across the country (Fig. 4). Two thirds of these suppliers were small- and medium-sized enterprises (SMEs). SMEs represented around a third of all Leonardo supply chain spending in the UK.

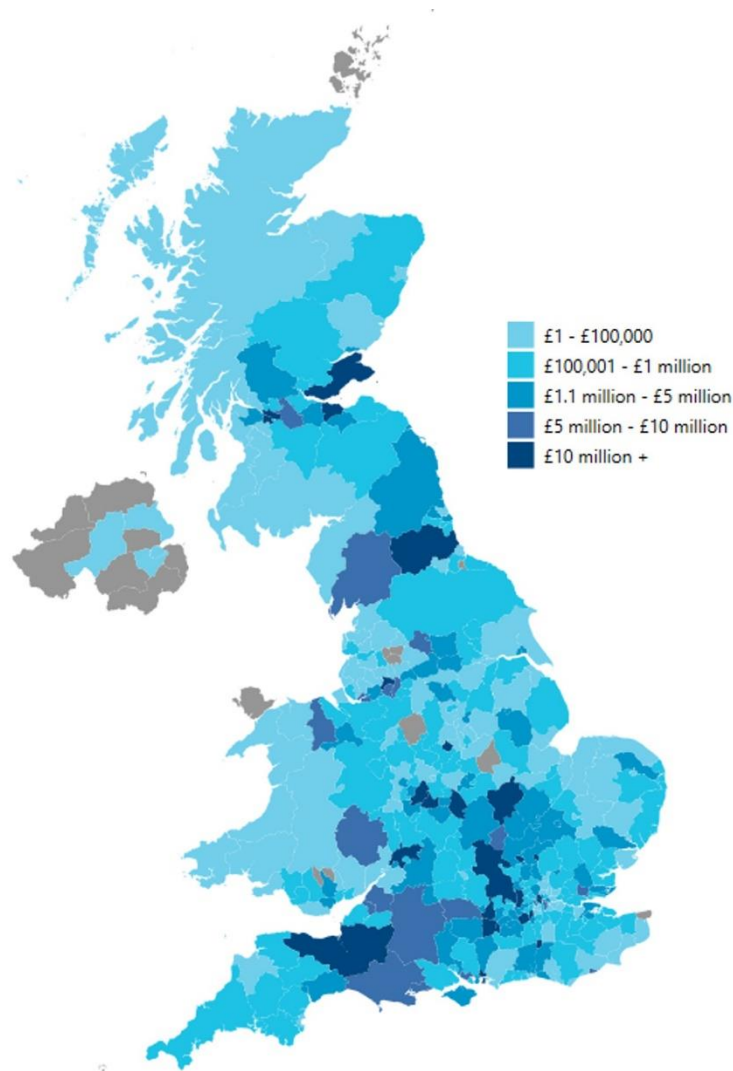
⁹ Note these figures do not include contractors, referring only to employees.

Manufactured items represented the largest component of Leonardo supply chain spending, particularly in areas such as aircraft equipment, electronic equipment, machinery, and engineering parts. Services suppliers were also a significant spending item, particularly in areas such as logistics, IT providers, and technical consultancy.

Leonardo suppliers then made purchases from their own suppliers, and so on, supporting activity down the supply chain. In total, we estimate that this procurement spending indirectly supported 12,900 jobs in the company's UK supply chain.

Analysis by Leonardo indicates that £74 million of the company's procurement spending was in the UK's 20% most deprived postcodes, roughly a third of which was with SMEs.

Fig. 4. Leonardo UK's total procurement spending by local authority district, 2023¹⁰



1.3.3 Employment supported by worker spending

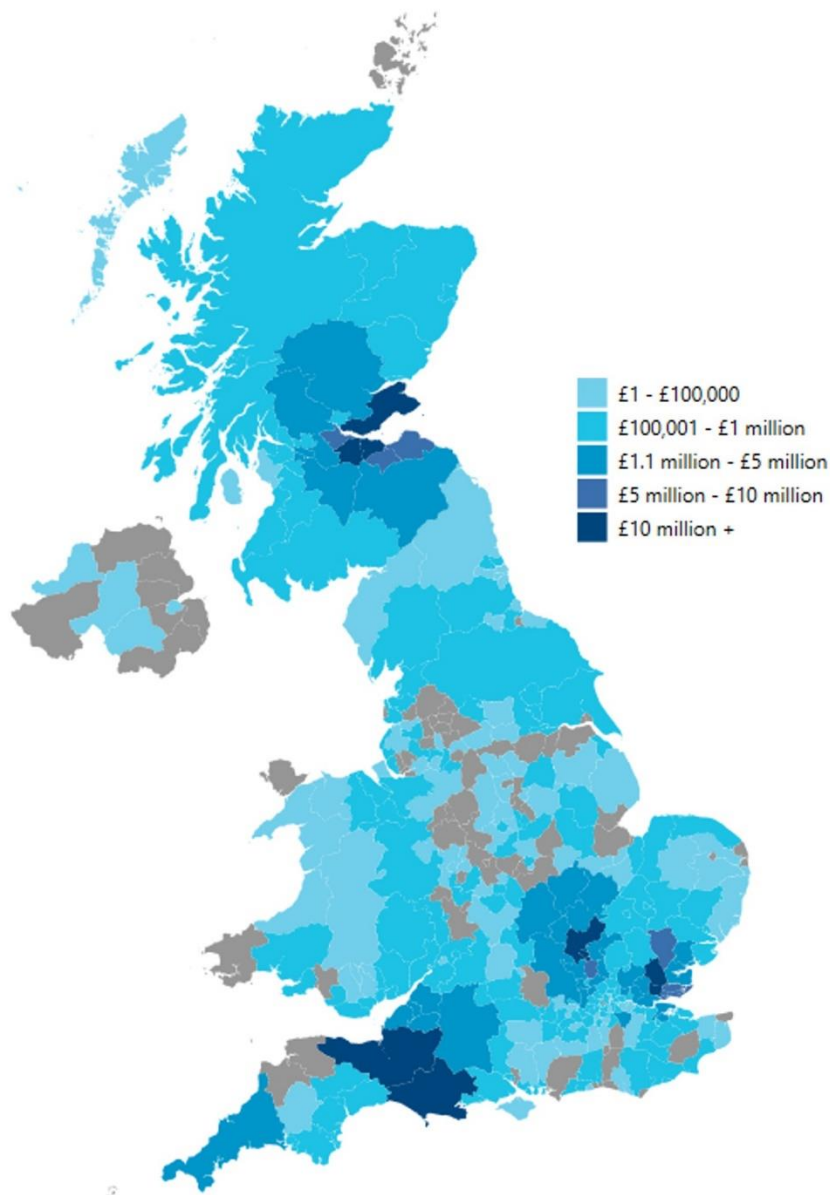
Leonardo made just over £450 million of wage and salary payments to its UK employees in 2023. These workers were typically concentrated geographically around the company's major sites, but many were also situated in other areas of the country, either providing support at customer locations or working remotely as part of the company's home working policies.

The wages and salaries paid to Leonardo employees, as well the salaries of workers in the company's supply chain, helped to support a further 10,600 jobs

¹⁰ Map is based on local authority district boundaries correct as of end 2023.

around the UK in 2023. This occurs through spending in local shops and other consumer-facing businesses and is known as the “induced impact.”

Fig. 5. Leonardo UK’s total wages by local authority district of employee residence, 2023¹¹

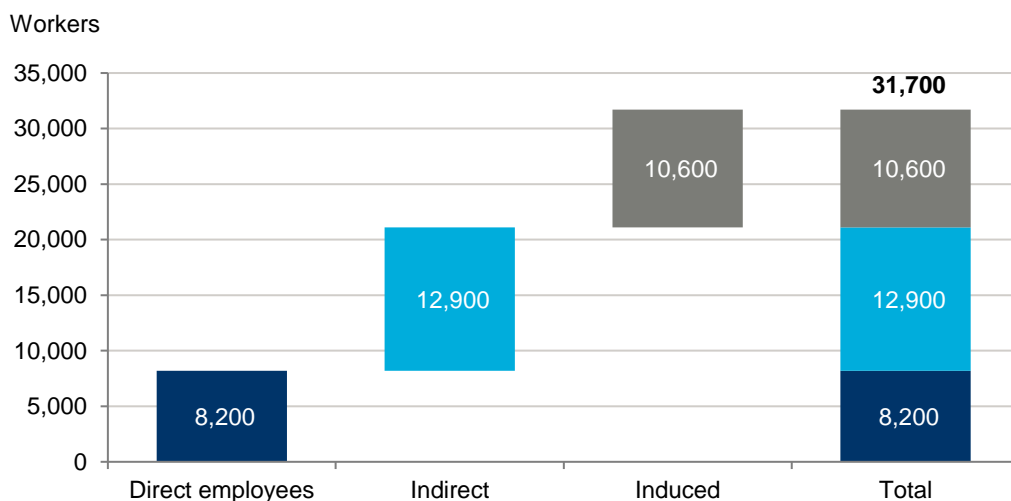


¹¹ Map is based on local authority district boundaries correct as of end 2023.

1.3.4 Total employment contribution

Bringing together the direct, indirect, and induced impacts, we estimate that Leonardo UK's operations supported a total of 31,700 jobs in 2023.¹² With the direct employment contribution by Leonardo itself of nearly 8,200 employees, this means a total of approximately **390 jobs were supported around the economy for every 100 jobs at Leonardo itself.**

Fig. 6. Leonardo UK's total employment impact, 2023



Source: Oxford Economics

¹² Please note, Leonardo UK's total employment contribution in the UK is greater than the sum of the divisions presented in the following chapters (Helicopters, Electronics and Cyber Security). This is due to other parts of the company not explicitly presented, such as corporate roles and Telespazio.

This case study box provided by Leonardo**A GLOBAL SPACE CAPABILITY BRINGING PROSPERITY TO THE UK'S FUTURE ECONOMY**

For over 50 years, Leonardo UK's world-class team of scientists based at their site in Southampton has contributed to more than 20 space programmes for NASA, the European Space Agency (ESA) and Japan Aerospace Exploration Agency (JAXA). Most recently, this has seen Leonardo deliver sensors for Europe's most accurate weather satellite, for the Centre National d'Etudes Spatiales (CNES).

Scientists from the Leonardo infrared sensors team in Southampton played an integral role in the international OSIRIS-REx mission, which successfully concluded on 24 September 2023, having sought to discover more about the Universe's origins. The team developed the DLATGS (Deuterated L-Alanine Doped Triglycine Sulphate) infrared sensor that forms the basis of the mission's vital OTES - Thermal Emission Spectrometer.

The UK Government views space as a key industrial sector and is supporting industry and academia to advance the UK's global position as a leading provider of space-related technologies and services.

Leonardo UK's centre of excellence for infrared detectors, which originally opened in 1957 in Southampton, was Europe's first purpose-built transistor semiconductor facility. Since its inception, it has operated at the leading edge of infrared technologies for Space, Science and Tactical applications. The Southampton facility provides infrared sensing technology to the UK and globally for commercial spectrometers, space spectrometers (Mars Rover, OSIRIS-REx), earth observation satellites, weather satellites and tactical detectors for numerous platforms.

Leonardo offers a full spectrum of space technologies and services in the UK. As a leader in satellite systems and applications, the company provides robust and reliable ground segment systems for satellite missions, and expert consulting and engineering support. Leonardo also offers downstream applications including geo-information via value-added, user-friendly platforms, as well as cost-effective fixed and mobile satellite communications. Leonardo designs and manufactures optical payloads, solar arrays and radio frequency equipment for both civil and military applications.

Since 2010, UK industry and government have been working collaboratively to achieve an ambitious 20-year objective of capturing 10% of the estimated £400 billion global space market by 2030.

More and more people are being drawn to the space sector, as it operates within such exciting fields of technology, covering everything from space travel and exploration to the environmental monitoring of our own planet.

A NASA satellite launched in February 2024 from Cape Canaveral was fitted with a set of infrared sensors built at Leonardo in Southampton that is so sensitive, it will give NASA unprecedented levels of information about phytoplankton populations that are vital to the health of the global ocean ecosystem. The sensor offers a vast new array of colours, not visible to the human eye, which will share much more detailed information than has been available in the past. The Ocean Colour Instrument (OCI) on NASA's PACE (Plankton, Aerosol, Cloud, ocean Ecosystem) programme is going to reveal a new spectrum of colours of the ocean, equivalent to seeing 256 colours instead of the previous 8, helping us to better understand the complex systems that drive ocean ecology.

Scientists from Leonardo in Southampton also supplied a sensor for HOTSAT-1, a climate monitoring satellite designed to detect thermal hotspots in urban areas to fight climate change. The

Southampton contribution to the satellite is an infrared detector called Superhawk. This programme represents the first use of one of the company's 'commercial off the shelf' 2D products in space.

Leonardo has provided a new infrared sensor with single photon sensitivity that will be used to find habitable planets in space. The advanced infrared sensors are able to resolve the incredibly faint spectroscopic signals that are the hallmarks of a habitable planet. The next generation 2048x2048 pixel arrays in development for NASA will be at the heart of future space telescopes, studying not only exoplanets, but also other important stellar objects with a sensitivity that is an order of magnitude better than any previous infrared sensor. This new sensor technology has been developed over a decade on a number of projects, including the contribution of technology for an important research project that explored black holes which won a Nobel Prize in 2020.

1.4 GDP CONTRIBUTION

1.4.1 Leonardo UK's direct contribution to UK GDP

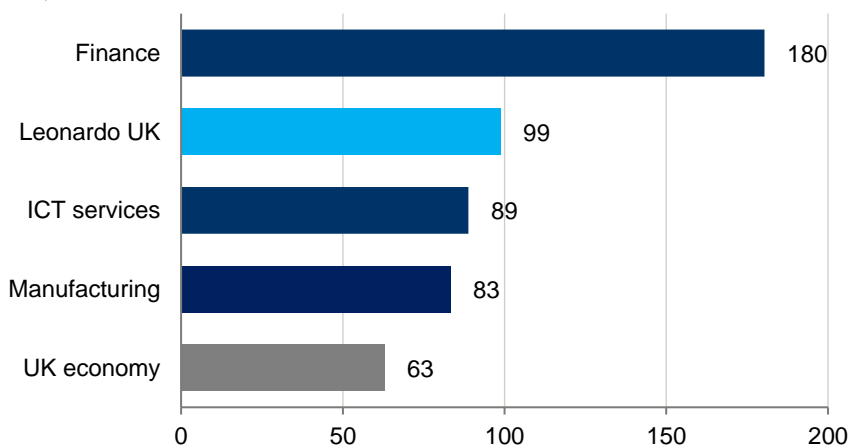
Leonardo UK's operations generated over £2.2 billion of revenue in 2023. Over half of this came from UK customers, with the remainder from export customers and other Leonardo entities, such as the company's Italian operations.

We estimate that in generating this revenue, the company directly contributed just over £810 million to UK GDP in 2023. This was composed of nearly £570 million in employee compensation, which included wages, salaries, and employer pension and National Insurance contributions; approximately £240 million in EBITDA,¹³ and £5 million in business property taxes.

The company's workers are highly productive, generating 57% more in GDP contributions per job than the UK average in 2023. Each Leonardo worker contributed £99,000 on average to GDP, while across the UK economy as a whole the figure was £63,000. Similarly, Leonardo UK's workforce was around 19% more productive than the average for the overall UK manufacturing sector in 2023.

Fig. 7. Average productivity for selected UK industries, 2023

£ Thousands, contribution to GDP



Source: Oxford Economics, Office for National Statistics, Leonardo

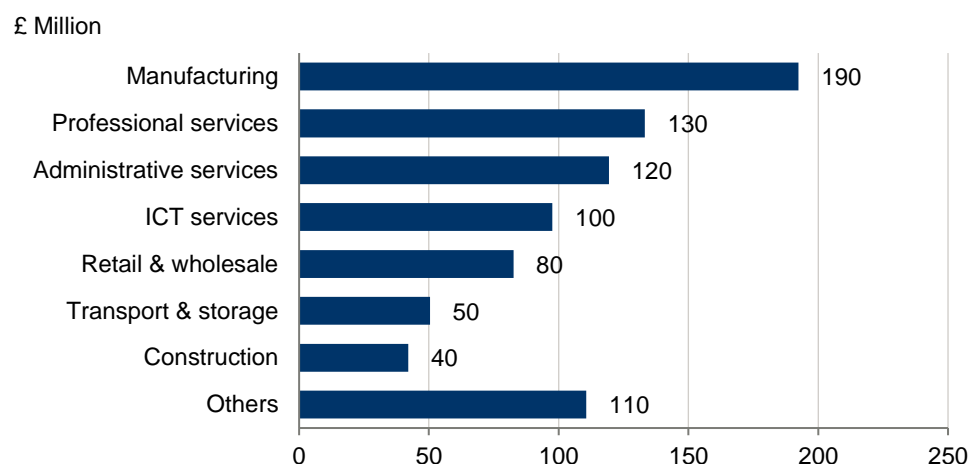
1.4.2 Supply chain contribution to UK GDP

We estimate Leonardo UK's supply chain purchases supported a £830 million contribution to UK GDP in 2023. Reflecting the nature of the company's supply

¹³ Earnings before interest, taxes, depreciation and amortisation, a standard proxy for a company's current operating profitability.

chain, the largest indirect impact was in the manufacturing sector, with a £190 million contribution to GDP, or 23% of the total.

Fig. 8. Leonardo's UK indirect GDP impact by sector, 2023

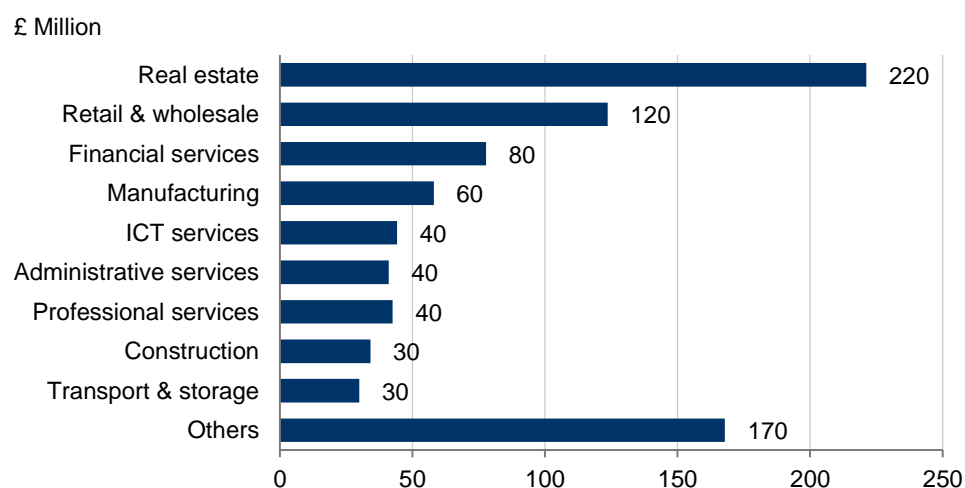


Source: Oxford Economics
Figures may not sum due to rounding

1.4.3 UK GDP supported by worker spending

The spending of Leonardo employees and those in its UK supply chain supported a further £840 million contribution to GDP in 2023. The real estate sector was the most significant area of impact, reflecting rent and mortgage payments, followed by the retail and wholesale sector as consumers made purchases.

Fig. 9. Leonardo UK's induced GDP impact by sector, 2023



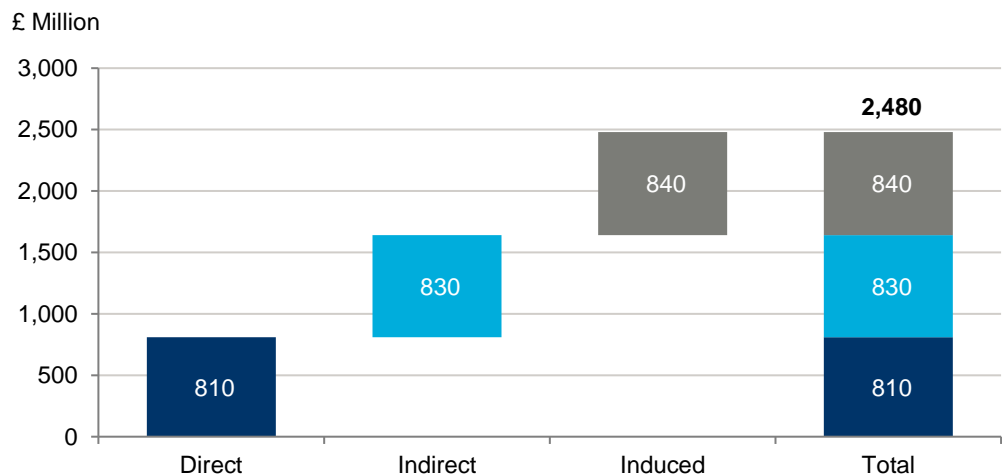
Source: Oxford Economics
Figures may not sum due to rounding

1.4.4 Total GDP contribution

By combining the company's direct contribution with the supply chain and worker spending impacts, we estimate Leonardo UK's operations contributed almost £2.5 billion to the UK economy in 2023.¹⁴

This means that for every £100 of GDP that the company contributes itself, a total of £310 of economic activity was supported across the UK economy as a whole.

Fig. 10. Leonardo UK's total GDP impact, 2023



Source: Oxford Economics

¹⁴ Please note, Leonardo UK's total GDP contribution in the UK is greater than the sum of the divisions presented in the following chapters (Helicopters, Electronics and Cyber Security). This is due to other parts of the company not explicitly presented, such as corporate activity and Telespazio.

This case study box provided by Leonardo**AT THE CORE OF THE UK'S COMBAT AIR AMBITIONS**

Combat Air sits at the heart of the UK aerospace sector and stretches across the four nations of the UK. It has a proven record of delivering substantial benefit to the economy, boosting innovation, high value skills and exports. The sector is a major employer of STEM apprentices and graduates.

Leonardo is one of the UK's four national Combat Air champions, working alongside BAE Systems, Rolls Royce and MBDA UK as a founding industry member of Team Tempest. Together, the partners represent thousands of companies that form part of the UK sovereign Combat Air industrial base.

In their most notable ongoing project, the Team Tempest partners are representing the UK in the Global Combat Air Programme (GCAP), a collaboration between the UK, Italy, and Japan to design and produce a next generation fighter jet for all three nations' armed forces, as well as future exports. The programme is expected to deliver a £37bn GDP contribution in the UK between 2025 and 2070.

As part of this enterprise, Leonardo UK hosts the nation's onshore expertise in combat air sensing and combat aircraft protection. This includes radar, electronic warfare, laser, and electro-optics technologies and, vitally, the skills required to integrate multiple capabilities to deliver more than the sum of their parts.

With Leonardo technology on-board their aircraft, the UK's servicemen and women can see further and target threats without being seen. They can deploy advanced electronic warfare techniques to operate whenever and wherever required and rely on data-driven support capabilities for outstanding availability in the air. All the while securely protected by the world's most advanced defensive technology.

Sustaining this sovereign capability is a national imperative and a key to control in an increasingly uncertain world. With core combat air sites in Luton and Edinburgh, Leonardo UK is building these capabilities upon science and research conducted onshore, and technology designed and produced by highly skilled British engineers, with intellectual property and jobs remaining in the UK for the benefit of the next generation.

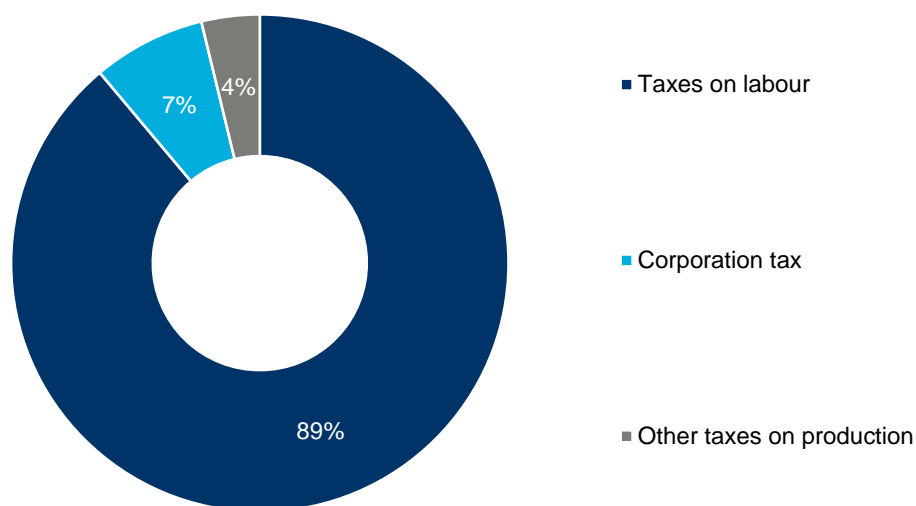
By participating in GCAP, the UK's combat air sector is driving innovation, efficiency and investment in transformative digital technologies to ensure long-term defence resilience.

1.5 DIRECT TAX CONTRIBUTION

Leonardo UK operations contributed a total of approximately £185 million in tax revenue in 2023. Nearly 90% of this was made up of taxes on labour, including employee income tax as well as employer and employee National Insurance contributions. The remainder came from corporation tax and other taxes on production, predominantly consisting of business property rates.

Fig. 11. Leonardo UK's direct tax contribution by type of tax, 2023

Share of total



Source: Oxford Economics

1.6 THE CATALYTIC CONTRIBUTION TO THE UK'S LONG-TERM PROSPERITY

1.6.1 Investment in capital and R&D

Leonardo UK spent nearly £500 million on R&D activities in 2023 alone. This figure covers internal R&D activity as well as spending with academic and SME partners, and has risen significantly in recent years, with a total of £1.4 billion in nominal terms spent over the five years to 2023. This expansion has been driven predominantly by the Electronics Division, which saw research spending triple between 2020 and 2023, with growth in digital enabling technologies such as "data fusion" (combining multiple data streams to create a single richer data source), artificial intelligence, and machine learning. R&D activity increased even more rapidly in the digital security domain, with seven times more investment in R&D in 2023 than in 2020.

As well as R&D performed by Leonardo employees, the company works with customers and industrial partners to advance the transition from initial scientific concepts into new products. For instance, the company's laser-directed energy weapon known as DragonFire was created through a consortium between

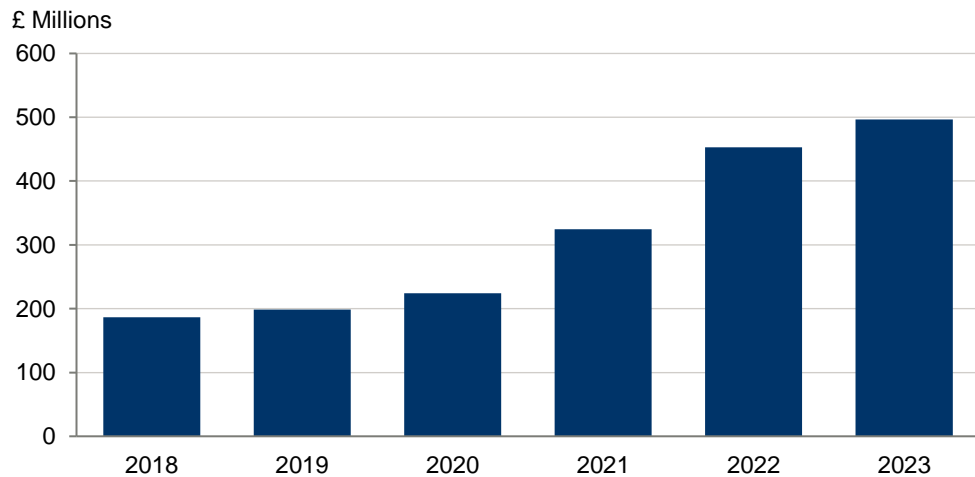
industry and the government. This collaboration enabled the rapid development of this new capability from laboratory science through live demonstrations to appearing in service.

Other examples of ongoing development at Leonardo UK include Proteus, which is the company's autonomous helicopter, and GCAP, which is the UK's next-generation combat air platform. The company's work with SME partners includes support for some of these firms in winning research funding from sources such as the NATO Defence Innovation Accelerator for the North Atlantic fund.

Support for academic partners in 2023 included £8 million of direct spend, as well as enabling academic partners to secure over £146 million of grant funding from the Engineering and Physical Sciences Research Council. Furthermore, the company supported individual academics in securing fellowships from the Royal Academy of Engineers.

While research and innovation enhance the productive capacity of the firm that invests in it, not all of the returns to R&D spending are "private", i.e. captured by the firm itself. Some of the technological advances and innovations that come from R&D inevitably "spill over" into the wider economy, boosting the productivity of other regions and sectors. By engaging in substantial R&D activity, Leonardo is generating wider, long-term productivity benefits for the UK.

Fig. 12. Total value of R&D activity carried out by Leonardo in the UK



Source: Leonardo

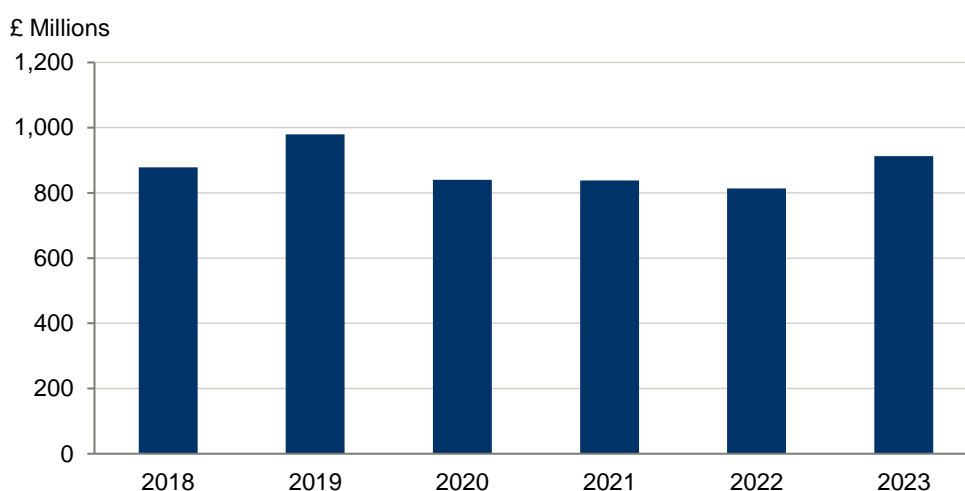
Leonardo also invested £44 million in capital assets in 2023, split evenly between its helicopters and electronics businesses. Investment in capital is economically important, as it helps to grow the productive capacity of both the company and the UK overall.

1.6.2 Exports

Between 2018 and 2023, Leonardo UK operations exported some £5.3 billion of equipment and services in nominal terms to both customers and overseas Leonardo entities, including £930 million of exports in 2023 alone.

This means Leonardo is a strong contributor to the UK government's target of increasing exports to £1 trillion per year.¹⁵ Of the company's 2023 exports, £730 million worth of goods and services were sold to external customers, while £200 million-worth was purchased by overseas Leonardo entities, such as the company's Italian operations.

Fig. 13. Total annual export sales by Leonardo UK's operations



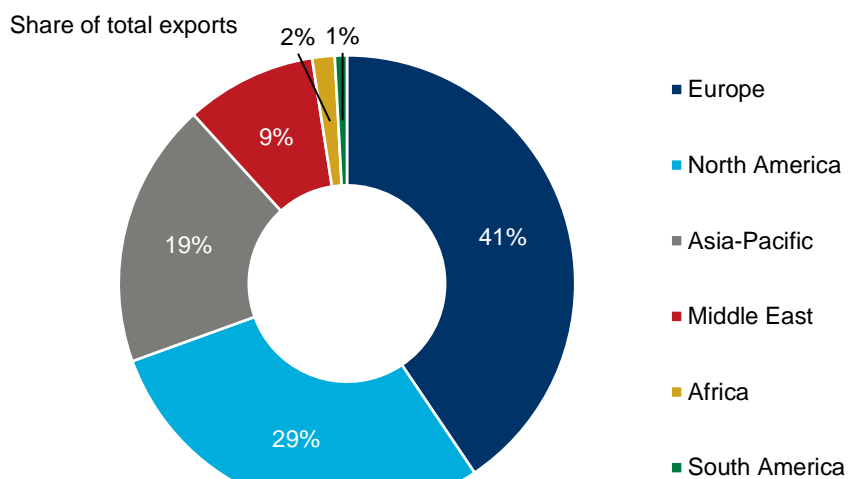
Source: Leonardo

Europe is the largest market for Leonardo, with £730 million exports to external customers, representing 41% of all overseas sales by value in 2023. Norway and Germany were the company's largest customers within Europe.

North America was the company's next-largest export market, with the US accounting for 77% of exports to the continent.

¹⁵ Department for Business and Trade: [Made in the UK, sold to the world](#), 2021

Fig. 14. Total exports split by destination market, 2023



Source: Leonardo
Figures may not sum due to rounding

1.6.3 Skills and training

Leonardo helps to support the upskilling of the UK's workforce through its formal training programmes. In 2023, the company employed nearly 310 graduate trainees and 360 apprentices, as well as industrial placement years for 60 university students.

This section is written by Leonardo

Security as the foundation of Sustainability

Leonardo believes that security is a primary foundational need for any society pursuing sustainability, since it has a direct and material impact on its ability to sustain communities, infrastructure, and innovation.

Sustainability

The company is deeply committed to creating value across four main pillars of sustainability—People, Planet, Prosperity and Governance. Leonardo is exploring digitalisation across all areas of the business, as it can act as a powerful enabler of security and technology that can drive sustainability and climate action forward.

In January 2024, Leonardo UK was an inaugural signatory of the ADS UK Defence ESG Charter. The Charter outlines three key commitments from industry, which include climate transition and clean tech, societal impact, governance and ethics.

As part of its journey towards Net Zero, Leonardo UK is committed to Net Zero for Scope 1 and 2 by 2030, and has already made progress in reducing emissions by 63% from 2019. The company is now developing an action plan for reaching this key milestone by 2030. By 2050, the organisation is focused on reaching Net Zero for its Scope 1, 2 and 3 emissions (Scope 3 emissions as defined in PPN 06/21) against the baseline year.

Leonardo gave further impetus to its climate-related strategy, by committing itself to the Science Based Target initiative (SBTi), to define an ambitious target to reduce direct and indirect CO₂ emissions, in line with the objectives set in the Paris agreement. Recently, Leonardo received validation for these Science Based Targets on near-term climate targets and published a new Sustainability Plan 2024-2028, with key targets embedded within the group Industrial Plan.

The main driver of reductions to date has been through the procurement of renewable electricity, while developing further projects that reduce energy usage across the organisation. The company has received several awards in major sustainability ratings, positioning Leonardo as a leader in its commitment to climate change, confirmed by a CDP assessment (former Carbon Disclosure Project). Leonardo has been listed in the Dow Jones Sustainability Indices for 14 years, with the highest score in the Aerospace and Defence industry for the fourth year in a row.

Significant investments have improved efficiencies to reduce energy use and greenhouse gas (GHG) emissions across Leonardo. These have included investment in LED lighting across all sites and the adopting of Lighting as a Service (LaaS) on its Yeovil site. Leonardo has installed Electric Vehicle (EV) Charging Points across its facilities, to support Leonardo employees who are transitioning to EVs. This has been complemented by the roll-out of a new salary sacrifice Green Car Scheme, to encourage Leonardo employees to transition to EVs to reduce GHG emissions generated by employee commutes.

As signatories to the Defence Aviation Net Zero Strategy, Leonardo continues to invest in more efficient cooling towers to support industrial manufacturing processes. It has also improved its heating, ventilation, and air conditioning (HVAC) infrastructure, using gases with lower global warming potential. Work continues to replace gas-heating systems with lower emissions. There has been an overall reduction in the company's office footprint, alongside the maximisation of its office spaces, to improve energy efficiency. Humidity control studies are underway in its manufacturing facilities, to reduce energy consumption.

Leonardo has started to measure and reduce the emissions generated from travel and commuting. In parallel, work is being carried out to understand how products can be designed for sustainability. The company is also exploring routes through which it can collaborate with its supply chain on sustainability topics.

Leonardo is focused on deepening its employees' engagement and sense of personal agency and action in sustainability. Recent initiatives have included the first 'Couch to Carbon Zero' campaign, where UK colleagues took part in a climate challenge over 10 days to help them to learn more about how they can play a part in tackling climate change and enhancing nature.

Employees participated in another first, the company's inaugural Nature Action Day, where teams of colleagues from all of its UK divisions worked alongside veterans and suppliers to plant 6,000 hedgerow saplings specifically chosen to have a positive impact on nature, whilst also creating over 100 working days for UK veterans.

Biodiversity studies have been launched across the company's UK sites, to better understand how Leonardo can protect and enhance biodiversity within its operations.

A new UK wide Sustainability Network has been created to build colleague engagement and education on sustainability, with over 200 people signed up to date. Leonardo is an IEMA partner, with over 50 affiliate IEMA memberships given to colleagues. For the first time, a sustainability engagement question was included in an employee survey, to measure their engagement with sustainability. Additionally, Leonardo is a member of Sustainability Leaders, enabling close collaboration and the sharing of best practice with other companies across a wide range of sectors.

As part of the company's activity to raise awareness of sustainability across its supply chain, Leonardo ran its first Supplier Sustainability Workshop for over 40 SMEs to share knowledge, tools and resources with its supply chain to help them on their own sustainability journey.

In Yeovil, Leonardo is in the process of supporting the development of a new Solar Farm. Once operational, the Solar Farm will provide enough electricity for 26% of the site's usage, whilst also creating an 80% biodiversity gain over its lifetime.

Inclusion & Diversity

Driving an inclusive and diverse community means creating an engaging and supportive working environment where people feel that they are seen, heard and valued.

Leonardo is deeply committed to maintaining dynamic channels of two-way communication between employees and management, to ensure that their working culture evolves in response to its people's changing priorities and needs.

This is reflected in the high degree of visibility that Leonardo gives to the celebration of diversity both internally within the company and in the public domain. For example, inclusion and diversity (I&D)-themed posts account for 20% of the company's external output on LinkedIn. This is matched by a high volume of internal initiatives and ongoing employee awareness campaigns. These include stands and exhibitions on sites, 'Lunch and Learn' sessions and participation in external public events to support employees from a wide range of diverse communities.

Across industry, it is now widely acknowledged that the greater the diversity of its employee population, the higher the quality of the innovation produced, since it is informed by a wealth of diverse perspectives and experiences.

The company recognises that having a variety of people from different backgrounds, cultures, and career experiences enhances its working environment, since it fosters mutual respect amongst colleagues and allows individuals to bring their whole self to work and perform at their best. A culture of inclusion goes on to create an environment for greater collaboration, innovation, and opportunities to develop as an organisation.

For this reason, I&D is a commercial imperative that helps Leonardo stay relevant, attract a broad pool of talent, grow its brand, and improve its competitiveness. Leonardo promotes an active culture of I&D to foster a welcoming work environment where everyone feels they can be themselves.

As part of the company's commitment to I&D, Leonardo is a member of a number of external organisations, such as Inclusive Employers and Employers for Carers, the Carers UK business forum, which helps employers to develop a carer-friendly workplace that recognises, respects and values employees juggling work and unpaid care. All of these memberships help the company to continue to evolve and enhance its inclusion strategy, whilst leaning on best practice.

Leonardo is a member of the Business Disability Forum, the leading business membership organisation in disability inclusion. As a member, Leonardo has access to expert advice, support, and events to help them ensure that employees with disabilities are included in everything that they do.

The number of women working at Leonardo UK has increased from 16% in 2018 to 21% in 2023. In April 2024, Leonardo UK published its latest Gender Pay Gap (GPG) report, confirming that the median GPG reduced from 17.00% in 2021 to 12.40% in 2023.

Since partnering with Springboard in 2020, over 200 women from across Leonardo UK have taken part in 13 cohorts of a development programme designed to empower women. This includes enhancing participants' skills and abilities, along with challenging power and equality, while building confidence, assertiveness and a positive image at work and at home.

A Springboard conference is held annually, allowing all Springboard participants to come together, further invest in their professional and personal development, and build their networks with Leonardo colleagues globally. It forms a key investment in the action Leonardo is taking to increase the gender diversity within the global business.

Leonardo is a proud supporter of the Women in Defence mentoring programme, having participated since 2021. This nine-month mentoring partnership sees women from across the business being mentored by professionals from external Defence organisations. For every mentee, Leonardo also provides a mentor who is partnered with a mentee from an external organisation in the Defence sector. This two-centred approach allows Leonardo to bring a broad range of insights into the company, both in a personal and professional capacity.

Navigator is a Leonardo UK development programme for men who are looking to identify practical and realistic steps to fulfil their potential. It encourages participants to examine their home and work life – in order to build new ways of seeing themselves and addressing how they respond to difficult situations and to the people they interact with. Ultimately, Navigator is designed to enable participants to manage any challenges they face with a greater degree of confidence.

For Leonardo, the Navigator programme is part of its prioritisation of greater support around personal and career development, men's health, mental health, and wellbeing, as part of their I&D strategy.

To establish a voice amongst underrepresented employees and tackle workforce inequality, Leonardo has created Network Groups for the following groups: people with disabilities and neurodiverse conditions, people with caring responsibilities, gender balance, veterans and reservists, ethnicity inclusion, wellbeing and also our LGBTQ+ community.

Since becoming a member of the Association For Black and Minority Ethnic Engineers (AFBE-UK) in 2021, Leonardo has worked with the organisation to promote understanding and inclusivity among the Leonardo workforce and empower those from diverse ethnic backgrounds, to share their views and explore career opportunities across the business.

This collaboration has included participating in the AFBE Mentoring programme, by enrolling mentors and mentees, as well as launching a reverse mentoring programme, which has seen senior leaders in the UK business learn more about the challenges faced by ethnic minorities. This has also extended to working with our People Leaders, to support their learning in creating more ethnically diverse teams and team cultures. Leonardo has also partnered with their school engagement programme, 'Making Engineering Hot', regularly speaking about careers in engineering at their events, as well as sponsoring the AFBE Young BME Professional of the Year Award. Leonardo also regularly supports AFBE UK recruitment fairs, with speakers from the company regularly participating in motivational careers events and presentations.

This year Leonardo was listed in the 'Top 50 Great British Employers of Veterans' and has an active Armed Forces Network that provides a supportive community to current and former members of the military and their families. Network members support veterans' transition from military to civilian life in industry, ranging from special events to more hands-on practical guidance, mentoring, and support.

Leonardo promotes a mentoring culture for people across all business disciplines, so that they can obtain tailored support and encouragement to shape their professional growth. The company offers its people continuous, targeted career development and training initiatives that aim to identify and nurture talent, while enriching the skills and competences of the entire company.

On 30 April 2024, Leonardo announced the launch of a new programme in partnership with Future Leaders, a social mobility partner committed to supporting career pathways for young people. Future Leaders currently works with 300 schools offering a range of activities, programmes, work experience, and mentoring.

The six-month programme will support 25 young women from schools in Luton and North London, in developing their resilience, skills, and confidence, to help them achieve their career aspirations. The programme will see the students attend a further five days of learning and development at the Leonardo site in Luton between May-October.

Many Leonardo engineers and business professionals have volunteered their time to meet their Future Leaders cohort. They will be sharing career stories, bringing to life the work they do in Leonardo, as well as providing information on the range of early careers programmes Leonardo offers young people at the start of their career journey.

The programme forms part of Leonardo's I&D strategy, with the company committed to increasing the number of women throughout its business and across its eight UK sites.

The Purpose Coalition seeks to improve social mobility in the UK and it has published a new report that shows how one of the UK's biggest defence and security companies is benefitting disadvantaged regions by providing life-changing career opportunities. Leonardo has worked with the Purpose Coalition to develop a 'Levelling Up Impact Report' which sets out exactly how it is contributing to the levelling up agenda and how it is having a positive social impact on its employees, its customers and the communities it serves. Leonardo has had a longstanding commitment to this, building on a strong legacy of social value throughout its projects.

The creation of opportunities is a crucial pillar of the levelling up agenda, in delivering equality of opportunity. Leonardo has demonstrated a strong commitment to delivering positive destinations post

16+. Leonardo increased its Early Careers community of Apprentices, Graduates, and Industrial Placements from around 600 in 2022 to over 900 by the end of 2023, a 50% increase.

STEM Engagement

Across the UK, Leonardo has over 200 STEM ambassadors and supporters who engage with local schools and colleges to promote STEM awareness. The company's STEM strategy aims to build young people's confidence in STEM along the entire chain of employment, from initial awareness of STEM careers at school, right through to taking up a role at the organisation. An underpinning aspiration is to draw more young people into the engineering industry as a whole, for the longevity and prosperity of UK industry.

With sites in socially disadvantaged regions, young people often move out of the area to find job opportunities. STEM Ambassadors are working to build early awareness at school, so students can see themselves pursuing roles in advanced engineering without having to leave the region. Long term this has the effect of not only bolstering the Leonardo talent pipeline, but also retaining prosperity within the region.

Feedback from teachers confirms that students respond more readily to people of a similar age and because Leonardo has over 900 young people in apprentice and graduate programmes at any one time, they are active role models who still have recent experience of school and can connect with students effectively. However, doing this while also convincing their parents and teachers that STEM represents a viable career choice can be challenging. So diverse approaches are taken to reach these important cohorts through a variety of routes.

These include the Big Bang Fair, the largest celebration of STEM in the UK for young people. Focused on increasing diversity in STEM, the event was attended by over 15,000 students from across the UK last year. Throughout the event, Leonardo's STEM Ambassadors inspired and engaged the next generation of engineers, encouraging them to consider a career in STEM with dynamic exhibits that included infrared camera selfies and robotic games.

In 2023, Leonardo provided work experience placements for over 180 students from schools across the UK. During these placements, students undertook tasks that demonstrated different aspects of engineering whilst developing team working, problem solving, and presentation skills. Such placements continue to offer a range of opportunities to school-aged students who are at the stage of exploring potential employment.

Each year, Leonardo participates in the 'Girls into Engineering' course as part of an ongoing partnership with the education charity The Smallpeice Trust. 'Girls into Engineering' is a three-day residential course at Loughborough University for 100 girls aged 12 to 14. In 2023, Leonardo co-sponsored the course alongside GE Healthcare. Leonardo graduates, industrial placement students, and apprentices led a dynamic 'design and make' activity, encompassing hardware, software and mechanical elements. During the course, students developed their soldering skills, mounted sensors and navigated buggies through challenging terrains. The Leonardo team further enriched the experience with insightful career talks and interactive Q&A sessions, sharing personal journeys. After the course, 95% of students said they were more aware of potential engineering careers, and 93% said the course helped them consider studying engineering further.

Since 2005, the EDT and Leonardo have worked together to inspire the next generation of STEM professionals. Throughout the partnership, Leonardo has offered Industrial Cadet opportunities at Bronze, Silver and Gold level as well as welcoming students on Industrial Placements.

Across each of Leonardo's eight sites, STEM teams and Ambassadors support numerous local events throughout the year. For example in February 2024, Leonardo volunteers supported an

Aerospace Skills Week hosted by the King's Foundation STEM team at Dumfries House, to help build young people's awareness and confidence in their STEM skills.

In March 2024, Leonardo Southampton STEM ambassadors participated in the Royal Institution Masterclass at Barton Peveril College. These masterclasses aimed to introduce computer science skills to young people, to demonstrate how they can be used in interesting and innovative ways.

Social Value

The company views Social Value as being central to its current and future activities, as it magnifies its contribution to industry and society. As part of this activity, Leonardo proposals, programmes, and contracts are evaluated not just in terms of their ability to deliver on capability, technology or pure product performance, but also from the point of view of their potential to impact the economy, the natural environment, and society.

Leonardo has embarked on a new partnership with the Social Value Portal. The Social Value Portal team is currently helping the company to develop its Social Value strategy in line with its existing values. The Social Value Portal offers an online solution that allows organisations to measure and manage the contribution that their organisation and supply chain makes to society.

A recent example of Leonardo activity in the area of Social Value can be seen in a business proposal. On behalf of the Royal Navy, DE&S Future Capability Group (FCG) sought proposals from industry for the demonstration of an Uncrewed Air System (UAS) that had the potential to transport defined payloads to and from ships within a deployed fleet. The assessment criteria for the programme included three of the five Social Value criteria, including 'Fighting Climate Change'.

Responding to the Fighting Climate Change element of the UK Social Value agenda, Leonardo reached out to several local environment organisations to gain their input and advice.

A Leonardo employee recommended contacting Ham Hill Country Park, a country park close to the Yeovil site, since it is an integral part of the local community and offers fantastic opportunities for scenic dog walks, walking, running, playing and wildlife watching, with far-reaching views across Somerset.

In discussion with Ham Hill Country Park, they made Leonardo aware of an existing long-term biodiversity project that could become a potential beneficiary of our UAS HLC commitment.

The 'Shrill Carder' bee is one of the rarest bumblebees in the UK and can now only be found in seven areas across the south of England. Their decline in recent years can be directly attributed to a loss of habitat and the use of pesticides. Ham Hill has been identified as a site to which Shrill Carders could naturally recolonise, due to the potential habitats available and its close proximity to existing populations. The work needed to create habitats suitable for Shrill Carder colonies at Ham Hill involves the restoration of field margins that run alongside dry stone walls to improve biodiversity, provide late flowering plants, and maintain hibernation sites.

Leonardo sought and received agreement from DE&S FCG to amend its original commitment to enable support for this alternative project. Consequently, Leonardo has reached an agreement with Ham Hill Country Park to sponsor, along with other organisations, the 'Save our Shrills' project. As well as a financial commitment to support this work, Leonardo will offer volunteer working parties (employees and their families) to work with the Rangers at Ham Hill to undertake this valuable work.

Leonardo intends that this project will be just the beginning of a long-lasting partnership with Ham Hill Country Park and the company has already been in contact with the organisation regarding potential future initiatives. Leonardo has previously used an area on the Ham Hill site to carry out rotor blade testing in the late 1950s. However, this area has now become overgrown and inaccessible. There

have been discussions about helping to fund the clearing of this area and additionally, creating educational materials that reference our historical links with the park.

In addition to supporting the 'Save our Shrills' project, Leonardo invited Ham Hill Rangers to their Yeovil site to host a DIAL (Dial in and learn) session, which will raise employee awareness on the work they carry out at Ham Hill and the potential volunteering opportunities our employees could support. Leonardo also supports PromiseWorks (a local charity that offers mentoring services to disadvantaged children and young people across the county) as a part of their Trainee led charity. The company is hoping to offer children who have limited access to nature the chance to visit Ham Hill and get involved with a number of initiatives.

2. THE ECONOMIC IMPACT OF LEONARDO UK'S HELICOPTERS BUSINESS

£890 million

The contribution to UK GDP
in 2023 of Leonardo UK's
helicopters business



12,400 jobs

Total jobs supported in 2023
by Leonardo UK's
helicopter business



£45 million

Total R&D activity performed
in 2023 by Leonardo UK's
helicopter business



£500 million

Total exports in 2023 by
Leonardo UK's helicopter
business



2.1 EXECUTIVE SUMMARY

Leonardo UK's helicopter business produces helicopters from the initial design phase, through development, manufacturing, and assembly to delivery to the customer and through-life support. This capability is unique within the UK as the country's only onshore original equipment manufacturer for helicopters. The business is an important supplier to the government, helping to support the Ministry of Defence (MOD)'s strategic aims. In 2016, the MOD and Leonardo renewed a 10-year Strategic Partnering Arrangement.

This chapter examines the ways that the helicopter business delivers economic benefits to the UK.

CORE ECONOMIC IMPACTS

We calculate **Leonardo UK's helicopter business's total contribution to UK GDP was £890 million in 2023**. This consisted of £230 million from the operations of the business itself, £350 million as a result of procurement spending and £310 million as a result of consumer spending by employees of Leonardo and its supply chain.

We estimate **this economic activity supported a total of 12,400 jobs** around the UK in 2023. This comprised 2,700 jobs directly with the business, 5,800 as a result of supply chain spending and 3,900 supported by Leonardo and supply chain workers' wage spending.

Workers at Leonardo UK's helicopter business are 35% more productive than the average UK worker. Leonardo UK's workers contributed £85,000 a year to GDP in 2023 on average, compared to a UK average of £63,000 that year.

The business made just over £500 million of export sales in 2023 alone, and £2.3 billion of exports in the five preceding years.

CATALYTIC IMPACTS: LEONARDO UK'S CONTRIBUTION TO THE UK'S LONG-TERM PROSPERITY

Leonardo UK's helicopter business conducted £45 million of R&D activity in 2023 and a total of £230 million in the five preceding years. This includes

self-funded research as well as R&D activity carried out as part of customer contracts.

Through training schemes, the business is contributing to boosting the skills of the UK workforce, such as employing 30 graduate trainees and 120 apprentices in 2023.

2.2 INTRODUCTION

Leonardo UK's helicopter business is involved with the full life cycle of each of the company's helicopter products. This covers initial research and development, through design and testing, as well as component production and aircraft assembly, training and post-sales support, repairs, and upgrades. The business is based in Yeovil, Somerset, on a site that has aircraft manufacturing links dating back more than a century.

This chapter sets out the total economic impact that Leonardo UK's helicopter business makes on the UK economy, including its contribution to the country's long-term prosperity through exports, funding research and development (R&D), and maintaining a specialised, high-value engineering skills base.

2.3 EMPLOYMENT CONTRIBUTION

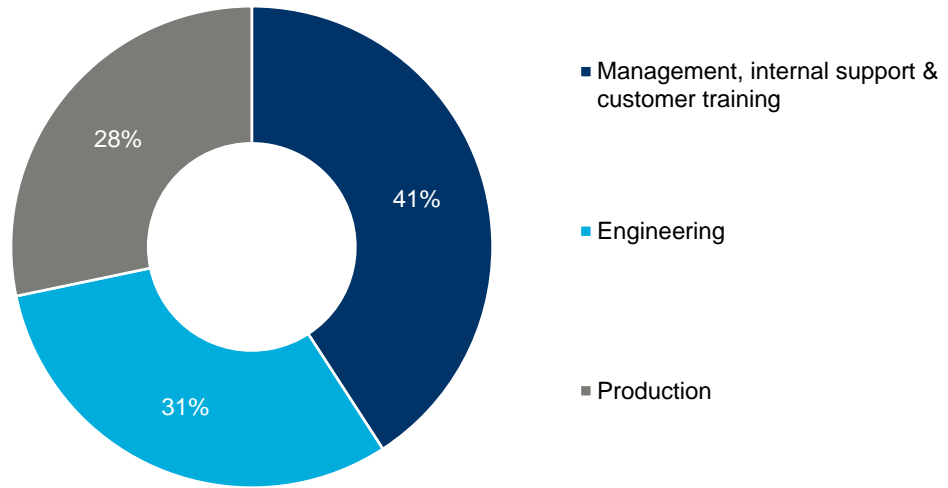
2.3.1 Direct employment

In 2023, 2,700 people worked for Leonardo UK's helicopter business. Nearly 830 workers (31% of the total) were highly skilled engineers holding a degree qualification in roles such as design or R&D. A further 760 (28%) were production workers building Leonardo products. The remaining 41% of employees were split across management, internal support, and customer training.

Leonardo UK's helicopter business supports young professionals in their early careers. In 2023, it employed 150 full-time trainees, including 30 graduate trainees and 120 apprentices.

Fig. 15. Breakdown of Leonardo UK's helicopter business employee roles, 2023

Share of total



Source: Leonardo

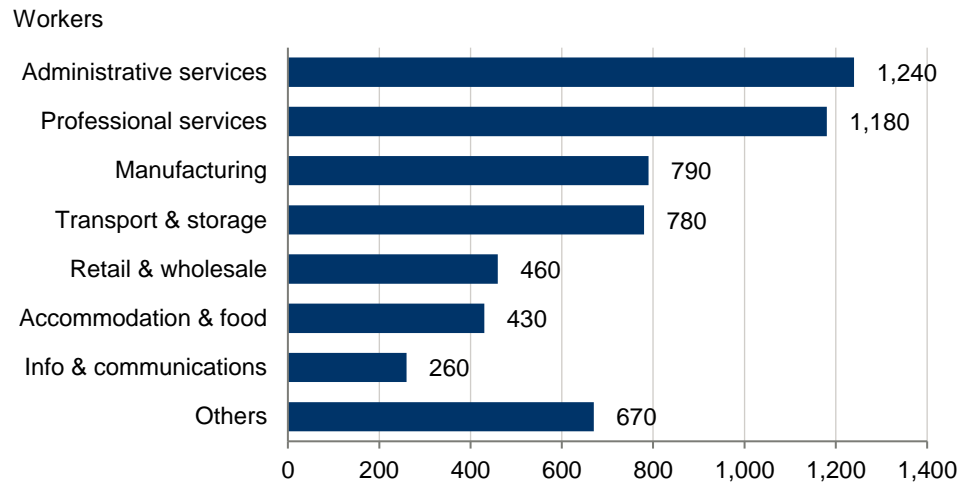
2.3.2 Supply chain contribution to employment

In 2023, Leonardo UK's helicopter business made £400 million of supply chain purchases, supporting an estimated 5,800 jobs around the economy.

The largest employment impact was felt in business services. This was split relatively evenly between administrative services such as recruitment agencies and professional services such as engineering and other technical services. Reflecting the company's activities in helicopter assembly and production, the third largest employment impact was in the UK's manufacturing sector.

Analysis from Leonardo indicates that £38 million of spending by the Helicopters business was in the 20% most deprived areas of the UK, of which a fifth was with SMEs.

Fig. 16. Leonardo UK's helicopter business indirect employment impact, 2023



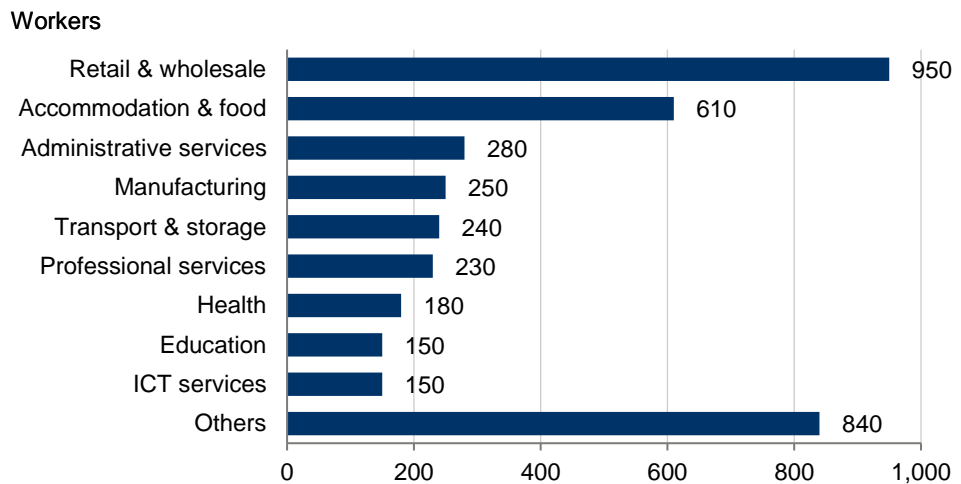
Source: Leonardo, Oxford Economics

2.3.3 Employment supported by workers' spending

Leonardo UK's helicopter business paid a total of £130 million in wages to employees. We estimate spending by these workers, as well as by those in the company's supply chain, supported 3,900 jobs across the UK.

Consumer-facing businesses such as the retail and wholesale sector and the accommodation and food services industries received the largest impact, at 40% of the total employment supported.

Fig. 17. Leonardo UK's helicopter business induced employment impact, 2023



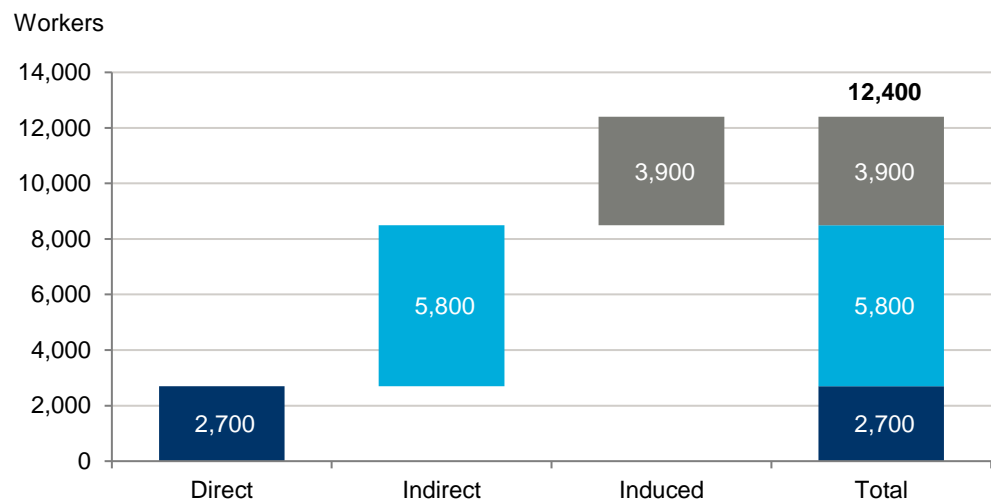
Source: Oxford Economics

2.3.4 Total employment contribution

Bringing together the direct, indirect and induced impacts, we estimate Leonardo UK's helicopter business supported 12,400 jobs in 2023 across the UK.

This means that for every 100 jobs directly with the company, a total of 460 were supported across the economy.

Fig. 18. Leonardo UK's helicopter business total employment impact, 2023



Source: Oxford Economics

This case study box provided by Leonardo**HOME OF BRITISH HELICOPTERS**

Leonardo is one of very few organisations in the world, and the only one in the UK, with an end-to-end capability that includes the design, development, manufacture, testing and certification of helicopters, as well as the subsequent training and support for customers. This has resulted in the official name of the site as the Home of British Helicopters.

Leonardo has been delivering helicopters from its Yeovil site since the 1940s and over the last ten years, on average the company has introduced one aircraft a year into service for its UK MOD and international customers. The company's eight-decade record of exporting helicopters from the UK has seen aircraft made in Britain flying with customers in Asia-Pacific, Europe, North Africa, and North America.

The Home of British Helicopters continues to play a fundamental role in the defence of the nation. During the Great War, the town built around 1,100 aircraft, including seaplanes and bombers. Today, the same ground hosts a cutting-edge Leonardo factory that designs, manufactures, and supports helicopters for the British Army, Royal Navy and their allies, although many nods to the history of the site survive, such as its WWII-era test pilot's office. Its latest-generation helicopters include the AW101 Merlin and AW159 Wildcat, which both support the UK's HMS Prince of Wales aircraft carrier.

Leonardo in Yeovil has exported helicopters all over the world for more than eight decades. The site has 34 customers across 26 countries and supports over 500 aircraft around the globe. Customers range from Norway and Canada to Japan and South Korea.

Underpinning all of this success are the highly-skilled people who work at Leonardo in Yeovil and at its partner sites from Wattisham Airfield and RNAS Culdrose to RNAS Yeovilton.

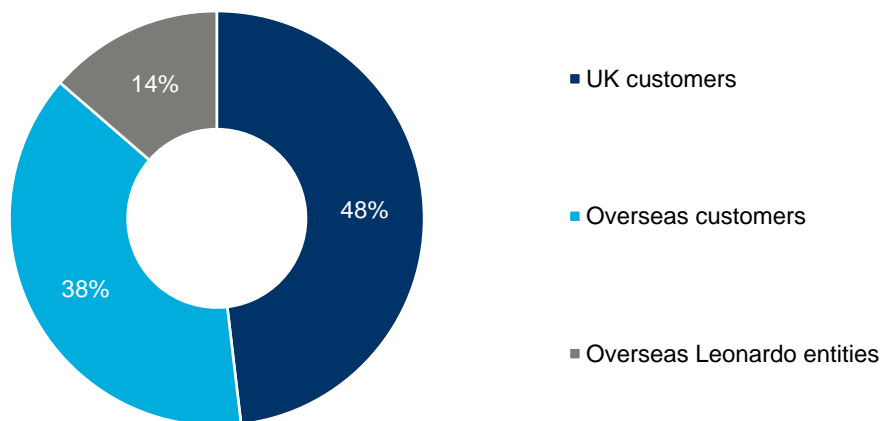
2.4 GDP CONTRIBUTION

2.4.1 Direct contribution to GDP

Leonardo UK's helicopters business generated £820 million of revenue in 2023. The majority of this, approximately 60%, was to export customers, including £110 million to overseas Leonardo entities such as the company's Italian operations.

Fig. 19. Breakdown of Leonardo UK's helicopters business revenue, by source of demand, 2023

Share of total revenue

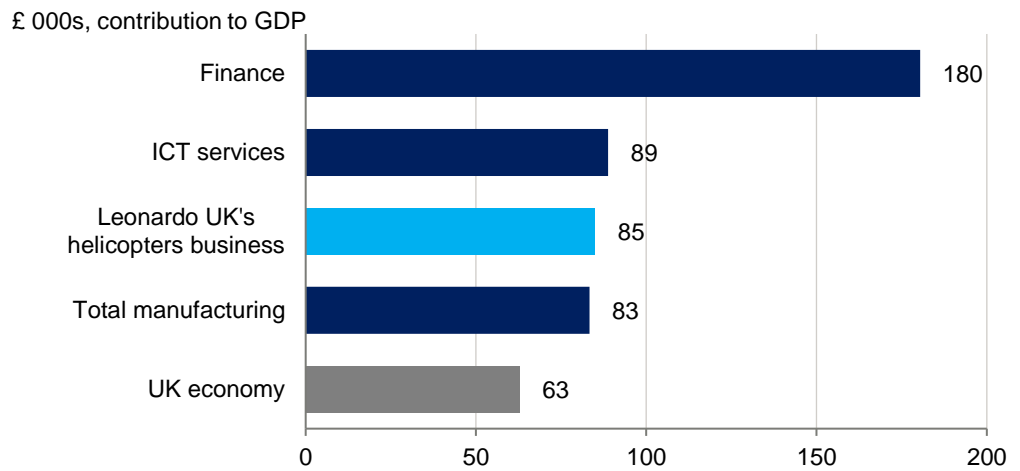


Source: Leonardo

From this revenue, the business contributed approximately £230 million of gross value added (GVA) to GDP. The largest component of this was £170 million in employee compensation, including wages and salaries and employer pension and National Insurance contributions. The remainder consisted of profits and a small amount of business property taxes.

Leonardo UK's helicopter business workers are highly productive, contributing an average of £85,000 to GDP. This is approximately 35% more than the overall UK average, which stood at £63,000 per worker in 2023.

Fig. 20. Average GVA per worker levels for selected UK industries, 2023

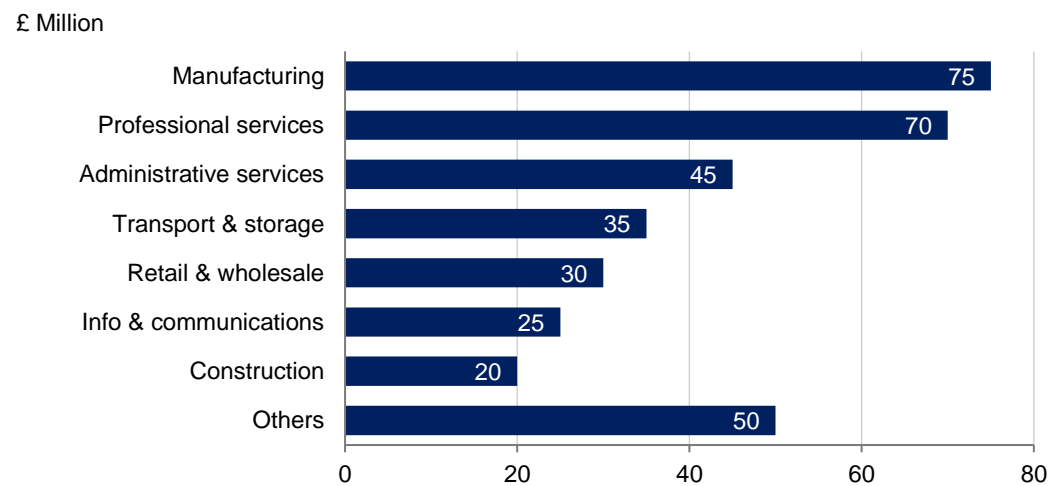


Source: Oxford Economics, Office for National Statistics, Leonardo

2.4.2 Supply chain contribution to GDP

The supply chain spending made by Leonardo UK's helicopter business drove an estimated £350 million indirect GDP impact in 2023. The largest impact was felt in the manufacturing sector, which accounted for 21% of the total.

Fig. 21. Leonardo UK's helicopter business indirect GDP impact, 2023



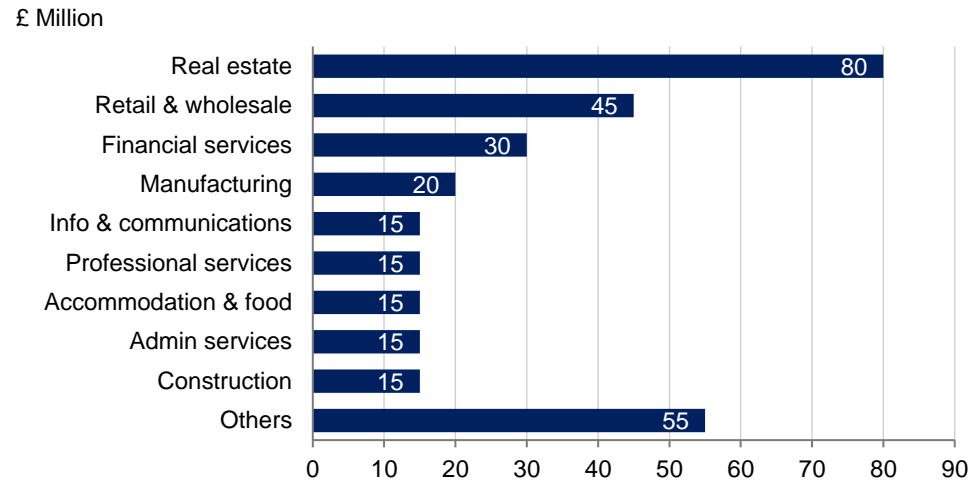
Source: Oxford Economics

2.4.3 GDP supported by worker spending

The wages distributed by Leonardo and its suppliers had a further induced impact on the UK GDP of £310 million in 2023. Just over a quarter (26%) of this impact was felt in the real estate sector through workers spending on rent and

mortgage payments for their homes, while the retail and wholesale industry saw a £45 million impact.

Fig. 22. Leonardo UK's helicopter business induced GDP impact, 2023



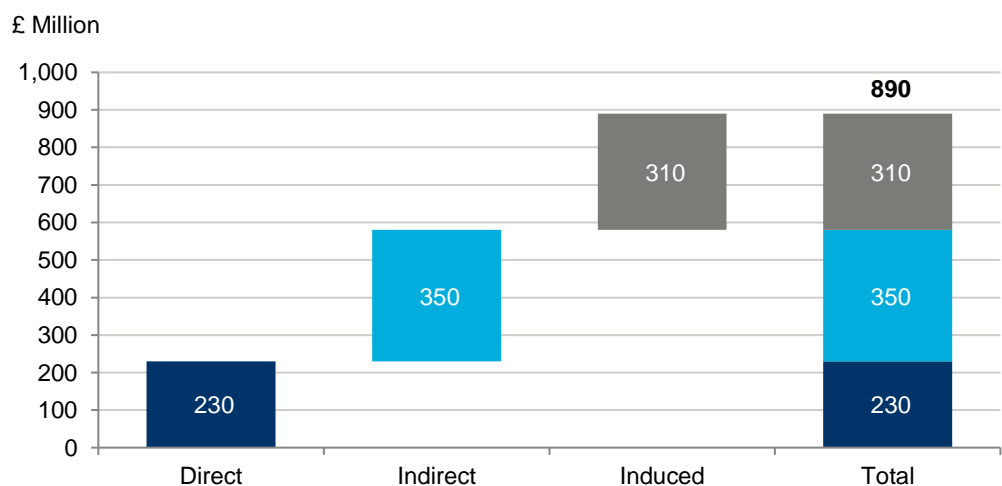
Source: Oxford Economics

2.4.4 Total GDP contribution

In 2023, the activity of Leonardo UK's helicopter business contributed an estimated £890 million to the UK economy.

This means that for every £100 that the company directly contributes, a total of £390 of economic activity was supported across the UK economy as a whole.

Fig. 23. Leonardo UK's helicopter business total GDP impact, 2023



Source: Oxford Economics

This case study box provided by Leonardo**FORGING NEW PATHWAYS OF INNOVATION ON FUTURE PROGRAMMES**

Leonardo UK's Future Programmes Group was established in 2022 as a Centre of Excellence for emerging rotorcraft technologies, and this innovation hub is already proving to be a game-changer for the future of helicopter design and development.

The company is exploring innovative technologies and approaches to design and manufacture, engaging talented individuals from across Leonardo and promoting creative thinking to garner a new way of looking at design and development.

The initial focus of the group has been project Proteus, the UK Ministry of Defence's (MOD) Technology Demonstrator Programme (TDP) into the future of military maritime vertical take-off and landing (VTOL) systems. Work is being carried out at pace to deliver this collaborative project alongside the MOD.

For Proteus, Leonardo and its Future Programmes Group are working alongside the MOD's Defence Equipment and Support's (DE&S) Future Capability Innovation and the Royal Navy, to focus on de-risking emerging technologies and concepts.

Proteus is an evolution of the MOD's Rotary Wing Uncrewed Air System (RWUAS) Concept Capability Demonstrator (CCD), which Leonardo has been involved in since 2013. In July 2022, Leonardo was awarded a four-year contract for the RWUAS CCD Phase 3 TDP.

Following this, in September 2023, Leonardo and the MOD unveiled a conceptually mature design of Proteus at DSEI in London. It showed a 2-3t technology demonstrator based on a single main rotor design and this was exhibited with the ambition for this demonstrator to take flight in the middle of this decade.

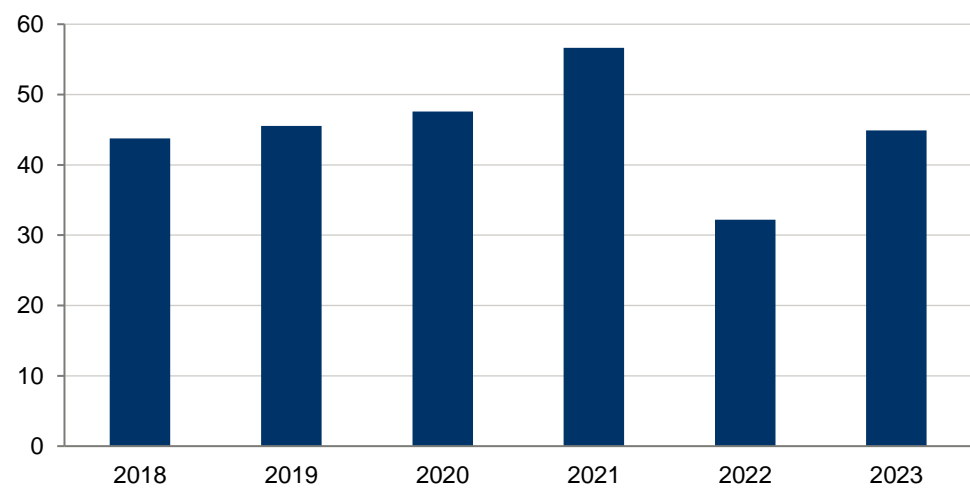
2.5 THE CATALYTIC CONTRIBUTION TO THE UK'S LONG-RUN PROSPERITY

2.5.1 Research and development and capital investment

Leonardo UK's helicopter business unit performs a significant amount of R&D activity, including £45 million worth in 2023 alone. This followed total activity worth £226 million over the preceding five years, in nominal terms. Such investment helps to drive innovation that enhances the UK's ability to produce advanced rotorcraft. They also lead to wider spill-over effects, where other parts of the UK economy enjoy productivity benefits from the outcomes of research.

Fig. 24. Total R&D spending by Leonardo UK's helicopter business

£ Millions, nominal terms



Source: Leonardo

The company also invested £10.6 million in capital projects in 2023, including £2.2 million with UK SMEs. Capital investment is an important factor in driving long-term economic development, as it helps to boost productivity levels.

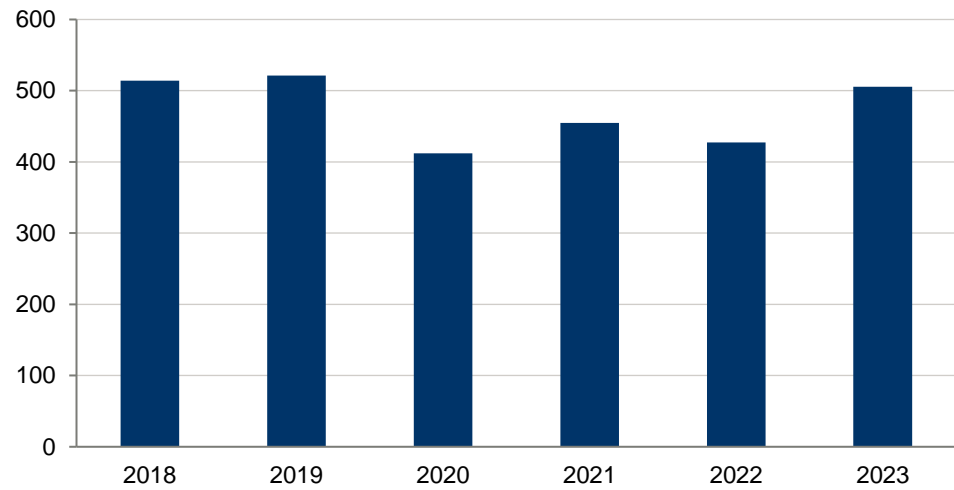
2.5.2 Exports

Leonardo UK's helicopters business makes a major contribution to the UK's export performance, recording £510 million in overseas sales in 2023 alone. This includes over £110 million to overseas Leonardo entities and over £390 million to other overseas customers. The company also made a total of £2.3 billion in export sales in the five years before that, between 2018 and 2022.¹⁶

¹⁶ In nominal terms.

Fig. 25. Total annual export sales by Leonardo UK's helicopters business

£ Millions, nominal terms

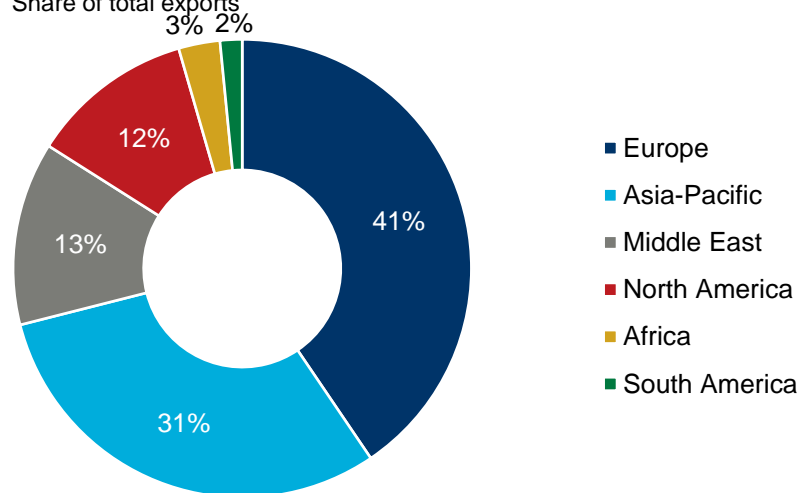


Source: Leonardo

Europe was Leonardo UK's largest market for helicopter exports, with 41% of the total. Norway was the single largest customer, with other large export markets for 2023 including Japan, the Kingdom of Saudi Arabia, and Canada.

Fig. 26. Total exports split by destination market, 2023

Share of total exports



Source: Leonardo Helicopters
Figures do not sum due to rounding

This case study box provided by Leonardo**THE ONSHORE PROPOSAL FOR THE UK'S NEW MEDIUM HELICOPTER REQUIREMENT**

Leonardo is putting forward the AW149 military helicopter for the UK MOD's New Medium Helicopter (NMH) competition, which sees the replacement of the incumbent Puma fleet utilised by the British Army. If successful, the platform will be built at the Home of British Helicopters.

From the outset, the development of the AW149 has been shared between Leonardo helicopter facilities in Yeovil and Milan. During its development phase, over 800,000 hours of engineering activities were clocked up in Somerset, which equates to an equivalent of 50 human years of engineering activity.

The majority of the structural, main rotor and tail transmission design was undertaken in the UK, and because of that engineering investment, the design of the fuselage and the build of the blades and transmission is still onsite at the Home of British Helicopters today.

The skills that Leonardo has in Yeovil supports the UK MOD's necessity to have Freedom of Action and the operational advantage. The company has a proven ability to support Urgent Operational Requirements (UORs) that enable the UK MOD to procure additional capability quickly when moving into active theatre. For example, during Operations Telic and Herrick, Leonardo was involved in more than 50 UORs. These were across defensive aids suites, weapons installations, performance, installing uprated engines and communications, and were not exclusive to the Leonardo designed platforms. The UK MOD also came forward for support on other platforms, such as the Chinook and Puma.

The company has Design Approved Organisation Scheme (DAOS) accreditation from the UK Military Airworthiness Authority, which covers the complete system design including the assurance of airborne software. There is a significant team in Yeovil writing critical airborne software – it is important to note that the company is a software house as well as an airframe design authority.

The NMH opportunity allows Leonardo to sustain design skills within the UK and is not limited to Yeovil, since it extends to the UK-wide supply chain.

Leonardo analysis, verified by third parties, indicates that there's an addressable global market of over 500 aircraft. The company has committed that should the UK MOD acquire the AW149 as the NMH solution, it will build the resulting export products from the UK.

This case study box provided by Leonardo**FIRST MOVERS IN NEW DIGITAL AND DIGITALISATION TECHNOLOGY**

Research and Development (R&D) is playing a crucial role in the growth and success of Leonardo Helicopters UK. The company is proactively pushing the envelope, when it comes to innovation and advancing technological capabilities as a market leader in the South West.

Through rigorous engineering practices, experimentation and expertise, the R&D teams serving Leonardo UK's helicopters business are striving to develop cutting-edge technologies, enhance existing products, and pioneer breakthrough solutions.

The South West of England represents by far the largest cluster of aerospace and related sector industries, capabilities, facilities and skills in the UK and the second largest in Europe. Given the close connection to rotary-wing specialisms, yet with read-across into fixed-wing and now autonomous capabilities, the need to maintain a competitive edge in aerospace products and services is imperative.

The iAero innovation centre, next to the Leonardo airfield, provides the perfect ideas laboratory to grow innovative ecosystems in the aerospace sector in Somerset to complement developments at the company's helicopters site.

The facility is designed to support the competitiveness and growth of the local aerospace and advanced engineering and manufacturing sector. iAero is a strategic partnership between Somerset Council, the Heart of the South West Local Enterprise Partnership and Leonardo, with additional funding from the European Regional Development Fund.

The centre exists to support the economic development of aerospace and adjacent sectors. These form a high value employment sector in the region and therefore are of strategic importance. It is focused on the innovation aspects of design, development, test, certification and manufacture through the lens of five strategic pillars: Safety, Airworthiness and the Regulatory Environment; Future Products and Capabilities; Sustainable Aviation and Net Zero; Factory of the Future and Competitiveness; and Future Skills. The iAero Strategic Partners strongly believe that achieving a leading edge in such pillars will maintain Leonardo's aerospace heritage, drive the technological advantage and deliver sustainable growth to the region.

Live Trials

Leonardo has completed a number of live trials in the UK, which will underpin the development of an Air Launched Effects (ALE) capability which involves releasing and controlling drones in mid-air from host aircraft such as helicopters. Engineers from the Home of British Helicopters worked in partnership with Anduril Industries, to conduct the exercise at Predannack Airfield in Cornwall in December 2022.

The field of ALE is one of the newest applications of drone technology and has the potential to dramatically increase the survivability of military aircraft and its force effectiveness. By launching teams of sensor-equipped drones or other payloads that can then fly miles ahead of the aircraft, crews can stay out of harm's way and deliver effects with extreme precision.

The trial built upon the Leonardo demonstration in September 2020 that saw an uncrewed aircraft integrated into an AW159 helicopter's mission system, allowing the crew to control the drone from the cockpit as if it was one of the aircraft's on-board sensors.

In the December 2022 trials, as well as collaborating on the Crewed-Uncrewed Teaming (CUC-T) control software with Anduril Industries, Leonardo employed a number of ALTIUS-600 drones produced by Anduril's drone-specialist subsidiary AREA-I. ALTIUS drones are designed to be launched in a variety of methods, including from common launch tubes and are suited for installation on-board military helicopters such as those built in Yeovil, as well as other platforms such as ground vehicles, surface vessels and high altitude aircraft.

During the trials, the Leonardo and Anduril Industries team was able to evaluate and gather real-world performance data on a range of hardware and software components critical to future collaborative drone capabilities. The team developed and practiced the drone to aircraft coordination, flight manoeuvres, waypoints, loiter positions and overall Command and Control (C2) necessary for multiple aircraft to function together, autonomously. The exercises have boosted the company's knowledge in CUC-T and ALE data management, laying the groundwork for future, more complex trials.

Showcasing Promising Capabilities

In early 2024, a demonstration took place at iAero of a new optical communications technology for airborne platforms.

In a ground-breaking collaboration, AVoptics and Leonardo UK showcased the promising capabilities of free space optical communications. This innovative method utilises modulated light beams to facilitate secure data exchanges in scenarios where traditional radio communications are impractical or vulnerable. Notably, free space optical communications stand out for their potential in delivering high-speed, supremely secure, and nearly undetectable transmissions.

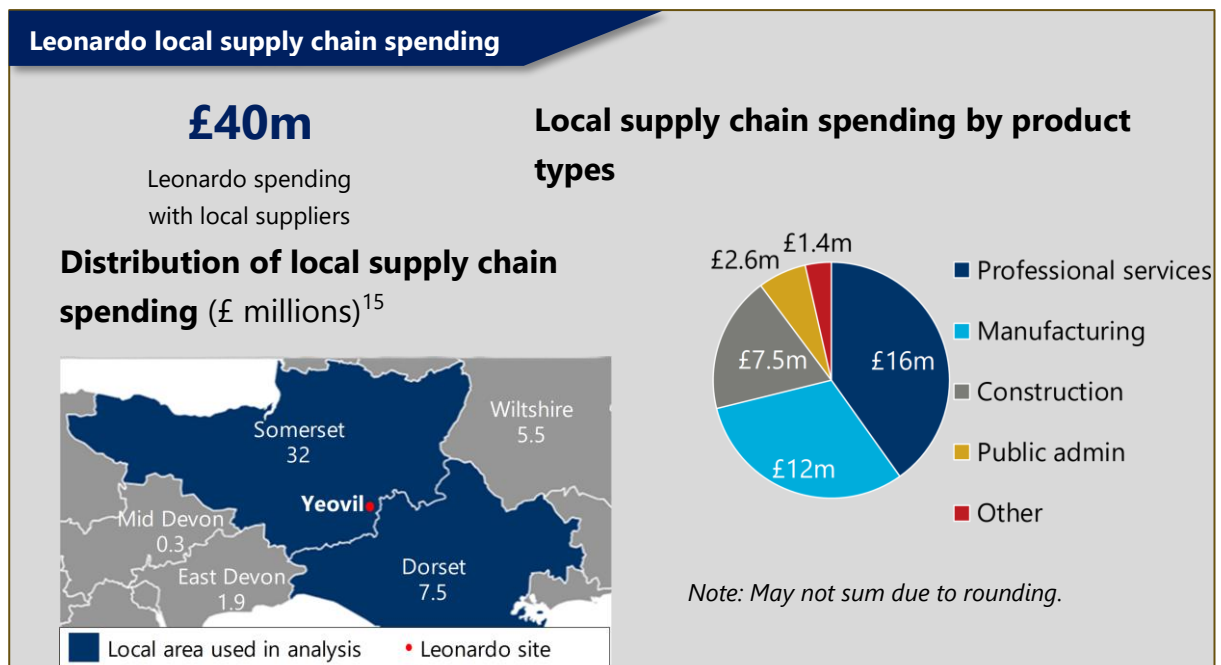
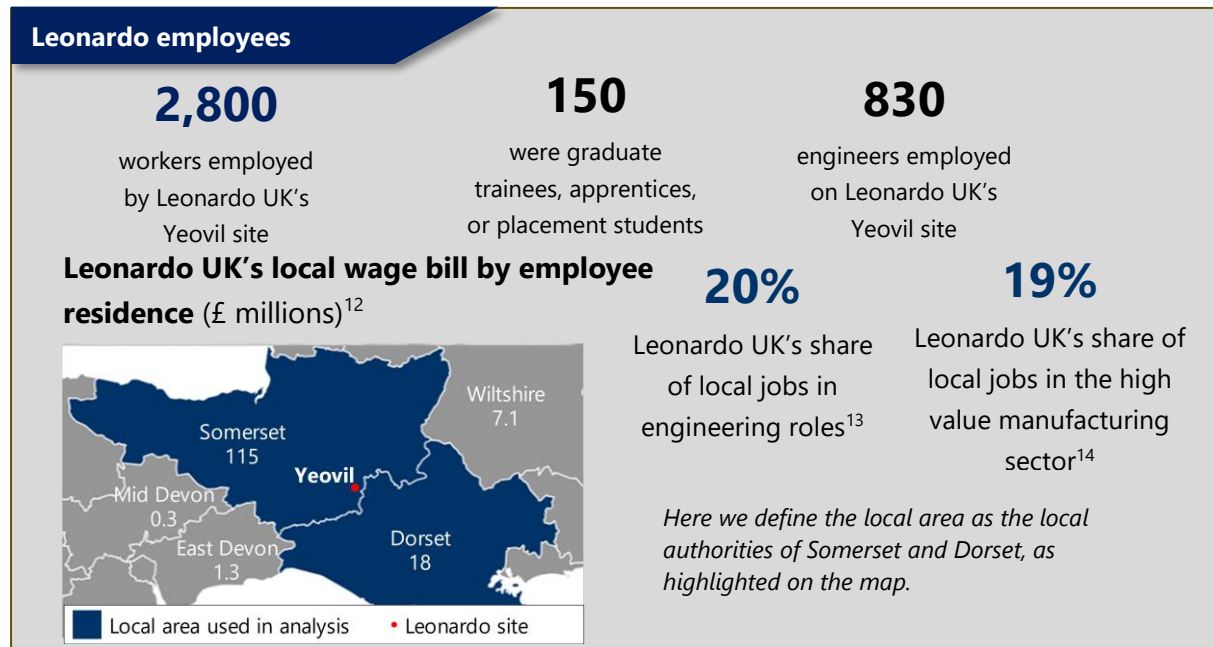
AVoptics Ltd, a UK-based enterprise, is at the forefront of this technology's development. The company is renowned for its excellence in engineering photonics solutions tailored for demanding conditions, ensuring both durability and portability for its clientele.

Leonardo has collaborated with AVoptics to explore this new technology for use in uncrewed aircraft which demand low size weight and power to succeed. Under contract from Leonardo UK, the two companies have developed new operational scenarios for ALE platforms, identifying how secure communications could transform military capability against a capable adversary.

Through the investment in R&D, Leonardo in Yeovil is paving the way for ground-breaking advancements in ALE, uncrewed technologies, and the platforms of tomorrow in the heart of the South West.

3. LEONARDO IN YEOVIL

Leonardo UK's operations in Yeovil specialise in the design, development, production, and support of helicopters.



¹² Includes all Leonardo employees living in these areas, not exclusively those working at the Yeovil site

¹³ Leonardo engineer roles compared to those in local area classified as Engineering Professional by the Office for National Statistics in the Annual Population Survey.

¹⁴ High value manufacturing includes the manufacturing of: computers, electronic and optical products; electrical equipment; machinery and equipment; motor vehicles, trailers and semi-trailers; and other transport equipment.

²⁰ Includes procurement spending from all of Leonardo UK's sites

Total economic impact on the local area

Local GDP

Local jobs

Direct



£240m



2,820

Indirect - supported by
supply chain spending



£20m



410

Induced - supported
by employee spending



£60m



1,080

Total impact

£320 million

4,300 jobs

Impact on the local area's wages

Note: May not sum due to rounding.



£133m

wages paid to employees living
in the local area



£182m

Total wages supported locally
including the above plus the
indirect and induced impacts

£51,000



Average wages at
Yeovil site

£32,000



Average local wages

Productivity boost

Contribution to local industry

£81,000



Leonardo Yeovil site

37%
higher
than

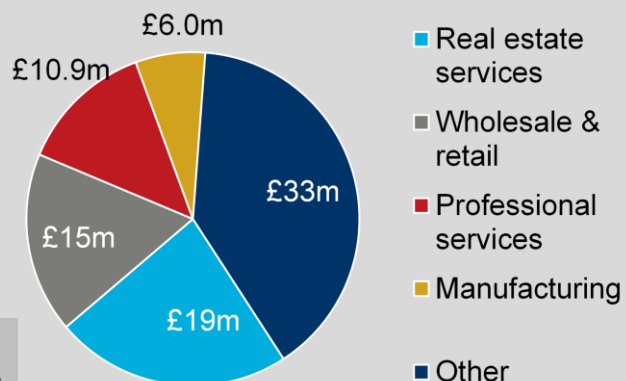
£59,000



Local economy

Productivity is an estimate of the economic output per worker, calculated by dividing GDP by employment.

Sum of local indirect and induced GDP impact by industry:



Note: May not sum due to rounding.

This section provided by Leonardo

Leonardo UK's Wider Impact on the Local Community

Leonardo is embedded within its local communities and works to provide diverse STEM, charitable, environmental and social contributions that enhance its long-term resilience, prosperity and wellbeing.

STEM

Leonardo in Yeovil offers a regular calendar of educational events that offer opportunities for local schools to collaborate with STEM ambassadors to gain confidence and understanding of aerospace engineering.

Cool Aeronautics is the Royal Aeronautical Society's (RAeS) primary school outreach programme that introduces children to the fascinating world of flying, aerospace engineering and space, in pursuit of its aim to 'promote aerospace and aviation to a new generation'. Since 2016, Leonardo UK's Team of STEM Ambassadors based in Yeovil have been hosting the event giving schools the choice to attend in person or virtually, thereby removing barriers to inclusion.

Students participate in a number of STEM challenges, where they have to build a solution using creative materials with close mentoring from Leonardo STEM Ambassadors. The students have the opportunity to participate in a panel discussion comprising representatives from Leonardo Helicopters UK's senior management team and Yeovil's branch of RAeS.

Leonardo is a proud sponsor and supporter of the annual Flying Start Challenge, an engineering competition that seeks to help students develop key skills and increase awareness of the excellent careers available in engineering. The initiative operates across the South West and is delivered in association with RAeS.

Teams of students are challenged to design, build and test a model glider that they will present at the regional Fly-Off. Each team then has the chance to fly their glider against schools from the same region, with teams judged on the distance flown and on a poster presentation detailing the design decisions made.

Teams register in Quarter 4 of each year, with mentors from the aerospace industry including Leonardo, advising on designs. Regional Fly-Off events take place in March, followed by the Grand Final in May, when the regional winners compete against each other in a series of engineering challenges.

Leonardo in Yeovil has collaborated with the local Holy Trinity Scouts group to create a new STEM badge that the Scouts can work towards, with mentoring and support from Leonardo STEM Ambassadors. The Scouts are required to visit the site to build their knowledge and understanding of the aerospace industry, as well as its history in the region.

The Scouts are provided with some background reading, with web links to Leonardo web pages and YouTube content. in order to learn about the history of aviation and aerospace developments to date, with an eye to the future. They also receive material supporting the Scout's learning of the principles of

flight, looking at a combination of fixed wing and rotary-wing air vehicles. Leonardo UK's STEM team give the Scouts insights into the Science, Engineering and Technology that makes the familiar sight of a helicopter flying over Yeovil a live demonstration of engineering in action.

Employees working at the company are also passionate about contributing to the provision of diverse learning experiences for the local community.

For example, Trainees from The Hub, one of the South West's most dynamic organisations for people living with learning disabilities and autism, were awarded completion certificates this year after finishing an immersive work experience activity created for them by Leonardo STEM Ambassadors.

Leonardo graduates and apprentices crafted the tailored two-day programme for the six Hub trainees, so that the trainees could gain as much direct access as possible to the manufacturing and technical capability based at the Home of British Helicopters.

Charitable Fundraising

While employees working at the Leonardo site in Yeovil have volunteered for local causes and organisations for many decades, 2024 saw the launch of company's first official day of volunteering at the Yeovil site that graduates named 'Be A Saint Day'.

A group of graduates working at the company came up with the idea, when they saw the potential to focus efforts according to specific local needs, in response to the 2024 Association of Project Management challenge.

The Leonardo team of 55 volunteers got to work on an extensive range of tasks on 18 March, after spending weeks engaging with local organisations to fine-tune their understanding of each organisation's specific requirements.

Beneficiaries included The Hub, a Yeovil-based charity offering day services for adults with learning disabilities and autism. The team carried out extensive gardening at their facility, planting new flowers and painting the wood surrounding their raised flowerbeds. They also smoothed the fire escape path, to make it easier for the Hub's trainees to walk on when exiting the building in an emergency.

Leonardo volunteers painted a hallway at Cookson's Court Care Home and carried out extensive work at Prodigal Bikes, a charity that refurbishes donated bikes and ships them to Africa, where they offer training to children and teachers in their use and maintenance. This included installing new storage and carrying out a general clean and tidy up of the workspace, so that mended bikes can be made ready for shipment to Africa more easily. The team also attended Yeovil Cricket Club, where they painted fences, benches and a large container to spruce up the surroundings, as well as completing a clear up and installing a new score board.

Maiden Beech Primary School received a visit from the volunteers who spent the day painting their school hall used for class assemblies and events.

In October 2023, Leonardo trainees handed over a cheque for £22,221.58 to their chosen Glastonbury-based charity PROMISEworks. PROMISEworks

offers support and mentoring services to disadvantaged children and young people aged five to 25 years across the Somerset region. Over the previous year the Leonardo Trainees' Fundraising Committee took part in various events including the Yeovil Half Marathon, festivals and regular bucket collections to make it possible for more young people in the region to be matched with a mentor.

Mentors meet and spend time with the young people, helping them to access their communities, take part in activities and participate in experiences, or simply share some quality time together.

This provides them with a reliable and consistent adult in their life who can offer them guidance and support while helping them to try new hobbies or interests to create positive memories. Each mentor commits to a minimum of two years with a young person.

Environmental responsibility

Leonardo has collaborated with food donation company Olio to donate excess food from its sites in Yeovil, Basildon, Edinburgh, Luton and Southampton.

Since the start of the partnership in March 2023, Leonardo in Yeovil has rescued 400 meals, which have gone on to feed 51 families. This has saved 725kgs of Co2 from entering the atmosphere, preventing 125,000 litres of water from going to waste. This is equivalent to planting 33 trees and taking 2,464 car miles off the road.

Olio is a mobile app where neighbours and local shops and cafes can share surplus food, so that local communities can benefit. Food-safety trained volunteers collect and check the food at the end of each day, then add it to the app so that people living nearby can request it and pick it up.

The scheme emerged when Tessa Clarke, Co-Founder and CEO of Olio, realised she had perfectly edible food her family hadn't managed to eat when she was moving home. It was from this moment that the idea for Olio was born.

Tessa said: "One-third of all the food produced each year gets thrown away, meanwhile 800 million people go to bed hungry each night, and the impact of food waste is environmentally devastating. If it were to be a country, it would be the third largest source of greenhouse gas emissions after the USA and China."

In January 2024, Conrad Energy confirmed that planning for their 15.23MW Yeovil solar farm, in conjunction with Leonardo, was approved.

Once fully operational, the site will generate enough energy to power the equivalent of up to 6,500 homes. Although there is a carbon footprint associated with solar panels, the lifecycle emissions of solar electricity are around 12 times less than natural gas and 20 times lower than coal. The 40-year lifespan of the solar farm represents a saving of around 80,000 tonnes of carbon dioxide.

Steven Hardman, Conrad Energy's CEO said, "The Leonardo site in Yeovil is an incredibly important business and Conrad Energy's team is offering a

solution to help them move towards their net zero targets, whilst also working to fulfil the aims of the local council. Long term partnerships that ensure community engagement and a positive biodiversity impact are integral to the way we work, as the energy transition requires support from all of us. Conrad Energy is thrilled to have secured planning consent and look forward to bringing this solar farm to life for the benefit of the local economy and environment.”

Paul Coombs, VP Leonardo Global Solutions UK Facilities, Real Estate and Projects – Helicopters said: “We will continue to support Somerset Council’s Climate Strategy to become a carbon neutral county by 2030, by exploring new routes through which we can obtain responsible renewable energy sources. Leonardo is committed to achieving a near-term Net Zero target for Scope 1 and 2 emissions by 2030 to reduce its environmental impact and the use of solar energy from this facility will help us move forward on this important journey.”

Somerset was the first county council in the UK to pass a motion declaring the climate emergency and was ranked the best county council in the UK by Climate Emergency UK in 2022. Part of that ranking was a perfect score in the Mitigation & Adaptation category, including plans for decarbonisation of energy generation. Conrad Energy is excited to be part of Somerset’s decarbonisation journey.

Being part of the community

Yeovil resident Keith Griffiths, who celebrated his 95th birthday in February 2024, led Leonardo apprentices on a fascinating walk through time recently, bringing the history of the site alive with his experiences.

Responding to a letter from his granddaughter, Charlotte Gardiner, Business, Training and Partnerships Coordinator at Yeovil College, Keith was invited to the site for a tour of the aircraft hangar and facilities and a discussion with current apprentices, joined by his daughter Helen and granddaughter Charlotte. Charlotte was originally inspired to write the letter, to fulfil her grandfather’s long held wish to revisit the site.

Keith began his career in 1945 as a 17 year old apprentice at the Yeovil site and over the course of his tour, Keith was struck by the sheer scale of the facilities which dwarfed the original buildings he worked in. Keith also remembered that in the 40s the company still produced fixed wing planes that had been built at the Yeovil site since the early 1900s, including Lysanders.

Retracing his workplaces across the decades, Keith was shown round some of the modern aircraft that are now on the flight line and chatted to some of the engineers working on them.

Matt Grindon, Test Pilot, Flight Operations Leonardo UK, who explained the intricacies of the new helicopters to Keith said: “It was a great honour to host Keith around the hangar and enjoy his stories from the early beginnings of helicopter production at the Yeovil site. His experiences brought us all closer to living history – fascinating!”

In August 2023, Leonardo shared the story of the fifth generation of a family that first moved to Yeovil in the 1920s who have contributed a century of manufacturing expertise at the company.

On 10 August 1923, George Bowsher first walked through the gates at Lysander Road to commence his apprentice training. A century later, his great-great grandson Daniel Bowsher, walks through the same gates every day for his Electrical Engineering Degree Apprenticeship, where he is working in the Avionics Systems Electro Magnetic Compatibility department, which ensures that helicopters can operate satisfactorily in an Electro Magnetic Interference environment.

Leonardo in Yeovil was recognised as the official 'Home of British Helicopters' recently, due to the fact that it is the UK's only end-to-end rotary wing capability.

It has also been a home to one family, whose engineering expertise has supported aircraft production across a century, from the wooden biplanes of the 1920s to today's AW101 helicopters that are used for search and rescue operations to save lives at sea. In addition to their star appearances in Hollywood blockbusters like the Bond Film Skyfall and Jurassic World Dominion.

4. THE ECONOMIC IMPACT OF LEONARDO UK'S ELECTRONICS BUSINESS

£1.4 billion

The contribution to UK GDP
in 2023 of Leonardo UK's
electronics business



16,100 jobs

Total jobs supported in 2023
by Leonardo UK's
electronics business



£450 million

Total R&D activity in 2023
performed by Leonardo UK's
electronics business



4.1 EXECUTIVE SUMMARY

Leonardo UK's electronics business operates across diverse technologies, developing and producing products such as airborne radar systems, infra-red detectors and cameras, aircraft defence systems, and high-power lasers. Along with Leonardo UK's helicopters business, these products mean the company is one of the largest suppliers to the Ministry of Defence.

This chapter examines the ways that the electronics business delivers economic benefits to the UK.

CORE ECONOMIC IMPACTS

We estimate **Leonardo UK's electronics business's total contribution to UK GDP was almost £1.4 billion in 2023**. This consisted of £520 million contributed directly through the business's operations, £390 million as a result of procurement spending, and £440 million from employees of Leonardo and its supply chain spending their wages in the consumer economy.

We estimate **this economic activity supported a total of 16,100 jobs** around the UK in 2023. This is made up of 4,600 jobs directly with the business, 5,900 jobs as a result of supply chain spending, and 5,600 jobs supported by Leonardo and supply chain workers' wage spending.

Workers at Leonardo UK's electronics business have a high level of productivity compared to the UK economy as whole. On average, Leonardo UK's workers contributed £114,000 a year to GDP in 2023, compared to a UK average of £63,000 that year.

The business made £410 million of export sales in 2023 alone, and £2 billion of exports in the five preceding years, in nominal terms.

CATALYTIC IMPACTS: LEONARDO UK'S CONTRIBUTION TO THE UK'S LONG-TERM PROSPERITY

Leonardo UK's electronics business performed nearly £450 million worth of R&D activity in 2023, and nearly £1.2 billion in nominal terms over the five preceding years. This includes self-funded research as well as that carried out in support of customer contracts.

The business is helping to boost the skills of the UK workforce, with 250 graduate trainees, 230 apprentices and 60 industrial placement students in 2023.

4.2 INTRODUCTION

Leonardo UK's electronics business develops a wide range of technologies with civil and defence applications, for both UK and overseas customers. The business's UK roots date back more than a century, growing out of companies including Ferranti and Marconi's Wireless Telegraph Company, which were both founded in the late 1800s.

The electronics business now operates at five main sites across the UK, in Basildon, Edinburgh, Lincoln, Luton, and Southampton. Each specialises in different technologies, including radars, lasers, electronic warfare systems, and thermal cameras.

This chapter sets out the overall impact of Leonardo UK's electronics business on the country's economy. We also explore the contribution to the UK's long-term prosperity made by Leonardo UK's electronic exports, and also by capital and R&D investments in its UK electronics business.

4.3 EMPLOYMENT CONTRIBUTION

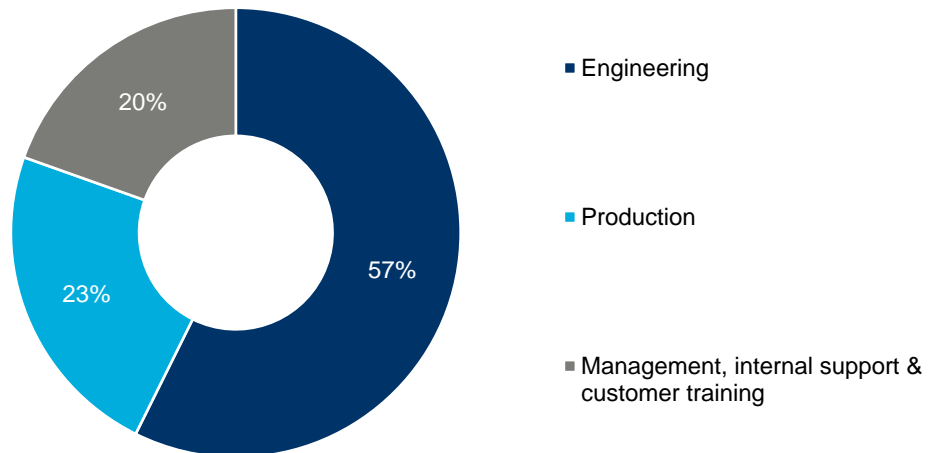
4.3.1 Direct employment

In 2023, approximately 4,600 people worked directly for Leonardo UK's electronics business. The largest of the five UK electronics facilities is in Edinburgh, with approximately 2,500 workers in 2023—followed by Luton with approximately 1,200 workers, Basildon (680), and Southampton (440). Some 110 workers are based at a small satellite location in Lincoln.

More than half of the electronics business's employees worked in engineering roles such as design and R&D (see Fig. 27). A further 23% were production workers. The remaining staff were largely split across support roles including management, procurement, and professional roles such as legal, accounting and commercial.

Fig. 27. Breakdown of Leonardo UK's electronics employment by role, 2023

Share of total



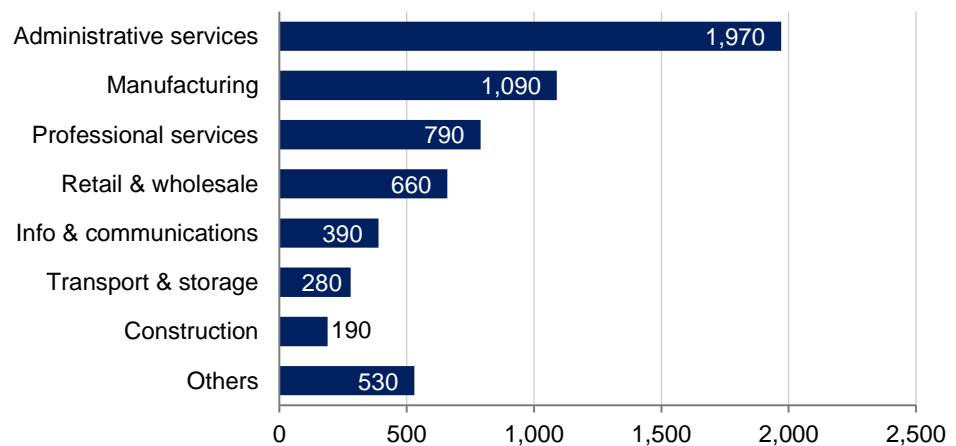
Source: Leonardo

4.3.2 Supply chain contribution to employment

In 2023, Leonardo UK's electronic business spent £460 million with its domestic suppliers. This spending and the activity it stimulated up the supply chain supported an estimated 5,900 jobs. The largest impact was in the administrative services sector, which includes various business support activities such as employment services, office administration and facilities management.

Fig. 28. Leonardo UK's electronics business indirect impact by sector, 2023

Workers



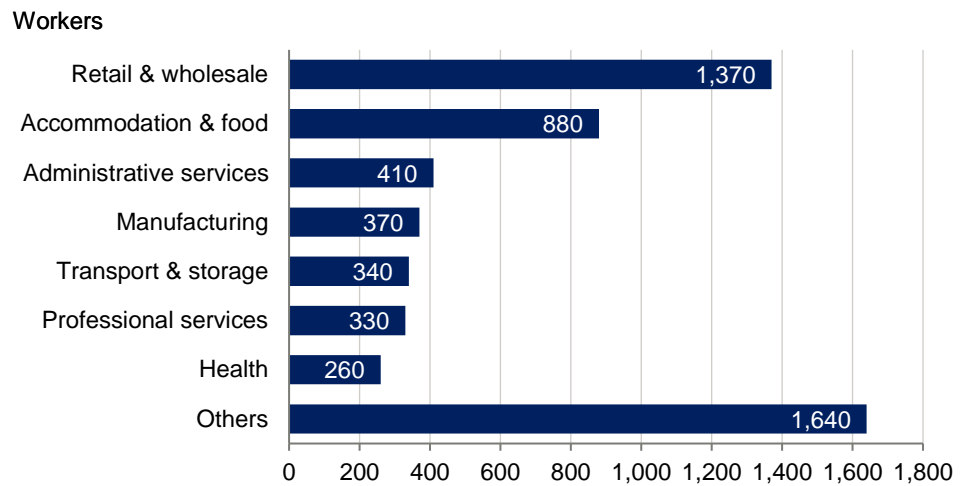
Source: Oxford Economics

4.3.3 Employment supported by worker spending

Leonardo UK's electronics business paid a total of £270 million in wages and salaries to its employees in 2023. We estimate that this supported 5,600 jobs

through the impact of the workers at Leonardo UK's electronics business and in its supply chain spending their wages. The retail and wholesale and the accommodation and food services sectors were the two largest contributors to that number, with 27% and 13% respectively of the total.

Fig. 29. Leonardo UK's electronics business induced employment impact by sector, 2023



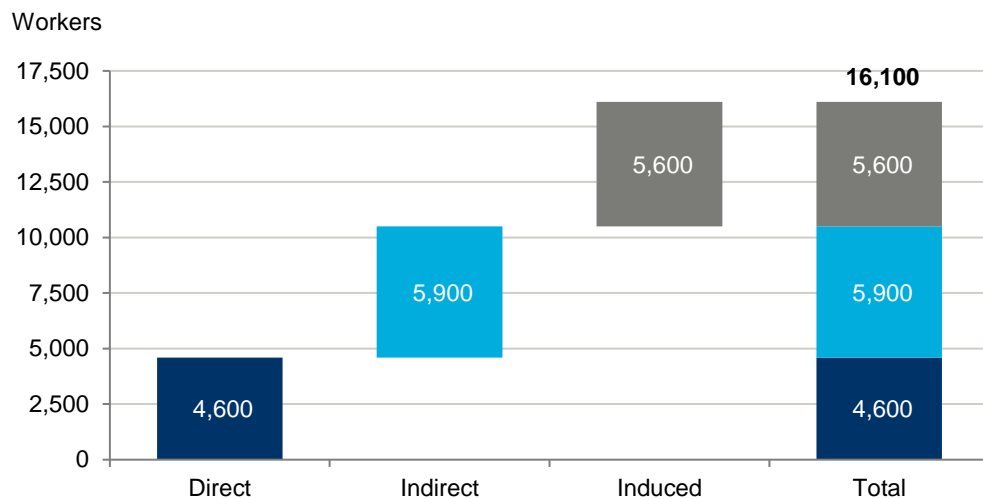
Source: Oxford Economics

4.3.4 Total employment contribution

In 2023, Leonardo UK's electronics business supported an estimated 16,100 jobs in the country across the direct, indirect, and induced channels of impact.

Alongside the 4,600 jobs supported directly at Leonardo UK's electronics business, this means that the company supported a total of 350 jobs around the economy for every 100 at Leonardo itself.

Fig. 30. Leonardo UK's electronics business total employment impact, 2023



Source: Oxford Economics

This case study box provided by Leonardo**AN INTERNATIONAL EXPERT IN HIGH-PERFORMANCE INFRA-RED TECHNOLOGIES**

Building on its tradition of developing leading-edge surveillance systems dating back more than 60 years, Leonardo's Southampton site is one of only a handful of facilities worldwide with the ability to develop and manufacture high-performance cooled infra-red (IR) detectors and advanced thermal imaging systems.

This cryogenically-cooled imaging equipment detects heat from any object that is warmer than absolute zero (-273°C), and can pick up temperature differences as small as one 50th of a degree centigrade, allowing for extremely sharp images.

The technology is used in many applications, such as on the RAF's Orcus counter-drone system, which is protecting UK civilians and Armed Forces from the threat posed by rogue drones. In the event of a drone-based crisis, the RAF can rapidly deploy Orcus anywhere in the country for the provision of Military Aid to Civil Authorities. The infrared detectors embedded in the system support the highly accurate detection, tracking and identification of potential drone threats.

Leonardo infra-red technology is also being launched into space to help meet global sustainability goals. A NASA satellite, launched in February from Cape Canaveral, is fitted with a sensor built at Leonardo in Southampton that will give NASA unprecedented levels of information about phytoplankton populations that are vital to the health of the global ocean ecosystem.

In recent years, Leonardo has also supplied detectors for the NASA OSIRIS-REx asteroid return programme from the Bennu asteroid and the NASA LUCY mission to explore the Jupiter Trojan asteroids.

The company's technology has also enabled wildlife cameras to capture footage of previously unseen nocturnal animal behaviour, while more novel applications include cricket umpires using the company's detectors to assess whether the ball has struck batter or bat.

A significant share of Leonardo UK's infra-red technology products are sold overseas, either as detectors or in more complex systems, adding to the UK's overall exports. To ensure that Leonardo and the UK remain at the forefront of this high-tech field, the company's detector business invests a percentage of its revenues directly back into R&D—while also attracting research funding from customers seeking customised detectors.

4.4 GDP CONTRIBUTION

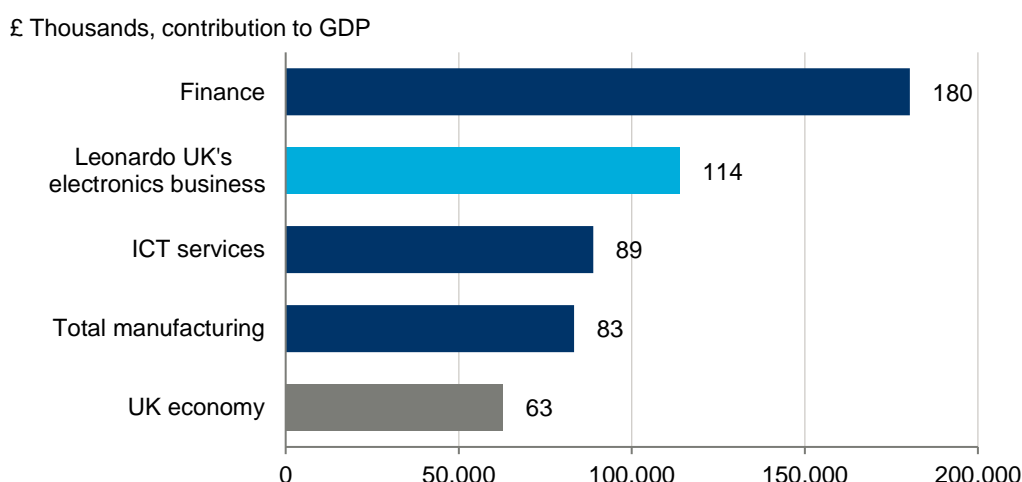
4.4.1 Direct contribution to GDP

Leonardo UK's electronics business received just over £1.3 billion of sales revenue in 2023, with £890 million coming from UK customers and £320 million from overseas firms. The business also sold £27 million of products and services to other UK-based Leonardo entities, and £90 million to overseas Leonardo entities.

From this revenue, we estimate the business supported more than £520 million in contributions to GDP. This comprised £330 million in worker compensation, £190 million in profits, and £4 million in taxes on production.

Workers at Leonardo UK's electronics business contributed an average of £114,000 to GDP. This means they were significantly more productive than the average for the UK, which was £63,000 per worker in 2023.

Fig. 31. Average GVA per worker levels for selected UK industries, 2023



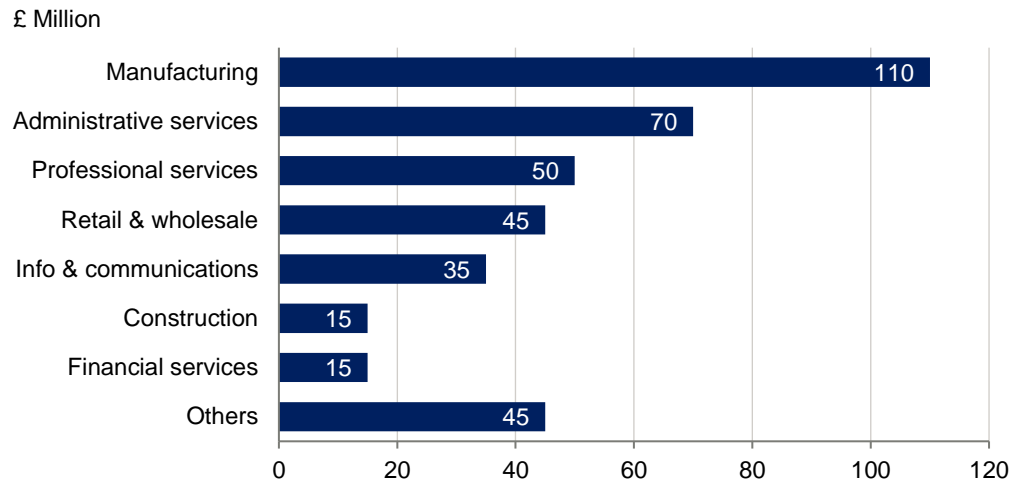
Source: Oxford Economics, Office for National Statistics, Leonardo

4.4.2 Supply chain contribution to GDP

An estimated further £390 million of GDP was supported along the supply chain of Leonardo UK's electronics business. The manufacturing sector had the largest impact, at 28% of the total, due to the significant spending in the sector in areas such as electronics components. A further 17% of the impact was found in the administrative services industry, representing various business support activities.

Analysis by Leonardo indicates that the electronics business spent £34 million in the 20% most deprived areas of the UK, of which half was with SMEs.

Fig. 32. Leonardo UK's electronics business indirect GDP impact by sector, 2023

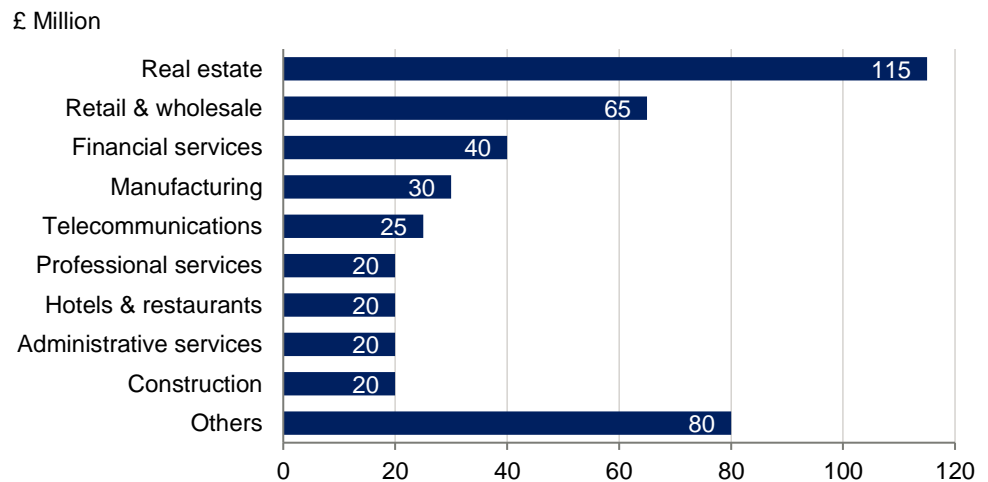


Source: Oxford Economics

4.4.3 GDP supported by worker spending

The third channel through which Leonardo UK's activities supported GDP was the wage spending of workers employed directly and indirectly by the company. By using their salaries to purchase various goods and services throughout the economy, these workers supported a further £440 million in GDP. The real estate, and retail and wholesale sectors were the two industries supporting the largest impact, reflecting workers' rent and mortgage payments, and shopping activity.

Fig. 33. Leonardo UK's electronics business induced GDP impact by sector, 2023



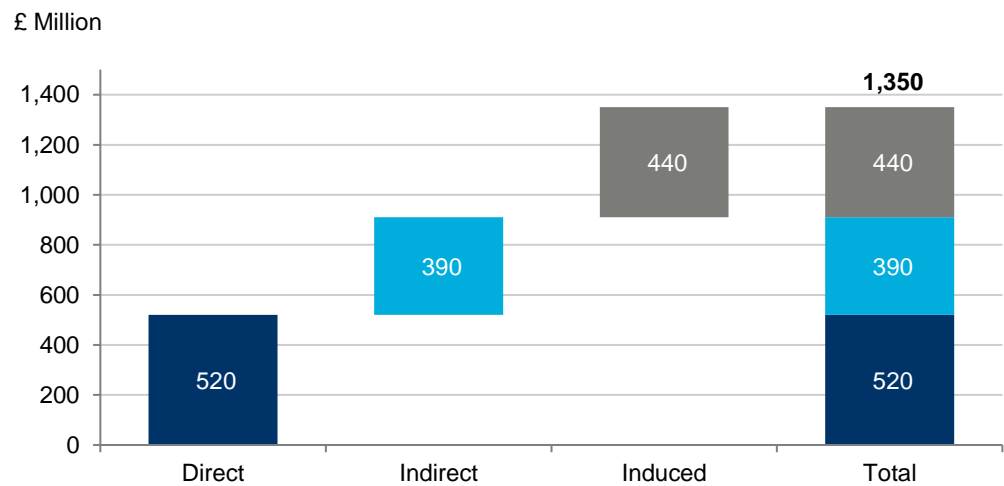
Source: Oxford Economics

4.4.4 Total economic contribution

We estimate Leonardo UK's electronics business unit's total GDP impact across the direct, indirect and induced channels was almost £1.4 billion in 2023.

This means that for every £100 of GDP supported by the business's own operations, a total of £260 of economic activity was supported across the economy as a whole.

Fig. 34. Leonardo's UK-based electronics business total GDP impact, 2023



Source: Oxford Economics

This case study box provided by Leonardo**WORLD-CLASS SURVEILLANCE RADAR TECHNOLOGIES DRIVING LEONARDO EXPORTS**

Leonardo UK's electronics business is an established contributor to UK exports through its cutting-edge airborne radar technologies. In 2005, the company became the first exporter of active electronically-scanning array (AESA) radar to the US after securing a deal with the US Coast Guard for its Seaspray 7500E —replacing older, purely mechanically-steered systems.

Building on that export success, Leonardo launched Osprey (its second generation E-scan radar) in 2014 with a contract to supply the Norwegian Ministry of Justice. This product delivers full “spherical” coverage with no moving parts, meaning the radar can jump from target to target in any direction in a fraction of a second.

Today, the market demand for military and government use of radar, for Intelligence, Surveillance & Reconnaissance (ISR) and Search & Rescue missions, is higher than ever and Leonardo counts more than 50 customers globally. Operators include the UK Maritime Coastguard Agency and the United States Navy. In a record year for the business, Leonardo received orders for more than 80 surveillance radars in 2023, chiming with the 80th anniversary of its Edinburgh-based site.

Leonardo UK's electronics business employs some 250 engineers and technicians to work on its surveillance radars. Growth continues and the company is currently midway through an expansion of its AESA radar production hall to facilitate future increases in production. This includes a recent £8M investment in a state-of-the-art automatic test facility for AESA technology.

The business provides “full lifecycle” design, manufacture, and support of complex radar systems, giving the UK complete sovereign onshore capability in this strategic technology area.

4.5 THE CATALYTIC CONTRIBUTION TO THE UK'S LONG-RUN PROSPERITY

In addition to the annual impacts on the UK economy quantified so far in this chapter, Leonardo UK's electronics business made a number of other important contributions which would be expected to contribute to the UK's long-term prosperity.

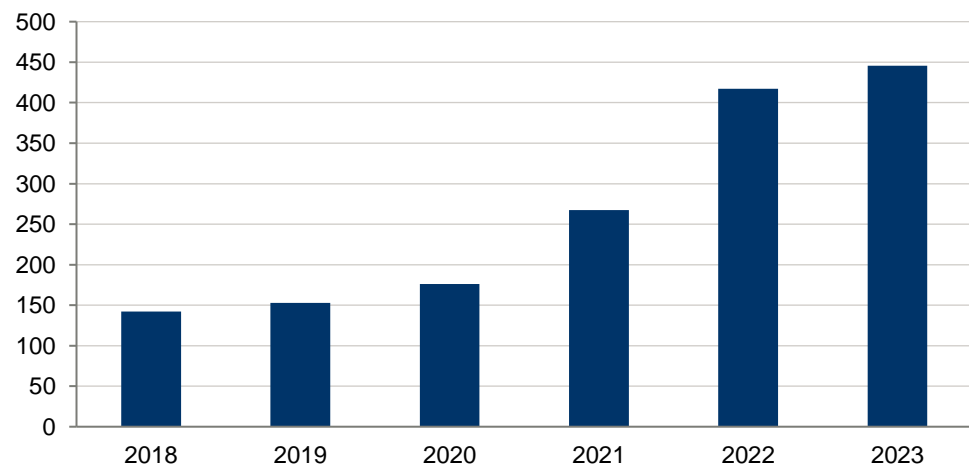
4.5.1 R&D and capital investment

Leonardo UK's electronics business carried out nearly £450 million of R&D activity in 2023. This annual amount has risen swiftly in recent years, standing at more than three times the amount in 2018 in nominal terms. Between 2018 and 2022, the business carried out £1.2 billion of R&D activity in nominal terms.

Investing in R&D is important not only for Leonardo to innovate products and processes, but also for the wider economy. Outcomes of R&D spill over into other sectors, allowing other firms to operate more productively. Over the long term, such productivity enhancements drive long-term economic growth.

Fig. 35. Leonardo UK's electronics business annual value of R&D activity

£ Millions, nominal terms



Source: Leonardo

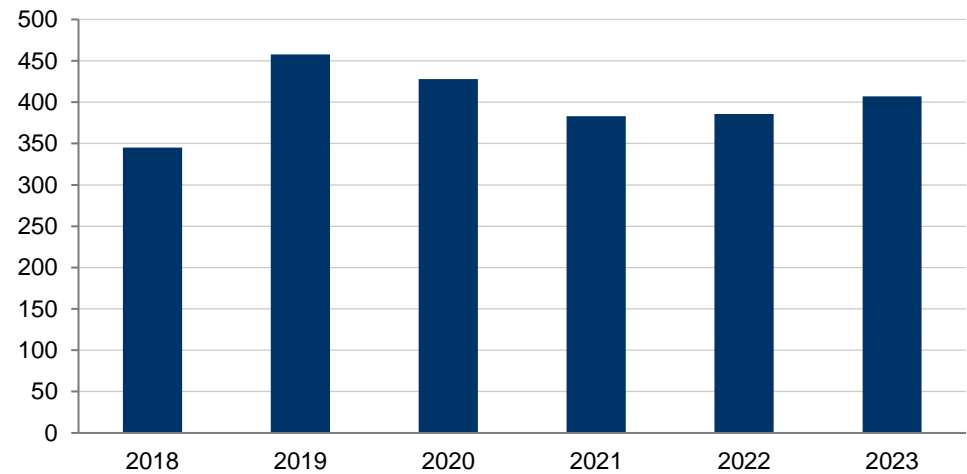
As well as R&D spending, Leonardo UK's electronics business made nearly £24 million of capital investment in the UK in 2023, including £12.5 million spent with SMEs.

4.5.2 Exports

Leonardo UK's electronics business sold nearly £410 million of goods and services to export customers in 2023, split between £90 million to overseas Leonardo entities and £320 million to external customers. In the period between 2018 and 2022, the business sold a total of £2.0 billion worth of exports in nominal terms.

Fig. 36. Total annual exports by Leonardo UK's electronics business

£ Millions, nominal

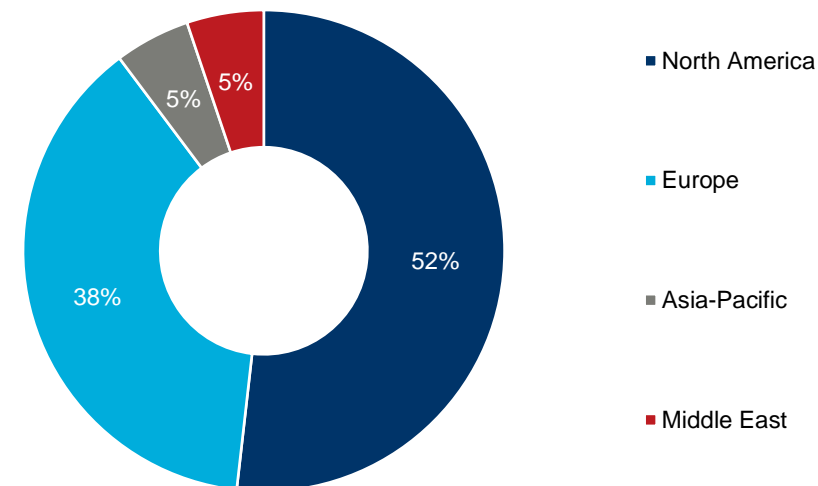


Source: Leonardo

North America was the single largest market for the business's exports to external customers, with 52% of sales in 2023. A further 38% of exports were sold to customers in Europe.

Fig. 37. Leonardo UK's electronics exports to external customers by destination market, 2023

Share of total



Source: Leonardo

This case study box provided by Leonardo**LEADING THE GLOBAL MILITARY LASER MARKET**

Leonardo UK's electronics business is a world leader in the high-energy military laser market, which includes products such as ground-based target designators and airborne electro-optical targeting systems.

Leonardo products, built at the company's Edinburgh facility, account for around 60% of global sales of military lasers for airborne use. All of the Leonardo laser products are designed and manufactured in the UK, once again giving the country sovereign on-shore capability in this area.

Across all programmes, the company has delivered close to 10,000 laser units since it started significant investment in their development in the 1970s. Many are exported to the US, generating tens of millions in revenue each year for the UK electronics business.

One specific recent export success has been the Type 163 Laser Target Designator, a device designed for precision targeting over ranges of several kilometres. More than 1,000 units of this handheld designator have been sold to 33 nations including Italy, US, Australia, and other NATO member and partner countries.

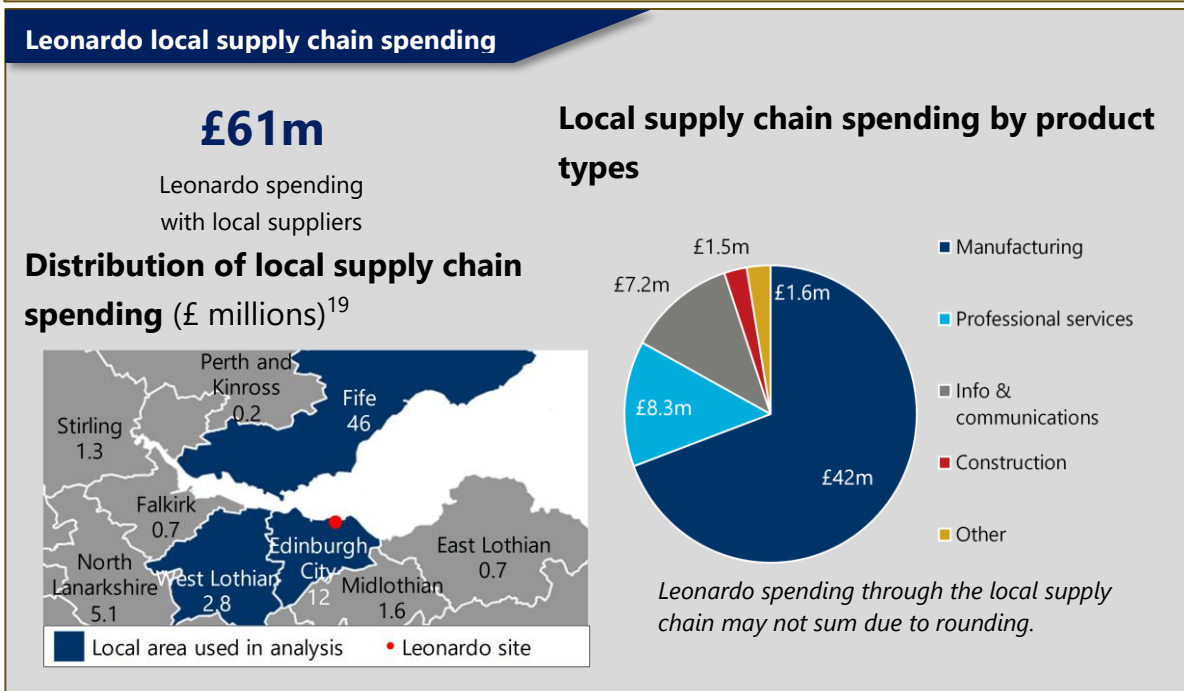
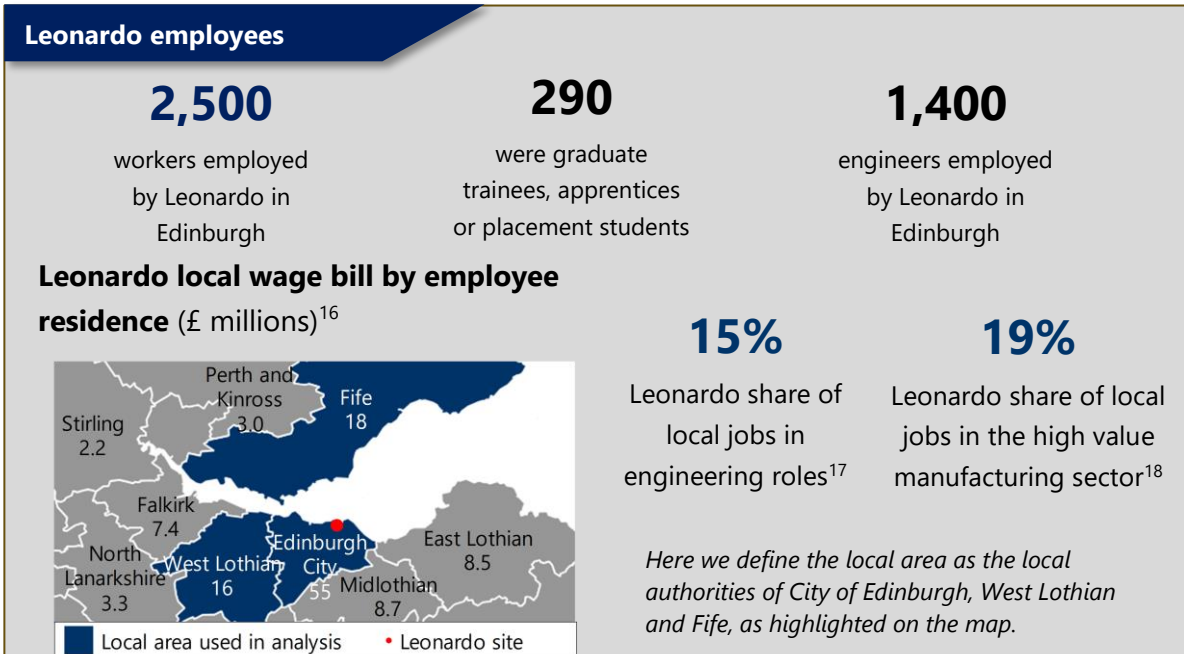
Notably, the US Army's CIRCUM (Common InfraRed CounterMeasure) and Leonardo's internationally exportable Miysis DIRCM (Directed InfraRed Countermeasure) systems, which protect aircrew and their aircraft from infrared-guided missiles, incorporate Leonardo UK's latest-generation compact pointer/tracker (beam director) technology.

This beam director expertise is also being applied to the UK DragonFire programme, the UK's first high-power defensive laser weapon. The cutting-edge DragonFire laser will be installed on Royal Navy warships for the first time from 2027 and will be able to fire at any target visible in the air at around £10 a shot, with an accuracy equivalent to hitting a pound coin from a kilometre away.

Leonardo's success in DragonFire and its acceleration into UK service is underpinned by a number of applied research programmes built on strong links with Scottish universities.

5. LEONARDO IN EDINBURGH

Leonardo operations in Edinburgh specialise in technologies such as radar and lasers.



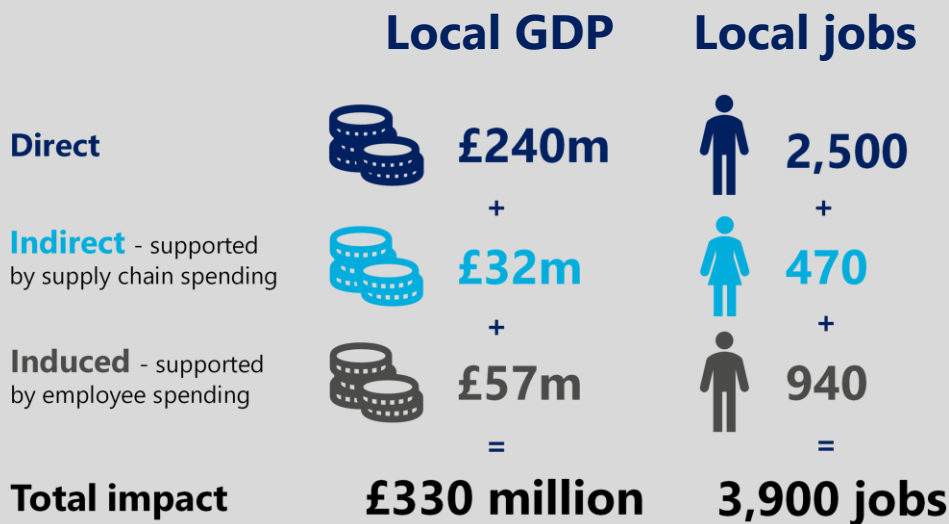
²¹ Includes all Leonardo employees living in these areas, not exclusively those working at the Edinburgh site

²² Leonardo engineer roles compared to those in local area classed as Engineering Professional in the Office for National Statistics Annual Population Survey.

²³ High value manufacturing includes the manufacturing of; computers, electronic and optical products; electrical equipment; machinery and equipment; motor vehicles, trailers and semi-trailers; and other transport equipment

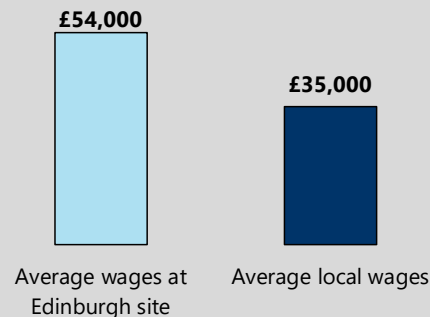
²⁴ Includes procurement spending from all of Leonardo UK's sites

Total economic impact on the local area



Impact on the local area's wages

Local GDP and employment figures may not sum due to rounding

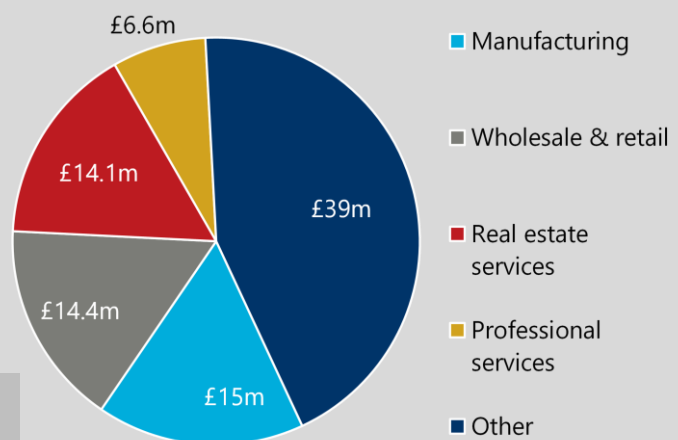


Productivity boost Contribution to local industry



Productivity is an estimate of the economic output per worker, calculated by dividing GDP by employment.

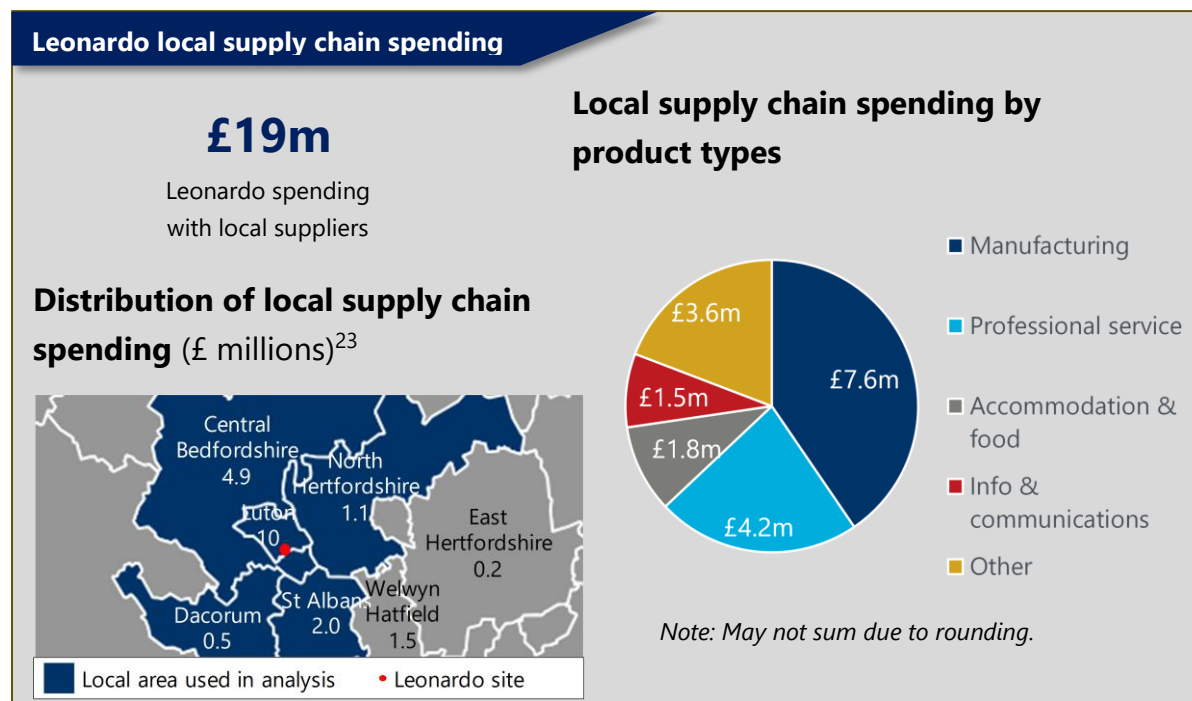
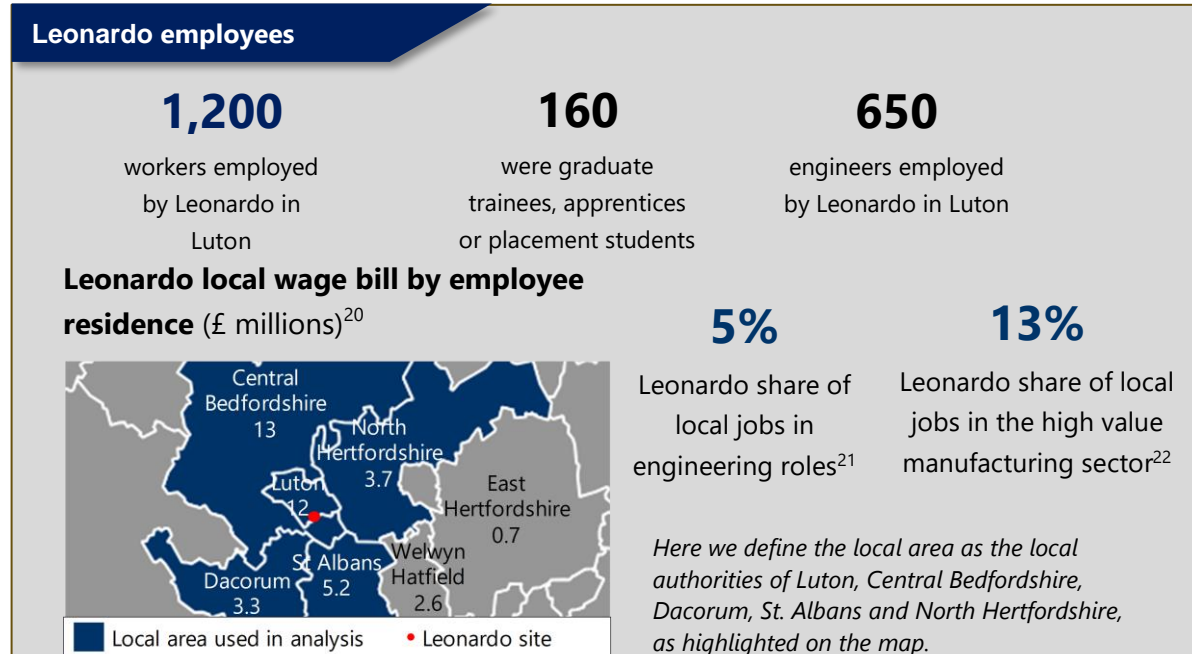
Sum of local indirect and induced GDP impact by industry:



May not sum due to rounding.

6. LEONARDO IN LUTON

Leonardo operations in Luton specialise in electronic warfare technologies.



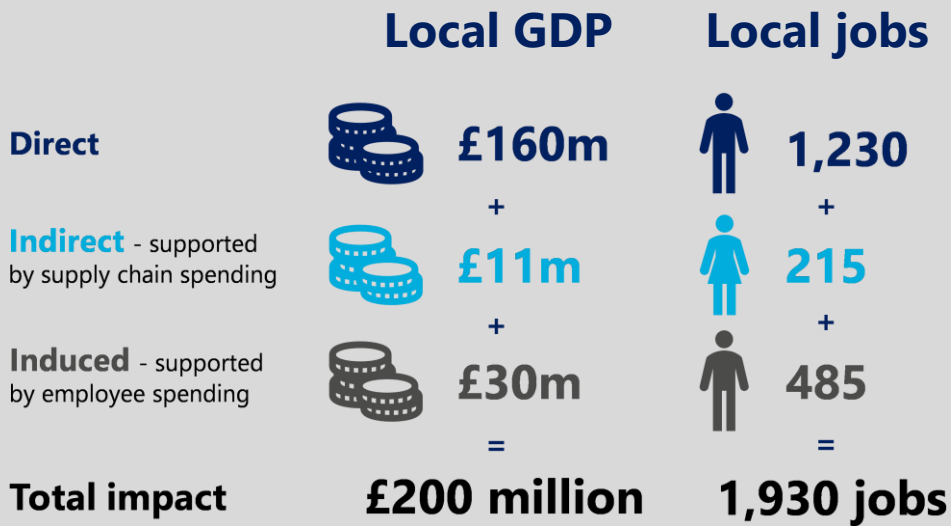
²⁵ Includes all Leonardo employees living in these areas, not exclusively those working at the Luton site.

²⁶ Leonardo engineer roles compared to those in local area classed as Engineering Professional in the Office for National Statistics Annual Population Survey.

²⁷ High value manufacturing includes the manufacturing of; computers, electronic and optical products; electrical equipment; machinery and equipment; motor vehicles, trailers and semi-trailers; and other transport equipment.

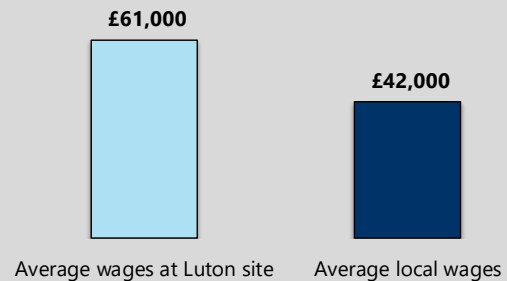
²⁸ Includes procurement spending from all of Leonardo UK's sites.

Total economic impact on the local area

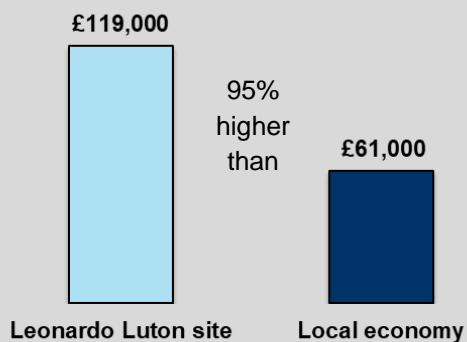


Impact on the local area's wages

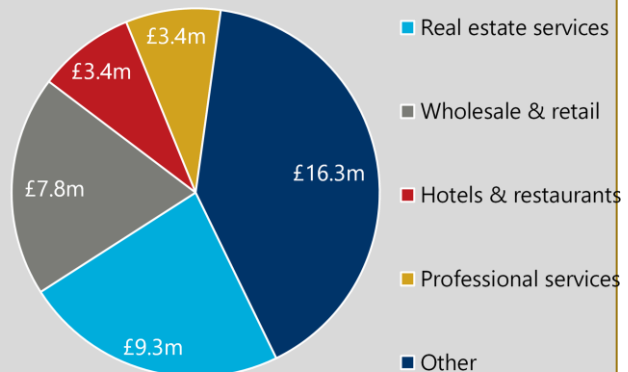
Note: May not sum due to rounding.



Productivity boost Contribution to local industry



Sum of local indirect and induced GDP impact by industry:

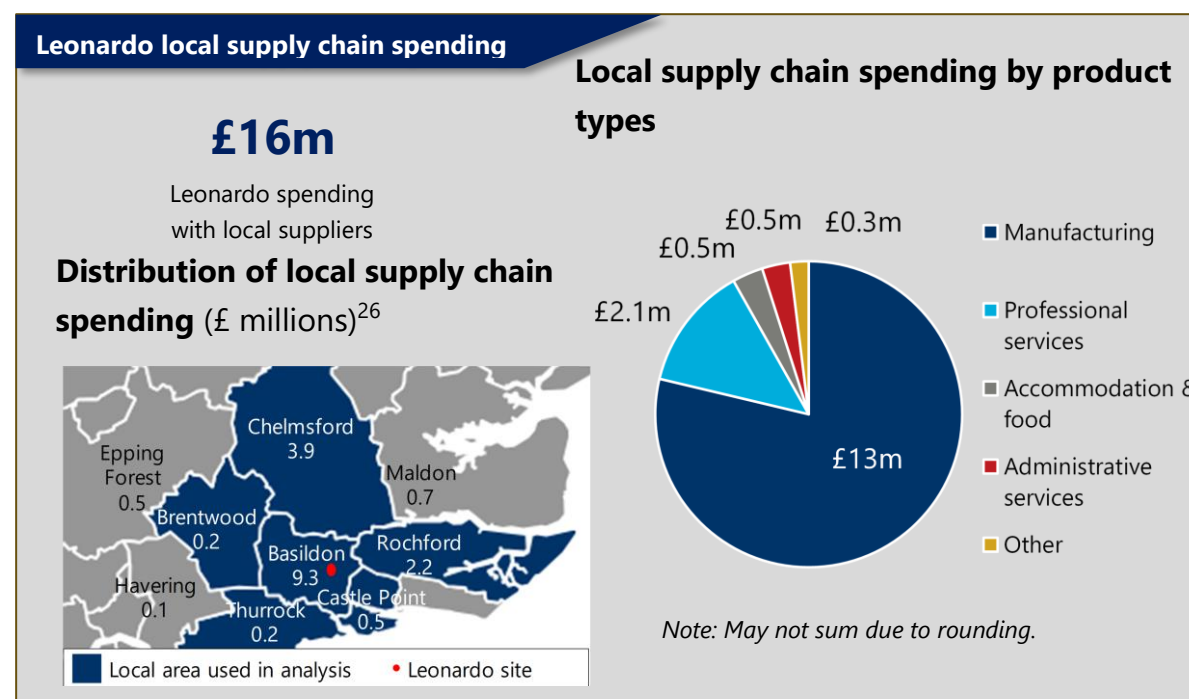
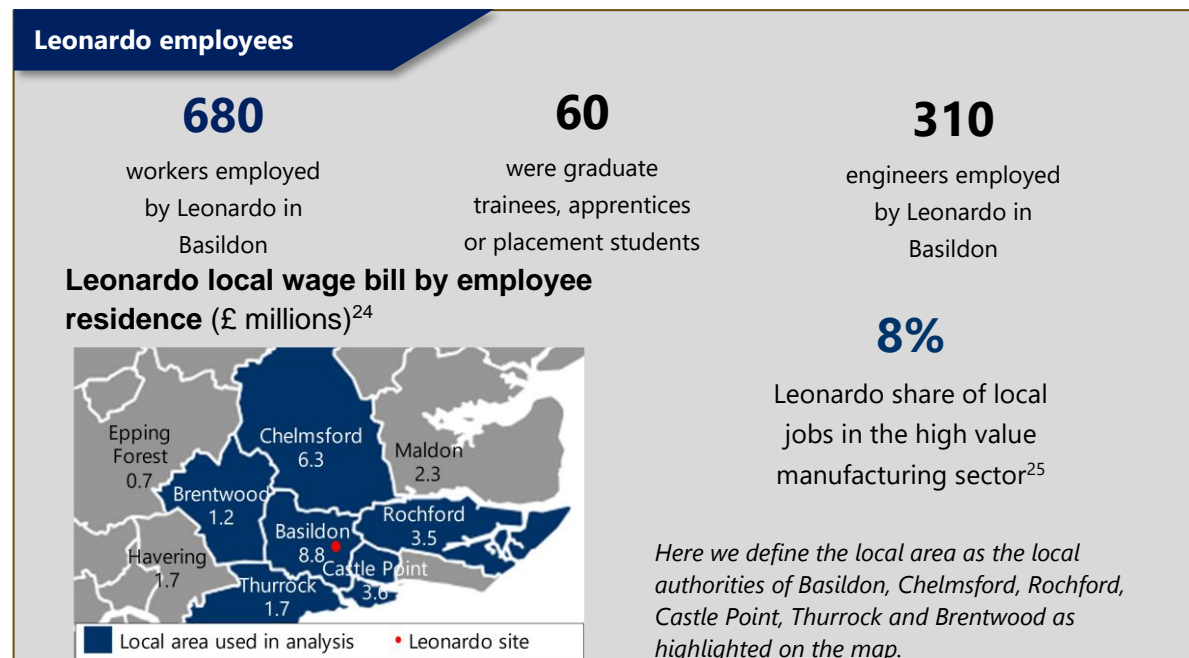


Note: May not sum due to rounding.

Productivity is an estimate of the economic output per worker, calculated by dividing GDP by employment.

7. LEONARDO IN BASILDON

Leonardo operations in Basildon specialise in thermal imaging systems, radar systems, radio communications, and infra-red detectors.



²⁹ Includes all Leonardo employees living in these areas, not exclusively those working at the Luton site.

³⁰ High value manufacturing includes the manufacturing of; computers, electronic and optical products; electrical equipment; machinery and equipment; motor vehicles, trailers and semi-trailers; and other transport equipment.

³¹ Includes procurement spending from all of Leonardo UK's sites.

Total economic impact on the local area

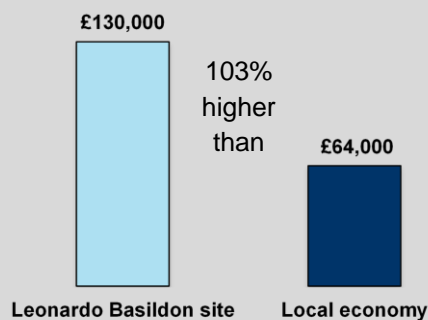


Impact on the local area's wages

Note: May not sum due to rounding.



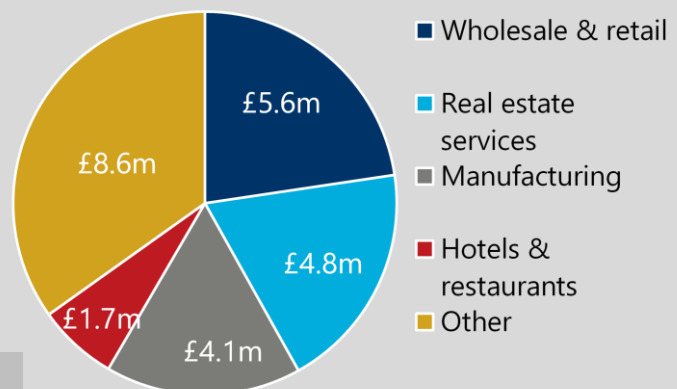
Productivity boost



Productivity is an estimate of the economic output per worker, calculated by dividing GDP by employment.

Contribution to local industry

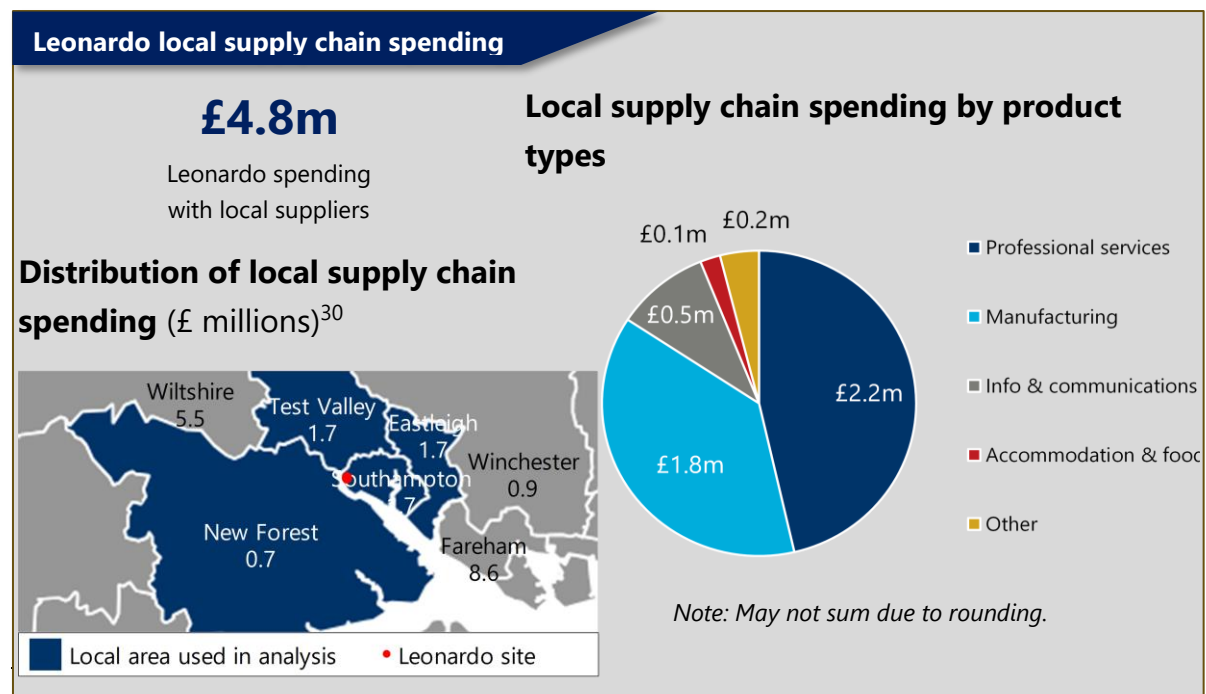
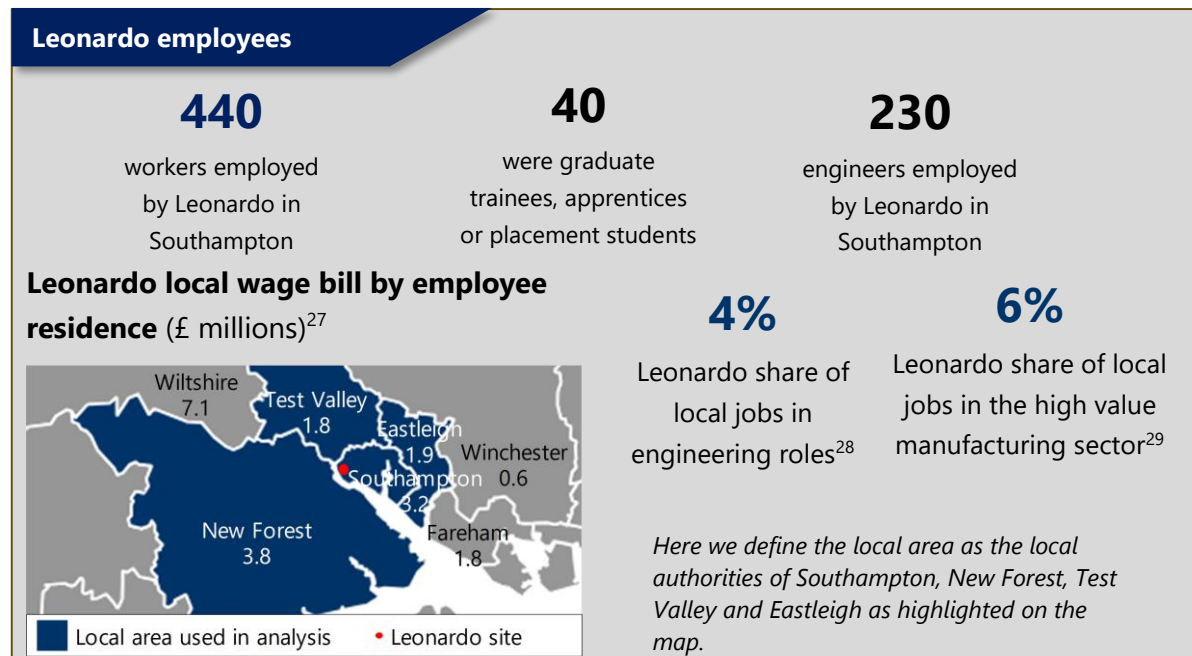
Sum of local indirect and induced GDP impact by industry:



Note: May not sum due to rounding.

8. LEONARDO IN SOUTHAMPTON

Leonardo operations in Southampton specialise in communications, optronics, air traffic management and other airborne and marine technologies.



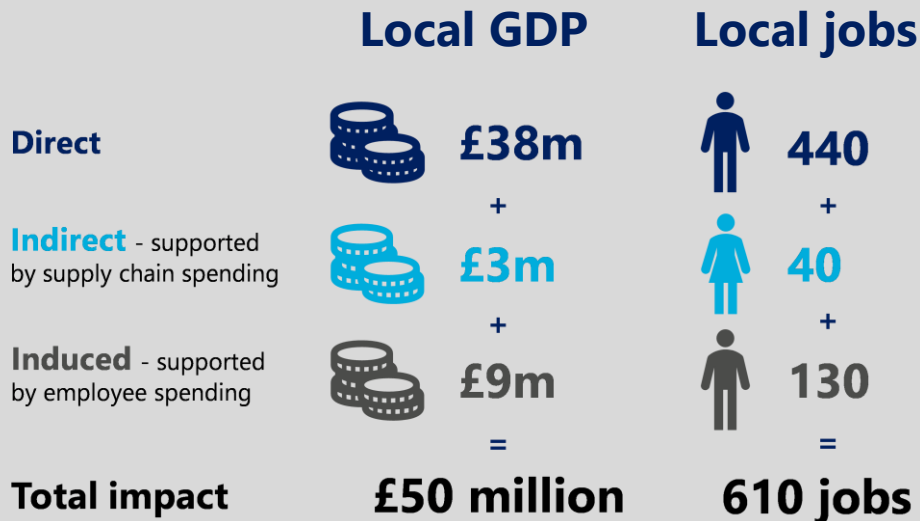
³² Includes all Leonardo employees living in these areas, not exclusively those working at the Southampton site.

³³ Leonardo engineer roles compared to those in local area classed as Engineering Professional in the Office for National Statistics Annual Population Survey.

³⁴ High value manufacturing includes the manufacturing of; computers, electronic and optical products; electrical equipment; machinery and equipment; motor vehicles, trailers and semi-trailers; and other transport equipment.

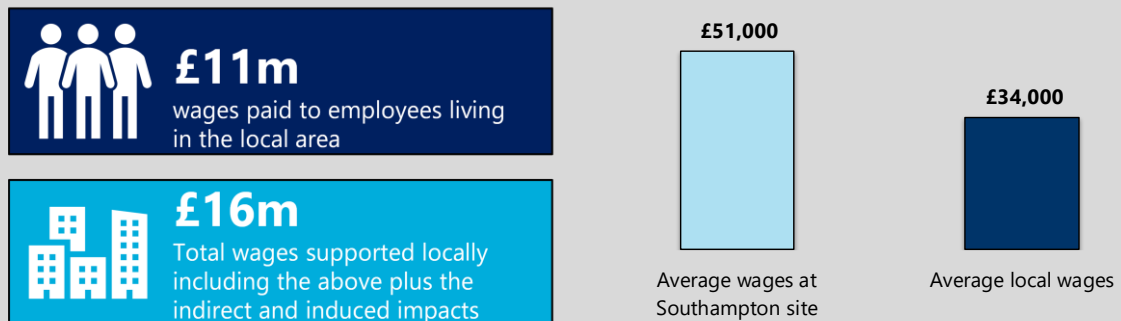
³⁵ Includes procurement spending from all of Leonardo UK's sites.

Total economic impact on the local area

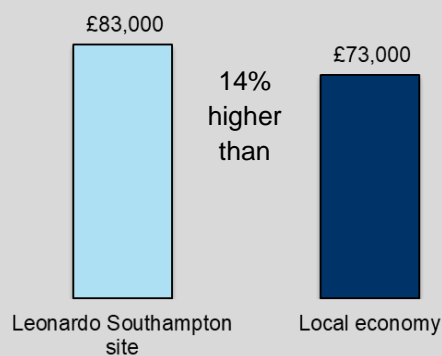


Impact on the local area's wages

Note: May not sum due to rounding

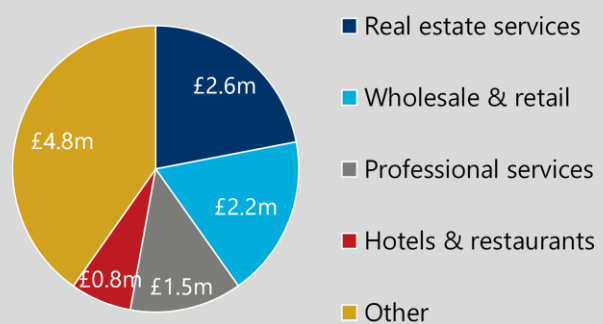


Productivity boost Contribution to local industry



Productivity is an estimate of the economic output per worker, calculated by dividing GDP by employment.

Sum of local indirect and induced GDP impact by industry:



Note: May not sum due to rounding.

9. LEONARDO IN LINCOLN

Leonardo operations in Lincoln provide support to customers of the company's electronic warfare capabilities and houses the Leonardo Training Academy, educating technical specialists on cyber and electromagnetic warfare.

Leonardo employees

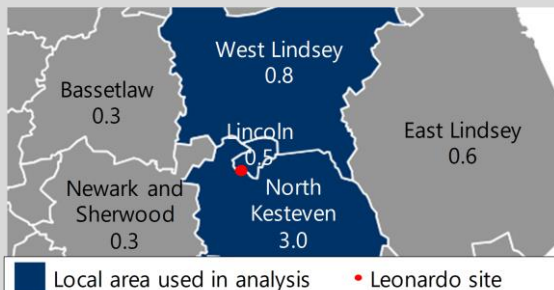
110

workers employed
by the Leonardo
site in Lincoln

80

engineers employed
by the Leonardo site
in Lincoln

Leonardo local wage bill by employee residence (£ millions)³¹



3%

Leonardo share of local
jobs in the high value
manufacturing sector³²

Here we define the local area as the local authorities of West Lindsey, Lincoln and North Kesteven as highlighted on the map.

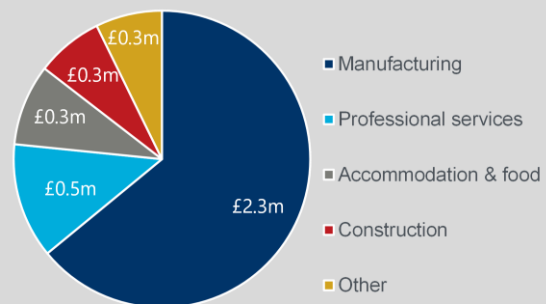
Leonardo local supply chain spending

£3.6m

Leonardo spending
with local suppliers

Local supply chain spending by product types

Distribution of local supply chain spending (£ millions)³³



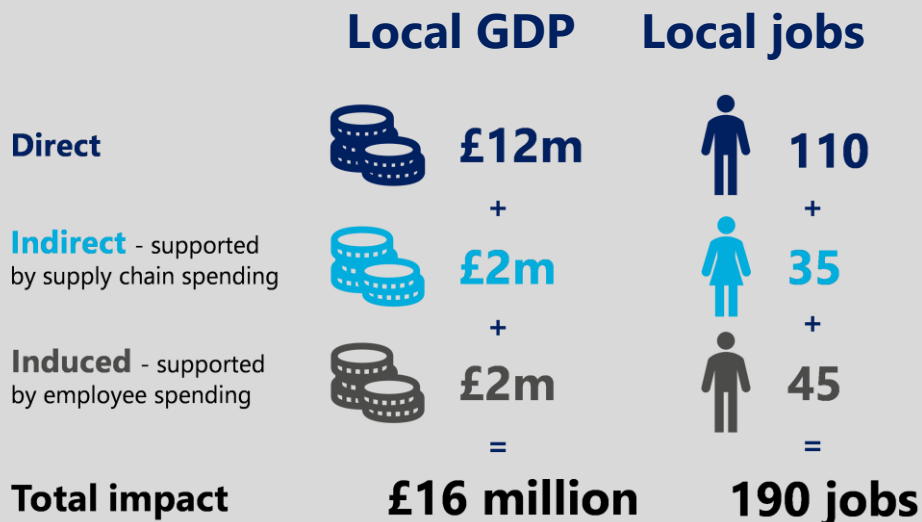
Note: May not sum due to rounding.

³⁶ Includes all Leonardo employees living in these areas, not exclusively those working at the Southampton site.

³⁷ High value manufacturing includes the manufacturing of: computers, electronic and optical products; electrical equipment; machinery and equipment; motor vehicles, trailers and semi-trailers; and other transport equipment.

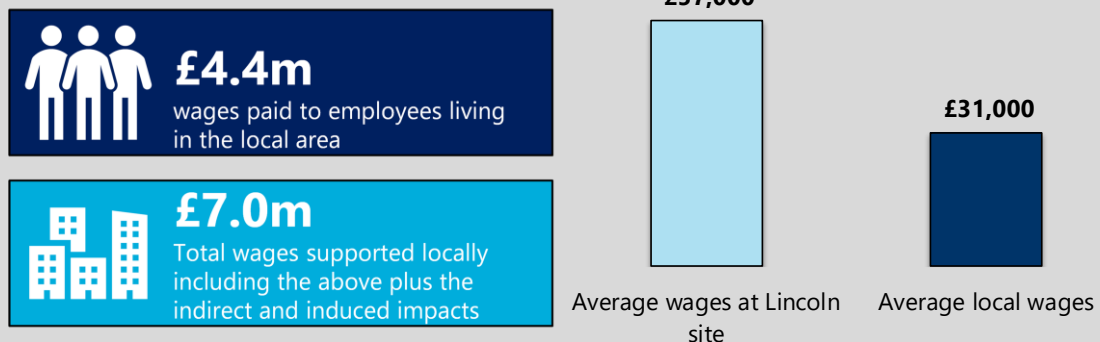
³⁸ Includes procurement spending from all of Leonardo UK's sites.

Total economic impact on the local area

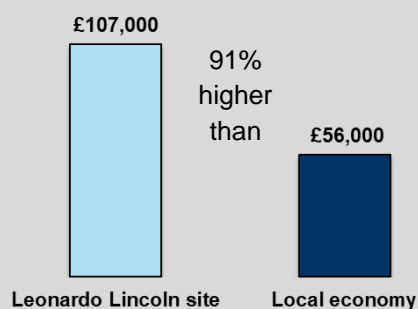


Impact on the local area's wages

Note: May not sum due to rounding.

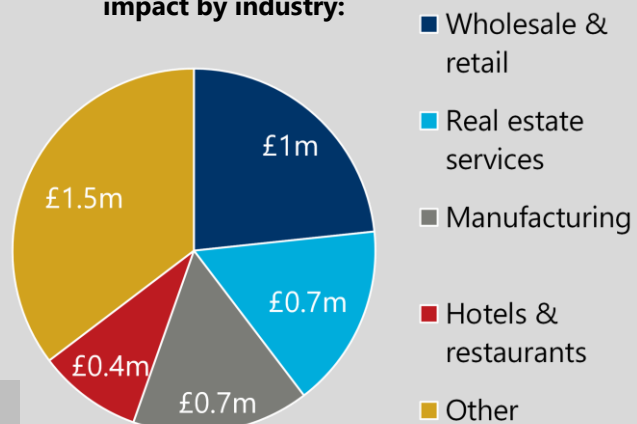


Productivity boost Contribution to local industry



Productivity is an estimate of the economic output per worker, calculated by dividing GDP by employment.

Sum of local indirect and induced GDP impact by industry:



Note: May not sum due to rounding.

10. THE ECONOMIC IMPACT OF LEONARDO UK'S CYBER SECURITY BUSINESS

£240

Total UK GDP supported in 2023 for every £100 in direct GDP contribution



290

Total jobs supported in 2023 for every 100 jobs directly with the company



£1.3 million

Total R&D spending in 2023 by Leonardo UK's cyber security business



10.1 EXECUTIVE SUMMARY

Leonardo UK's cyber security business provides technology and services to organisations such as the emergency services, critical national infrastructure, large enterprises, government and international agencies.

This chapter examines the ways that the cyber security business delivers economic benefits to the UK.

CORE ECONOMIC IMPACTS

We estimate **Leonardo UK's cyber security business contributed a total of £74 million to UK GDP in 2023**. Of this, £31 million came from the business's direct operations, a further £17 million from its supply chain spending, and £26 million from the spending of employees of Leonardo and its supply chain in the consumer economy. This means the company supports £240 in GDP contributions across the UK for every £100 directly generated in GDP by Leonardo itself.

We estimate **this economic activity supported a total of 880 jobs** around the UK in 2023. Of these, 300 jobs were directly with Leonardo, while 250 were supported by the business's supply chain spending, and 330 by workers spending their wages. This means that for every 100 workers in Leonardo UK's cyber security business, a total of 290 were supported around the economy.

Leonardo cyber security workers have significantly higher productivity levels than the average for the UK. On average, Leonardo workers contributed £109,000 a year to GDP in 2023, compared to a UK average of £63,000 that year.

CATALYTIC IMPACTS: LEONARDO'S CONTRIBUTION TO THE UK'S LONG-TERM PROSPERITY

Leonardo UK's cyber security business carried over £1.3 million in R&D in 2023, an annual figure that has steadily grown from just under £0.4 million in 2018.

The business also contributes to the upskilling of the UK workforce, with eight graduate trainees and 17 apprentices, as well as secondary school outreach programmes.

This case study box provided by Leonardo**TRUSTED TO DELIVER SECURE BY DESIGN FOR MISSION CRITICAL SYSTEMS**

Leonardo invests in innovative cyber security solutions to address tomorrow's threats, delivering mission-critical systems that provide 'security by design' for the most complex and sensitive national capabilities. This includes Intelligence Systems that share and analyse highly classified sensor and intelligence data, cyber technology for a next generation Combat Air Platform, future 5G network infrastructure and the UK's Electricity and Gas distribution systems.

Leonardo is one of a select group of companies to be assured by the National Cyber Security Centre (NCSC) for Security Risk Management. This provides their customers with an extra layer of confidence, knowing that Leonardo can deliver its capability using skilled and experienced security professionals, with a robust and effective assurance process for their work overseen by a NCSC-certified Head Consultant.

'Secure by Design' is all about ensuring that security supports the delivery of mission and business objectives, and takes control of the management of risk, rather than simply complying with a defined standard. This has the effect of prioritising security much earlier on in the delivery lifecycle, reducing costs and improving security outcomes through-life.

Within Defence, Leonardo is one of the K4 security partners for the UK's Future Combat Air Systems (FCAS) Programme. Leonardo is coordinating the delivery of the Secure by Design programme for FCAS, working with its partners to understand how to manage the risks associated with as yet unknown security threats in 2035+. This work spans a wide range of capabilities, from next generation platform computing systems for missions, to the information and data analytics environments to enable the delivery of the programme, allowing the customer to gain an advantage by accessing vast quantities of data before, during and after a mission.

In the Critical National Infrastructure sector, the team is working with a major European energy generation and distribution company that is classed as an Operator of Essential Services, due to their role in the UK and Europe's power generation. Since 2022, Leonardo has been supporting them so that they can meet strict regulatory obligations around cyber security, ensuring that they understand the cyber resilience of their power generation operations. Leonardo is supporting the development of solutions to ensure compliance with regulatory obligations, while managing the cyber security risks to their assets and operations.

10.2 INTRODUCTION

Leonardo UK's Bristol-based cyber security business supplies services and technology to government agencies and private firms in both the civil and defence markets, domestically and around the world. The business has in-house R&D and manufacturing capabilities to develop new security options for clients.

The key areas of the business cover: police and emergency services; critical national infrastructure and large enterprises; government, defence, and international agencies; and, cyber security and digital competence.

In addition to work for clients, Leonardo UK's cyber security business plays an important internal role for the company by ensuring that the company's networks and systems are protected from cyber-attacks.

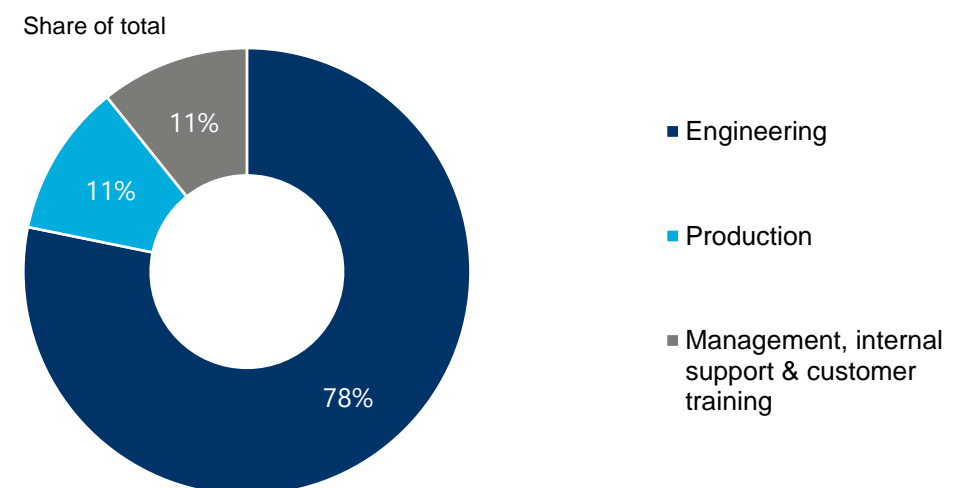
This chapter sets out the total economic impact that the cyber security business has on the UK economy, including its contribution to the country's long-term prosperity through exports and its innovative products.

10.3 EMPLOYMENT CONTRIBUTION

10.3.1 Direct employment

A total of 300 people worked for Leonardo UK's cyber security business in 2023, including eight graduate trainees and 17 apprentices. Nearly 80% of staff were in engineering roles with the remaining staff working across production, management, and internal support positions.

Fig. 38. Breakdown of Leonardo UK's cyber security business employees by role, 2023

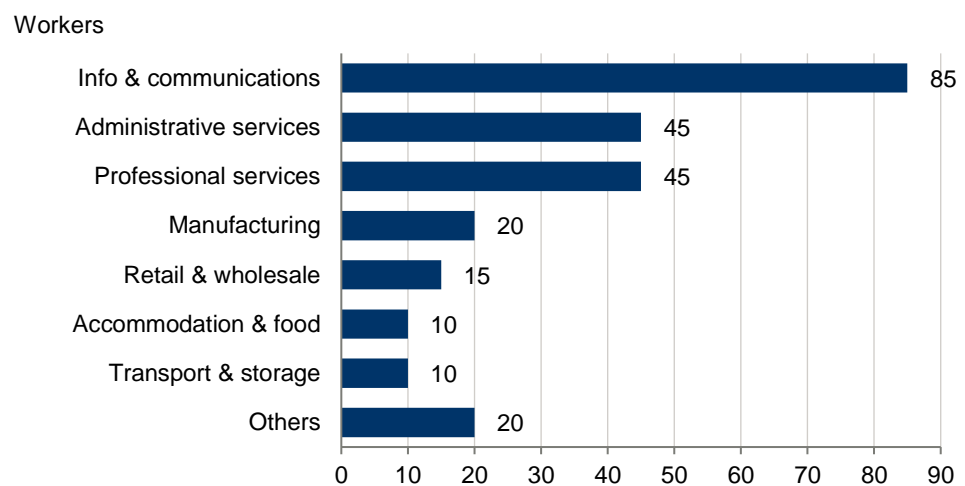


Source: Leonardo

10.3.2 Supply chain contribution to employment

Leonardo UK's cyber security business made £21 million of procurement purchases from UK businesses in 2023, including capital investment spending. These purchases stimulate further spending by firms through the supply chain. All told, we estimate this supply chain spending supported some 250 jobs across the economy. The largest impact was felt in the information and communication technology sector, reflecting the cyber security business's area of focus.

Fig. 39. Leonardo UK's cyber security business indirect impact by sector, 2023

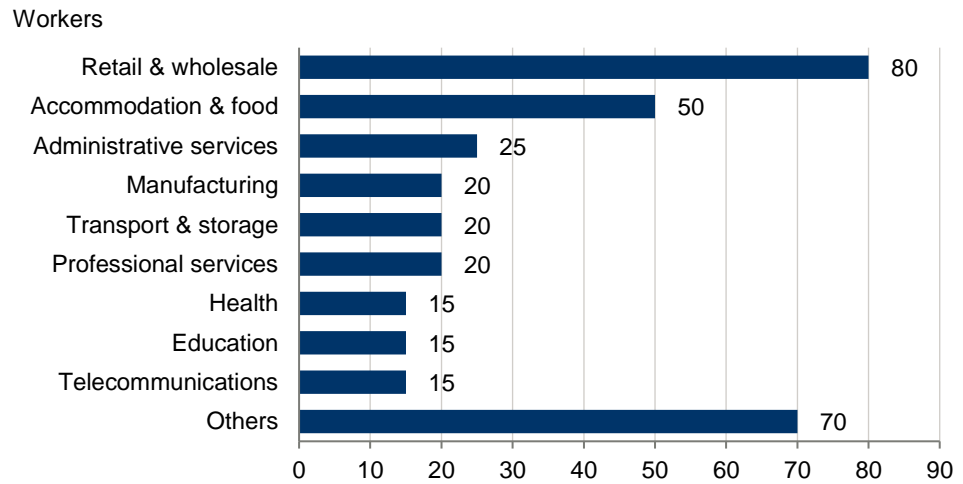


Source: Oxford Economics

10.3.3 Employment supported by worker spending

The wage-funded spending of Leonardo UK's direct and supply chain workers supported a further 330 jobs in the UK through induced impact. The largest employment sector was retail and wholesale, with 24% of the total.

Fig. 40. Leonardo UK's cyber security business induced employment impact by sector, 2023



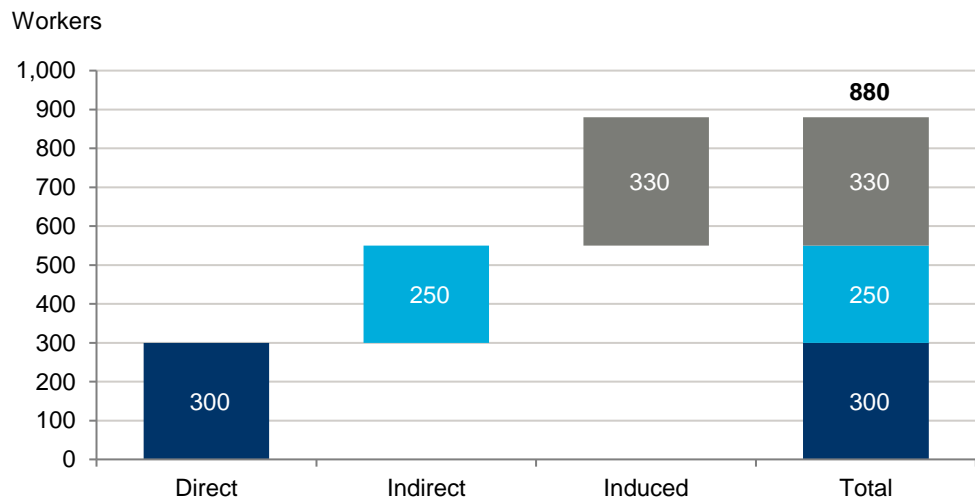
Source: Oxford Economics

10.3.4 Total employment contribution

Through its in-house activities, its supply chain, and the activity supported by the spending of workers employed both by Leonardo and its supply chain, we estimate Leonardo UK's cyber security business supported 880 jobs in the UK in 2023.

This means that for every 100 jobs directly with Leonardo UK's cyber security business, approximately 290 were supported around the economy.

Fig. 41. Leonardo UK's cyber security business total employment impact, 2023



Source: Oxford Economics

This case study box provided by Leonardo**FIT FOR THE DIGITAL AGE**

The Leonardo 2024-2028 Industrial Plan calls for a massive deployment of digitalisation and focused R&D. These will be in high value-added areas and sectors including cloud, super-computing, resilient communication, security by design and artificial intelligence. The aim is to create a 'Leonardo of the future' centred on Multi-Domain Integration, investment in Cyber and consolidation in Space.

At its core, Leonardo UK is a data and software company with a heritage in electronics, sensors, and helicopters. This is informed by substantial domain experience of how its products are used by military operators.

The company is already acting at pace to deliver the core tenets of the Industrial Plan as relating to R&D and digitalisation, and the work Leonardo is doing today in digitalisation/data fusion/AI will improve the delivery of ongoing programmes and improve its future offering to the customer.

For example, through new digital electronics factories across its UK sites, Leonardo is seeing significant acceleration in product development, thanks to a new data-driven approach to design and manufacturing, utilising the 'common data environment' which went live in June 2022.

In April 2023, Leonardo also became the first major defence contractor in the UK to migrate key applications onto the secure cloud, having deployed the cloud-based Azure platform across its UK business in collaboration with Microsoft and Accenture.

Leonardo UK's scientists and engineers now have secure access to a remotely-accessible 'digital backbone' that will accelerate product research, cut development costs and enable closer collaboration with customers and partners.

10.4 GDP CONTRIBUTION

10.4.1 Direct contribution to GDP

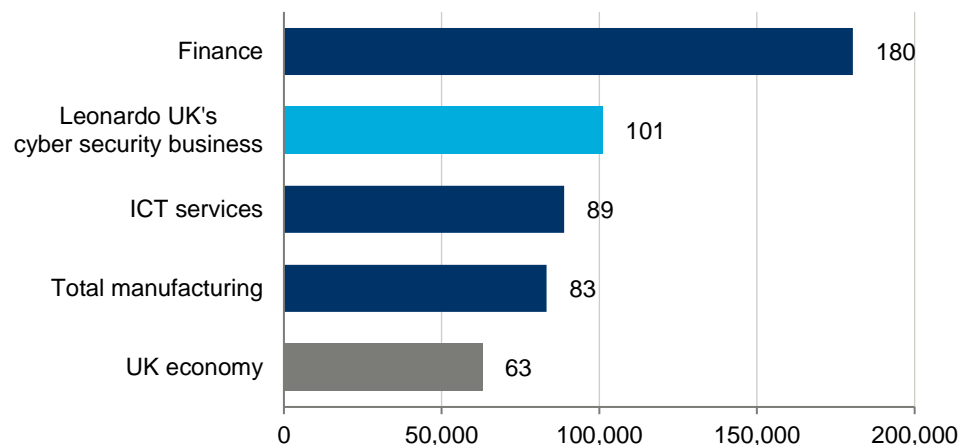
Leonardo UK's cyber security business generated £57 million in revenue in 2023, all of which was through UK customers.

In the generation of this revenue, we estimate that Leonardo UK's cyber security business directly supported £31 million in GDP contributions, based on just under £22 million in employee compensation and £8.5 million in profits and taxes on production.

Employees of Leonardo UK's cyber security business contributed an average of £101,000 to GDP in 2023, significantly more than the £63,000 average for the UK as a whole.

Fig. 42. Average GDP per worker levels for selected UK industries, 2023

£ Thousands, contribution to GDP

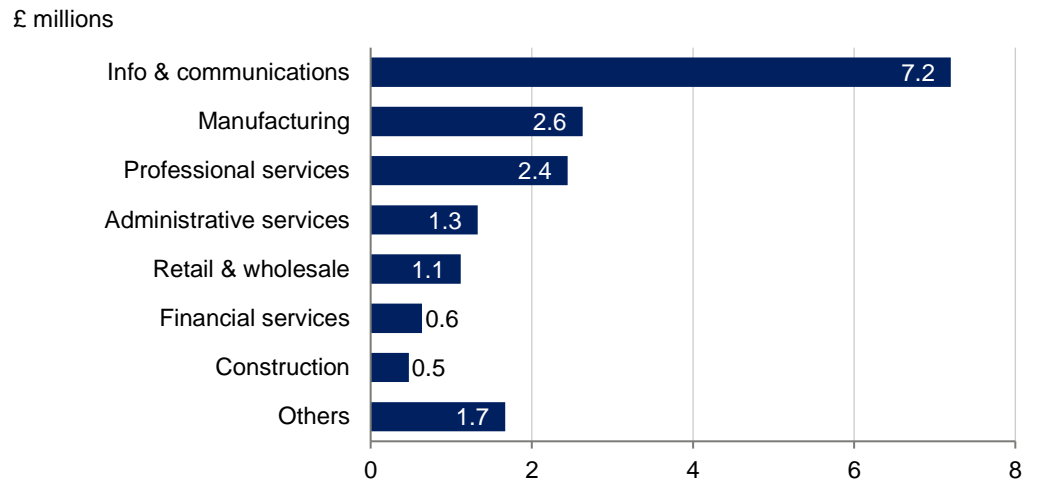


Source: Oxford Economics, Office for National Statistics, Leonardo

10.4.2 Supply chain contribution to GDP

We estimate that the business's supply chain spending supported £17 million in GDP contributions. The information and communications sector was by far the largest contributor to this indirect impact, supporting 42% of the total.

Fig. 43. Leonardo UK's cyber security business indirect GDP impact by sector, 2023



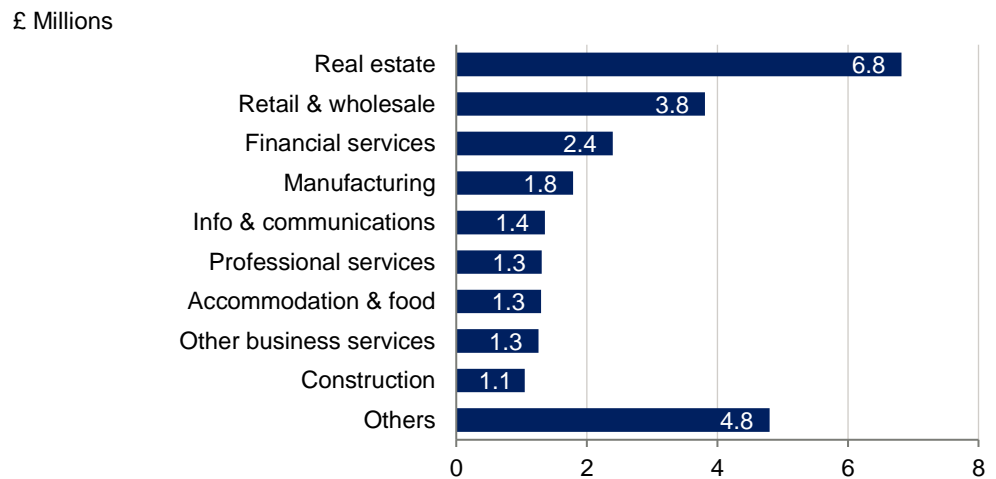
Source: Oxford Economics

10.4.3 GDP supported by worker spending

The business paid £17 million in wages and salaries to employees in 2023. By using their wages to purchase goods and services throughout the UK economy, we estimate Leonardo employees, as well as workers in the supply chain, supported a further £26 million in GDP contributions in 2023.

Most of that impact was felt in the real estate and retail and wholesale sectors, reflecting mortgage and rental payments as well as spending in shops.

Fig. 44. Leonardo's UK-based cyber security business induced GDP impact by sector, 2023

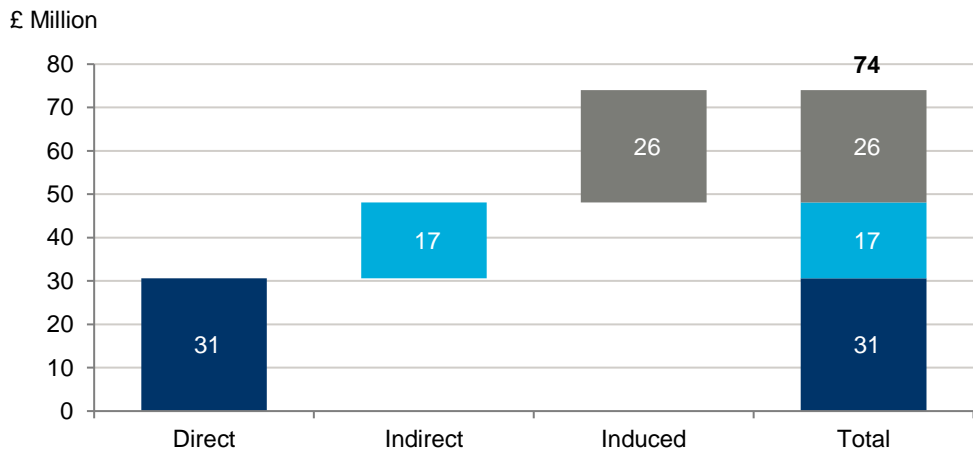


Source: Oxford Economics

10.4.4 Total GDP contribution

The total GDP impact of Leonardo UK's cyber security business in 2023 was £74 million. This means that for every £100 in GDP contributions directly supported, a total of £240 of economic activity was supported around the economy.

Fig. 45. Leonardo UK's cyber security business total GDP impact, 2023



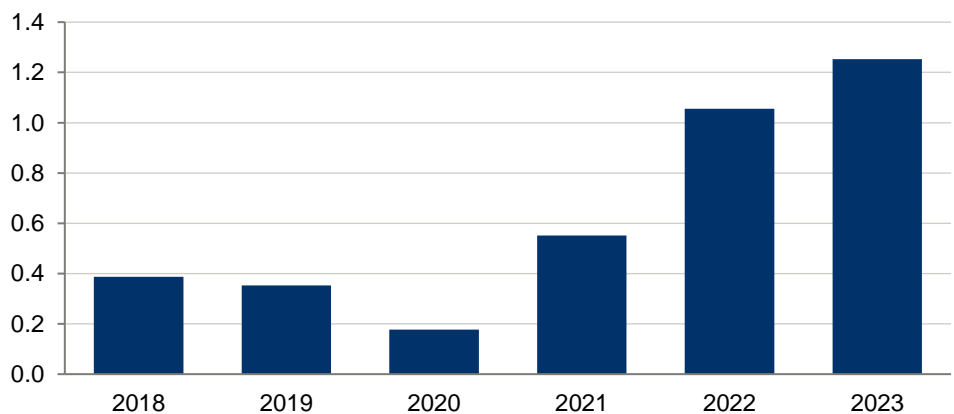
Source: Oxford Economics

10.4.5 Research and development

Leonardo UK's cyber security business performed nearly £1.3 million of R&D activity in 2023 and a total of more than £2.5 million over the five preceding years in nominal terms. By engaging in R&D activity, Leonardo is generating wider, long-term productivity benefits for the UK.

Fig. 46. Leonardo UK's cyber security business R&D activity by year

£ Millions, nominal terms



Source: Leonardo

This case study box provided by Leonardo**THE SOCIAL CONTRIBUTION OF LEONARDO UK'S CYBER SECURITY BUSINESS**

'WithYouWithMe' (WYWM) is an organisation that matches individuals to secure, high-paying, high-demand tech roles. They provide free role matching and technical training via bespoke development pathways, after identifying applicants' transferrable skills and aptitudes to learn the technical skills required.

At its site in Bristol, Leonardo designs and develops cyber and security solutions for British government agencies and commercial organisations that form part of the UK's national critical infrastructure to address modern and evolving threats.

Leonardo is adopting a skills-based culture-fit approach to its cyber recruitment, recognising that many of the skills acquired by veterans and emergency service leavers were transferrable to their digital skills gaps, including the ability to assess threats, analyse requirements, work under pressure, face unforeseen challenges and communicate effectively with clients.

In partnership with WYWM, Leonardo has embarked on a programme to implement skills-based talent management. Faced with a modern security landscape characterised by rapid technological change and ever-evolving threats, Leonardo recognised a need to expand its cyber teams in a way that enables diversity of thought, skills and insight.

After finding traditional hiring methods insufficient to meet their requirements, Leonardo worked with WYWM to find a new approach to fill digital gaps; one that would not only deliver a unique and high-performing team, but also create a positive social impact.

This coincided with the company's ongoing work to find new ways to support the UK Armed Forces community – helping military leavers, veterans and reservists find employment. In 2022, Leonardo pledged to join the 15,000 Futures initiative that calls upon UK employers to provide digital career opportunities for Armed Forces veterans and their families.

This skills-first approach created an environment where Leonardo can view talent differently, focusing on current and potential skillsets, rather than relying solely on outmoded qualifications and previous work experience. Through its work with WYWM, Leonardo also saw an opportunity to find and hire talent from other previously overlooked pools such as those living with disabilities and displaced workers, leveraging the WYWM 'Potential' platform.

After seeing the success of Cyber squad members already in action, Leonardo hopes to leverage the new development pathways to create streamlined routes for more diverse talent to join the organisation.

In September 2023, the Cyber Division embarked on a new volunteering partnership with Ablaze. Ablaze aims to increase the confidence and aspirations of young people across the West of England, by connecting them to business volunteers who can provide essential insight, support and guidance for their future growth. Volunteers from the Leonardo Cyber Division go into local schools and help primary school aged children with their reading and comprehension. This 1:1 support not only assists in the pupils' academic growth, it also increases their confidence and self-belief.

This case study box provided by Leonardo**COLLABORATING WITH DSTL FOR INCREASED SURVIVABILITY**

Leonardo UK and the Defence Science & Technology Laboratory (DSTL) signed a Strategic Relationship Charter in 2023, under Leonardo's Strategic Partner Programme with the UK Government. The aim of the Charter is to enhance a joint science and technology capability, so that both organisations are better equipped to deliver high impact, 'generation after next' capability to meet future Defence and Security requirements.

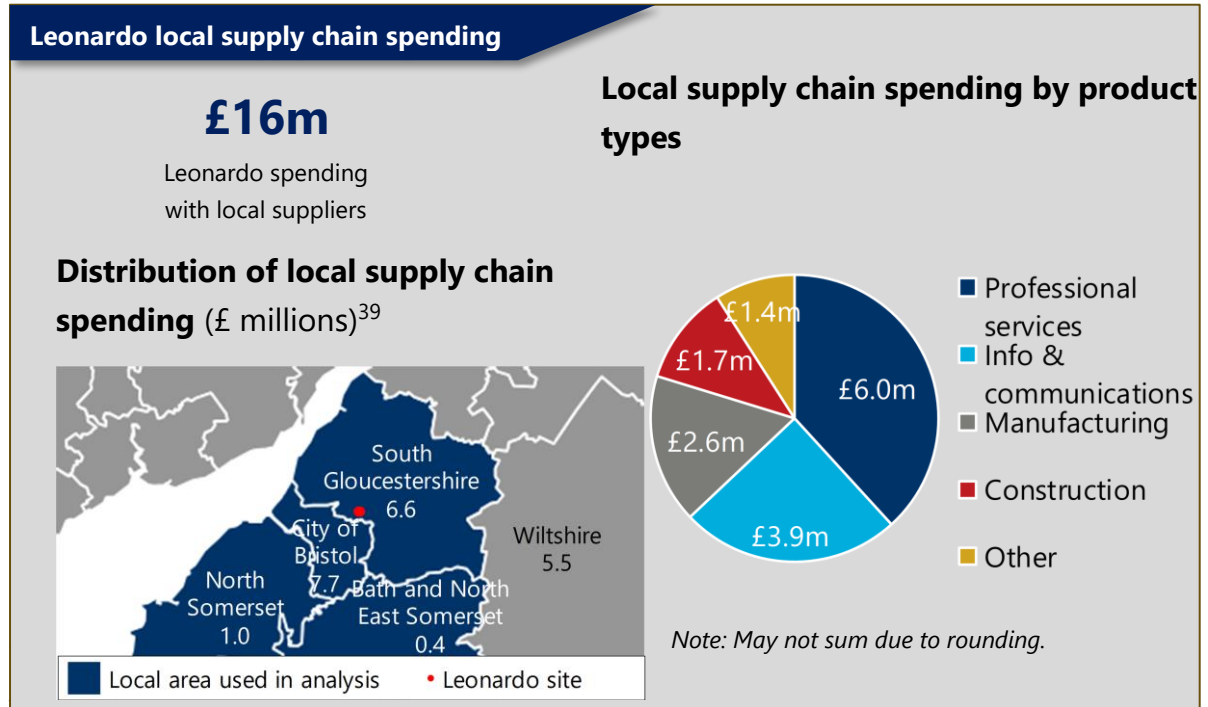
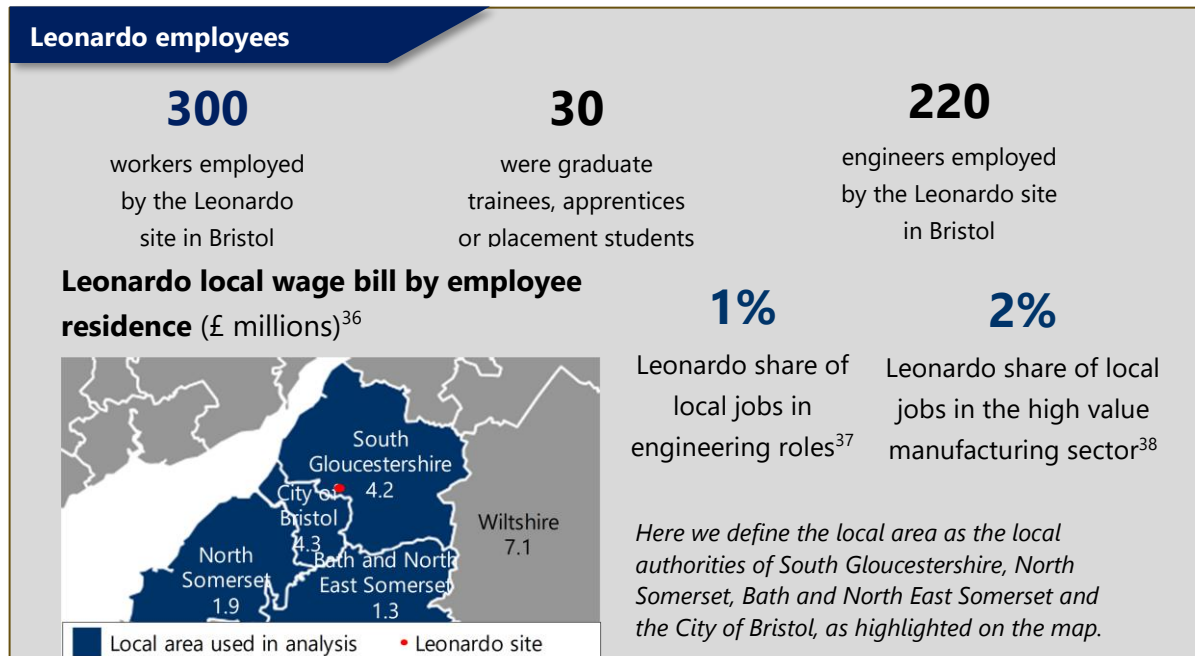
This is done through a number of actions, such as sharing research priorities and specialist knowledge so that the company's internal research investment is well-aligned to those of its research partners in Government, whilst ensuring that Leonardo UK can continue to deliver relevant capability and research capacity to the UK defence sector. The partnership has a clear interest in the development of rare and specialist skills, knowledge, and expertise that are required to respond to a more contested and volatile world.

By working together through a strategic relationship, Leonardo believes it can improve the benefits delivered by public investment in innovation and technology. This includes sharing the output of horizon scanning and joint partnering in its academic activity, to avoid duplication and increase the return from investments. In addition, Leonardo is able to provide direct support for the industrialisation of DSTL research. Partnerships such as Team Protect, the Rotary Wing Strategic Partnering Agreement and the Air Platform Protection SPA provide clear mechanisms that DSTL can use to industrialise their research. It can also influence Leonardo capability and the company's support for DSTL / MOD decision-making around some of the most challenging areas of defence science and technology. The industrialisation of research not only ensures Government-funded research reaches the front line, it also generates jobs and expertise throughout the UK.

A related activity is Leonardo partnerships with SMEs, which include a large number of research-intensive SMEs throughout the country, that provide skills and expertise that can create new synergies with the Leonardo skills base. Leonardo continues to build dynamic and innovative partnerships with these SMEs in areas such as autonomy, niche areas of AI and Machine Learning, quantum photonics and CEMA, to ensure that its future value chain is resilient, innovative and able to support its new and emerging capability-set.

11. LEONARDO IN BRISTOL

The Leonardo site in Bristol is the headquarters for the company's UK cyber security team.

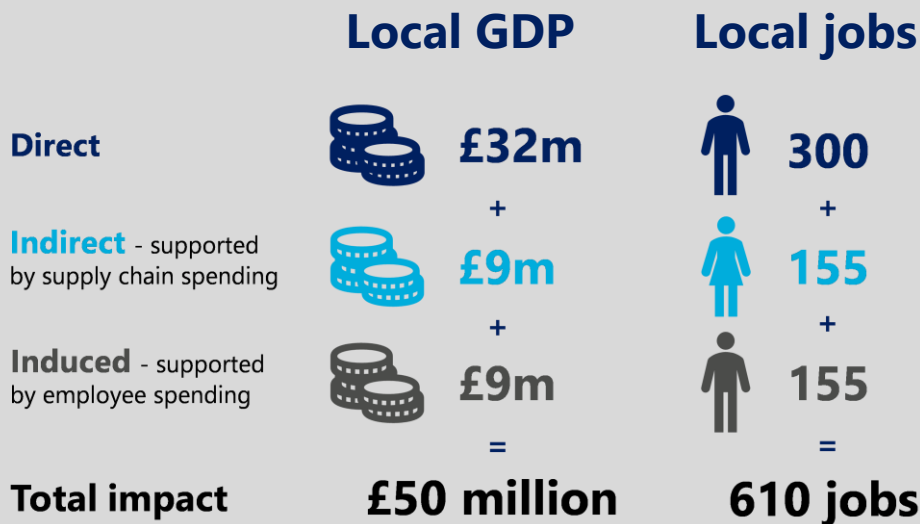


⁴² Leonardo engineer roles compared to those in local area classed as Engineering Professional in the Office for National Statistics Annual Population Survey.

⁴³ High value manufacturing includes the manufacturing of: computers, electronic and optical products; electrical equipment; machinery and equipment; motor vehicles, trailers and semi-trailers; and other transport equipment

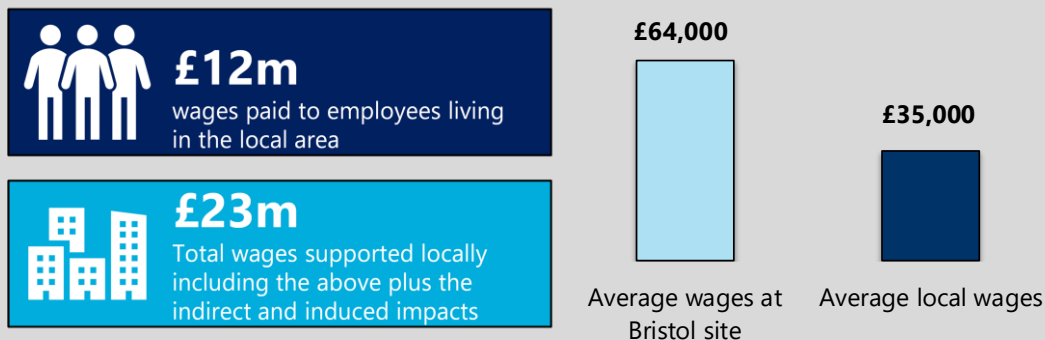
⁴⁴ Includes procurement spending from all of Leonardo UK's sites

Total economic impact on the local area

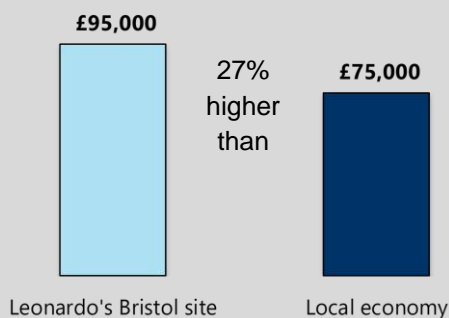


Impact on the local area's wages

Note: May not sum due to rounding.



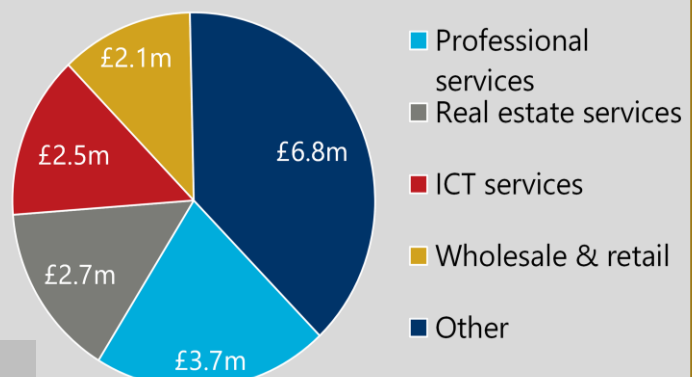
Productivity boost



Productivity is an estimate of the economic output per worker, calculated by dividing GDP by employment.

Contribution to local industry

Sum of local indirect and induced GDP impact by industry:



Note: May not sum due to rounding.

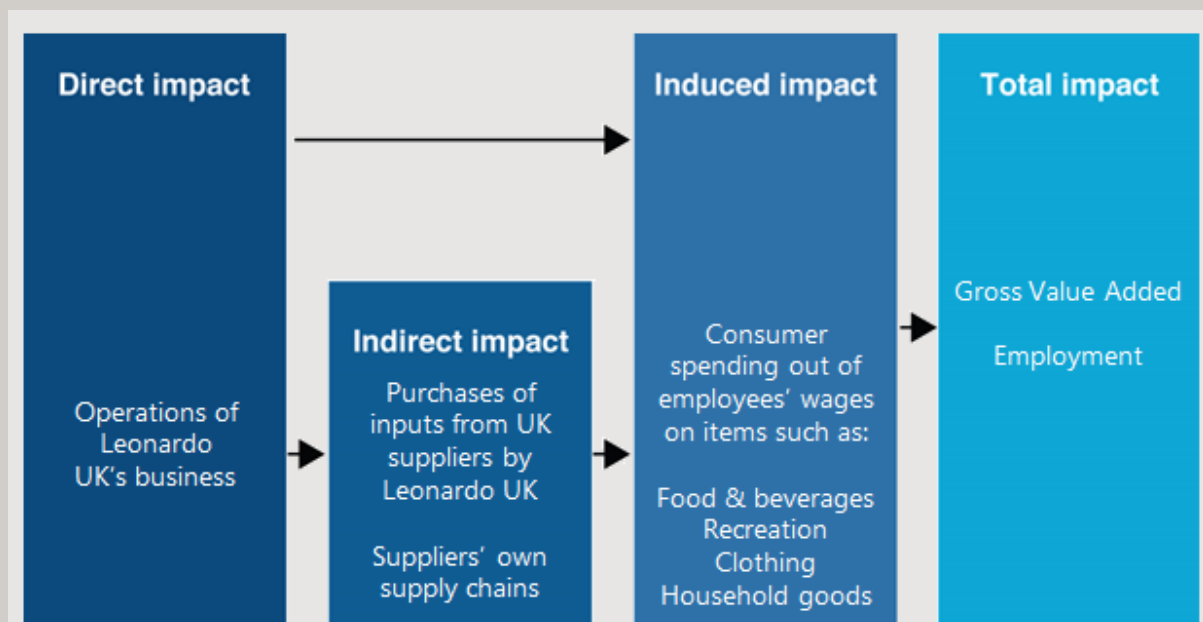
APPENDIX A: ECONOMIC IMPACT MODELLING METHODS

ECONOMIC IMPACT MODELLING

Economic impact modelling is a standard tool used to quantify the economic contribution of an investment or a company. Impact analysis traces the economic contribution of an investment through three separate channels:

- **Direct impact:** refers to activity conducted directly by Leonardo in the UK.
- **Indirect impact:** consists of activity that is supported as a result of the procurement of goods and services by Leonardo in the UK, as well as purchases by those companies, and so on down the supply chain.
- **Induced impact:** reflects activity supported by the spending of wage income by direct and indirect employees.

Fig. 47. Direct, indirect, induced, and total economic impacts



Direct impacts

The direct value added of Leonardo is calculated using the "income approach" method for estimating GDP contributions. This means that we sum compensation of employees (including employer pension and National Insurance contributions); EBITDA, and taxes on production (largely business property rates).

Indirect and induced impacts

Indirect and induced impacts are estimated using an “input-output” model. An input-output model gives a snapshot of an economy at any point in time. The model shows the major spending flows from “final demand” (i.e. consumer spending, government spending, investment, and exports to the rest of the world); intermediate spending patterns (i.e., what each sector buys from every other sector—the supply chain in other words); how much of that spending stays within the economy; and the distribution of income between employment and other forms such as corporate profits. As these models measure activity within an economy, the direct impact figures will often not match company annual accounts, which follow accounting standards and rules.

An input-output model uses a matrix representation of a nation’s interconnected economy to calculate the effect of changes by consumers, by an industry, or by others, on other industries and therefore on the economy as a whole. These input-output tables ultimately measure “multiplier effects” of an industry by tracing the effects of its inter-industry transactions—that is, the value of goods and services that are needed (inputs) to produce each pound of output for the individual sector being studied. These models can be used to measure the relationship between an economic change or “shock,” and the final outcome across the whole of the economy.

In summary, an input-output model is a table which shows who buys what from whom in the economy.

Oxford Economics used the input-output table for the United Kingdom for 2019, published by the ONS in 2023, for this analysis. This is the most recent input-output table for the United Kingdom.

Direct, indirect and induced employment figures in this report have been rounded to the nearest 100 FTE jobs. The multipliers quoted in the report represent the multiple of direct impacts that account for total impacts. For instance, if 20 FTE jobs were direct impacts and the total impact multiplier was 2, then the total impact would be 40 FTE jobs. These multipliers are calculated from the input-output model results.

Indirect jobs are presented including the contingent labour or contractors that Leonardo hires.

Industry breakdowns

The UK 2019 input-output table is divided into 105 different industry sectors, and the table shows how each sector interacts with the 104 other sectors. For purposes of illustration to show value added and employment supported across different sectors, the 105 different industries have been pooled into broad industry categories. For example, the professional services industry amalgamates the following sectors:

- Legal services
- Accounting, bookkeeping and auditing services; tax consulting services
- Services of head offices; management consulting services
- Architectural and engineering services; technical testing and analysis services
- Scientific research and development services
- Advertising and market research services
- Other professional, scientific and technical services

LOCAL ECONOMIC IMPACT MODELLING

Our modelling of the impact of Leonardo on the local areas around each of its sites is conducted using a slightly different approach, detailed below.

Direct impact

The direct impact is calculated as the sum of employee compensation (including wages and salaries, employer pension contributions and employer National Insurance contributions), EBITDA and taxes on production, the majority of which is business property rates. This information was provided by Leonardo.

Indirect impact

For the first stage of the indirect impact calculation, we used detailed information from Leonardo on the locations of their suppliers, the sums spent with them, and the suppliers' industries (using the Office for National Statistics' Standard Industrial Classification 2007).

We then used I-O modelling to calculate the resultant impact of this spending, over all subsequent rounds of Leonardo UK's supply chains. For this, we constructed a suite of bespoke regional and sub-regional I-O models.

These models are based on the national UK input-output tables, as published by the ONS. Oxford Economics use official employment data to adjust these, in order to reflect industrial structures and productive capacity. Our methodology uses so-called "Flegg-adjusted Location Quotients (FLQs)",⁴⁵ which are consistent with the latest approaches and evidence in regional I-O modelling and regional science.

These I-O models quantify the impact of Leonardo's procurement demands in each local area over the entire length of its supply chain, including its suppliers' suppliers, and so on.

Induced impact

The first stage of the induced impact calculation uses detailed information from Leonardo on the total amount of wages paid to workers in each local authority area or council district. This allowed us to map consumer spending to the relevant local communities in which Leonardo workers reside. For

⁴⁵ Anthony T. Flegg and Timo Tohmö, "Estimating Regional Input Coefficients and Multipliers", Working Paper, University of the West of England, Faculty of Business and Law, 2013

workers in Leonardo UK's supply chains, we use our profiles of supply chain production as the starting point. To this, we apply average ratios of wage payments to overall output levels, cut by industry and region.

We then allocate these purchases to the industrial sectors providing goods and services to households (e.g., retail, restaurants, leisure outlets). The allocation follows the distribution of household spending in the UK's national accounts, adjusted for each region, in line with the ONS' regional Family Spending survey. This demand was then inputted into our I-O based impact models, to calculate the total GDP and employment associated with this wage-financed consumption.

Local area definitions

Our local impact modelling is based around local authority districts in England and council areas in Scotland. The authority areas used to model each site are given below, which were selected as the closest authority areas to the site that captured the majority of employee residences. The local authority boundaries are up to date as of 2023.

Yeovil site

- Somerset
- Dorset

Edinburgh site

- City of Edinburgh
- West Lothian
- Fife

Luton site

- Central Bedfordshire
- Luton
- Dacorum
- St Albans
- North Hertfordshire

Southampton site

- Southampton
- New Forest
- Test Valley
- Eastleigh

Lincoln site

- Lincoln
- North Kesteven
- West Lindsey

Basildon site

- Basildon
- Chelmsford
- Rochford
- Castle Point
- Thurrock
- Brentwood

Bristol site

- City of Bristol
- South Gloucestershire
- North Somerset
- Bath and North East Somerset

APPENDIX B: ABOUT OXFORD ECONOMICS

Oxford Economics was founded in 1981 as a commercial venture with Oxford University's business college to provide economic forecasting and modelling to UK companies and financial institutions expanding abroad. Since then, we have become one of the world's foremost independent global advisory firms, providing reports, forecasts and analytical tools on more than 200 countries, 100 industrial sectors, and 8,000 cities and regions. Our best-in-class global economic and industry models and analytical tools give us an unparalleled ability to forecast external market trends and assess their economic, social and business impact.

Headquartered in Oxford, England, with regional centres in New York, London, Frankfurt, and Singapore, Oxford Economics has offices across the globe in Belfast, Boston, Cape Town, Chicago, Dubai, Dublin, Hong Kong, Los Angeles, Mexico City, Milan, Paris, Philadelphia, Stockholm, Sydney, Tokyo, and Toronto. We employ 700 full-time staff, including more than 350 professional economists, industry experts, and business editors—one of the largest teams of macroeconomists and thought leadership specialists. Our global team is highly skilled in a full range of research techniques and thought leadership capabilities from econometric modelling, scenario framing, and economic impact analysis to market surveys, case studies, expert panels, and web analytics.

Oxford Economics is a key adviser to corporate, financial and government decision-makers and thought leaders. Our worldwide client base now comprises over 500 international organisations, including leading multinational companies and financial institutions; key government bodies and trade associations; and top universities, consultancies, and think tanks.

July 2024

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The modelling and results presented here are based on information provided by third parties, upon which Oxford Economics has relied in producing its report and forecasts in good faith. Any subsequent revision or update of those data will affect the assessments and projections shown.

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