

Surrey LSIP

Priorities Workshop 2: Data Pack

Data analysis “health warning”

- This pack has been produced to support discussion on LSIP priorities and focuses on relevant Defence sector occupations and Life Sciences sector only.
- The summary condenses a large volume of underlying data – however, it is not exhaustive and provides a high-level overview
- Full datasets and basic methodologies can be shared if useful.
- We may want to carry out further interrogation and deeper analysis.
- Caution on accuracy: There may be inaccuracies in SOC-coded employment data and job posting data. Figures should be used as broad indicators of trends, not precise counts.
- Always triangulate with other sources, including reports, surveys, and direct employer engagement, to test assumptions and inform decisions.
- Consistent timeframe: 2019–2026 has been used to reflect pre-Covid “normal” conditions and post-pandemic trends. For example, % changes in jobs compare 2019 to projected 2026 figures.



BAE SYSTEMS



Defence sector LMI profile

The Defence sector includes activities that directly support the production and delivery of goods or services for UK and international defence customers. In practice, this spans advanced manufacturing, aerospace, digital and cyber technologies, specialist engineering, construction and complex supply chains.

Definition and analytical approach

- Defence activity cannot be reliably defined using standard SIC classifications. Most industrial codes do not distinguish between civil and military outputs (for example, aerospace manufacturing includes both). Only two SIC codes are defence-specific, weapons and ammunition, and military fighting vehicles, and these represent only a small proportion of total defence-related activity.
- National defence priorities such as combat air, complex weapons, autonomous systems and advanced digital technologies cut across multiple industries and are embedded within broader economic sectors.
- As a result, this profile does not attempt to quantify a narrowly defined “defence sector” locally. Instead, it adopts a proxy approach, analysing occupations and technical capabilities strongly associated with defence-related activity, including high-level engineering, aerospace, digital, cyber and advanced manufacturing roles.
- The analysis should therefore be read as an assessment of Surrey’s defence-relevant capability and capacity, highlighting occupational strengths and economic alignment with national defence growth areas, rather than as a definitive count of defence-only employment.

Occupations analysed

- IT Business Analysts, Architects and System Designers
- Cyber Security Professionals
- Programmers and Software Development Professionals
- Engineering Technicians
- Engineering Professionals n.e.c.
- Production Managers and Directors in Manufacturing
- Mechanical Engineers
- Skilled Metal, Electrical and Electronic Trades Supervisors
- Electrical Engineers
- Electronics Engineers
- Aerospace Engineers
- Data Analysts
- IT Operations Technicians
- IT Quality and Testing Professionals
- Information Technology Professionals n.e.c.

The following slides provide “occupational deep dives” for key occupations that are important to the defence sector (i.e. highly represented, critical to the sector, notable local skills gaps or workforce challenges).

IT Business Analysts, Architects & System Designers

Scale and context:

- 3,799 jobs in Surrey (+19% above national average); declining since 2022.
- West Surrey: 2,790 jobs; East Surrey: 1,009 jobs.
- Average salary: £56.7k; mostly mid-career professionals.

Workforce Insights:

- Gender balance: 78% male / 22% female.
- Early-career entry is limited (16–24 represent 4.2% of workforce).
- Most roles require 3–6 years experience; degree-level education common.

Implications for Defence:

- Core role for **defence IT systems, simulation, and data architecture**.
- Succession and pipeline development crucial; risk of losing mid-career talent.

Cyber Security Professionals

Scale and context:

- 742 jobs in Surrey (+21% above national average); overall decline since 2022.
- West Surrey dominant (530 jobs).
- Average salary: £51.5k.

Workforce Insights:

- 78% male; 16–24-year-olds: 6.7% and 25–34: 35.9%
- Higher level educational attainment (17% Bachelor's and 7% Masters) links to workforce age profile.

Implications for Defence:

- Key for **cyber resilience in defence operations and IT infrastructure**.
- High entry-level recruitment opportunity; need to build structured **upskilling pathways**.

Programmers and Software Development Professionals

Scale and context:

- 8,884 jobs (+20% above national average); declining since 2022.
- Concentrated in West Surrey.
- Average salary: £55k.

Workforce Insights:

- Gender imbalance: 84% male.
- Early-career entry (16–24: 8.3%) better than some engineering roles.
- High volume of postings: 350–500 per month.

Implications for Defence:

- Supports **software development for simulations, avionics, defence systems, and AI applications.**
- Opportunities to develop **career pathways and apprenticeship models.**

Engineering Professionals (Mechanical, Electrical, Electronics, Aerospace)

Scale and context:

- Surrey totals: 445 jobs depending on sub-discipline; mixed growth/decline.
- West Surrey dominant in electronics, aerospace, and electrical; East Surrey shows technician-level growth, as well as growth in electrical and electronics (compared to declines in West Surrey).
- Average salary £40k–£55k.

Workforce Insights:

- Strong male dominance (85–95%).
- Age profile skewed mid-career; low early-career intake.
- Education: mix of degree-level and technical/HNC-HND qualifications.

Implications for Defence:

- Core to **manufacturing, maintenance, and next-gen defence platforms** (aircraft, vehicles, weapons systems).
- Succession planning and **technical upskilling** vital.

Engineering Technicians & Supervisors

Scale and context:

- Technicians: 1,201 jobs; Supervisors: 630 jobs.
- East Surrey driving technician growth; West Surrey key for supervisory roles.
- Average salary: £34–35k.

Workforce Insights:

- Age skewed toward mid- to late-career; limited entry-level pipeline.
- High proportion of roles require no formal education; experience is key.
- Supervisors act as bridge between trades and engineering managers.

Implications for Defence:

- Essential for **production, assembly, and maintenance of defence hardware**.
- Highlights need for **skills bootcamps, apprenticeships, and progression pathways**.

Key themes from the data

➤ Sector composition and scale

- Defence-related activity spans **aerospace, electronics, IT, cyber, mechanical/electrical engineering**, and advanced manufacturing.
- Surrey hosts a **concentration of firms and jobs** in these sectors compared to national averages.
- Work is **geographically clustered**: West Surrey (aerospace, electronics, IT, cyber) and East Surrey (technicians, engineering support).

➤ Workforce profile

- **Predominantly mid-career technical workforce** (25–44 years). Limited early-career entry (16–24: 5–12%).
- **Gender imbalance**: majority male, particularly in engineering and technical trades; slightly more balanced in IT and data roles.
- Declining trends in several occupations since 2019 highlight **replacement demand risks**.

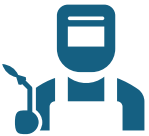
➤ Skills gaps and recruitment pressure

- **Technical roles** (cyber, software, aerospace, electronics, mechanical, electrical) critical but under pressure.
- **Early-career pipeline weak**: limited school leaver or FE entrants; apprenticeship and pre-employment pathways need strengthening.
- **Senior and supervisory roles** are highly dependent on experienced mid-career professionals → succession planning is critical.

➤ Strategic market context

- Surrey-based businesses will **serve regional, national, and international defence markets**, underpinning high demand for local skills.
- The sector is **cross-cutting and hard to define**, but occupational proxy analysis shows Surrey is well-placed to support frontier industries (combat air, drones, complex weapons, cyber).

Implications for skills and workforce interventions



1. Early-career and pipeline development

Expand **apprenticeships, Skills Bootcamps, and FE/HE pathways** targeting technician and junior engineering roles.

Careers Hub engagement with schools, teachers, and careers leaders to improve awareness of defence-related careers.

Summer academies and pre-employment programmes to attract school leavers into trades and technical roles.



2. Higher-level technical and leadership development

Develop **progression pathways from technician → professional → management**, especially in IT, aerospace, and engineering.

Upskill **senior technical roles** through targeted HE/FE programmes and employer-led training (e.g., system architects, project leads).



3. Digital, Cyber & Advanced Technical Skills

Enhance **cybersecurity, software development, IT operations, and data analytics** capability across the workforce.

Integrate **emerging technologies** (AI, autonomous systems, defence electronics) into FE/HE curriculum and on-the-job training.



4. Employer Collaboration and sector Coordination

Host **regular sector forums and sub-sector working groups** to align skills provision with business demand.

Co-design curriculum and progression pathways with employers to **ensure relevance and responsiveness**.

Life Sciences LMI profile

Life Sciences employment in Surrey stands at 1,727 **jobs** (1,026 in **West Surrey**; 701 in **East Surrey**) and saw significant decline between 2007 and 2009, with a slight upward trend since then. The sector has seen a 36.4% **growth in jobs since 2019** and sits **around 24% below the national average** in 2026, indicating under-representation compared to the national picture (based on Lightcasts grouping of SOC codes). Average pay across the sector is relatively strong at **£53.9k (compared nationally £43.4k)**, reflecting the concentration of highly skilled roles.

Sector overview

Demographics:

- Nationally, the workforce is relatively gender-balanced (53.9% male / 46.1% female), particularly compared to other STEM sectors. However, the age profile shows limited early-career participation (6.3% aged 16–24), with employment concentrated in core working-age groups (25–54 accounts for over 80%). This suggests moderate future replacement demand pressures and highlights the importance of strengthening early entry pathways into scientific and technical roles.

Occupations:

- Employment reflects a blend of scientific research, digital capability, regulated manufacturing, and commercial functions. The largest occupational groups are Production Managers and Directors in Manufacturing (4.5%), Programmers and Software Development Professionals (4.5%), Biochemists and Biomedical Scientists (4.3%), Biological Scientists (3.9%), and Sales Accounts and Business Development Managers (3.5%).
- This structure demonstrates that Surrey's Life Sciences sector is not solely laboratory-based. It integrates R&D, digital systems development, advanced medical manufacturing, and commercialisation activity. The prominence of software roles highlights increasing convergence between life sciences and digital technologies, particularly in data-driven research and medical innovation.

Sub-sectors:

- The largest sub-sector is Research and Experimental Development on Biotechnology (636 jobs), heavily concentrated in West Surrey (570 jobs), confirming a strong bioscience R&D cluster.
- Manufacturing activity is more geographically split. Manufacture of Irradiation, Electromedical and Electrotherapeutic Equipment (568 jobs) is concentrated in East Surrey (463 jobs), signalling a significant and fast-growing medical devices cluster. Manufacture of Medical and Dental Instruments and Supplies (290 jobs) is distributed across both areas, while pharmaceutical manufacturing remains smaller in scale and primarily West-based.

Sub-sectors and Occupations analysed

Sub-sectors:

- Manufacture of basic Pharmaceutical products
- Manufacture of Pharmaceutical preparations
- Manufacture of Irradiation, Electromedical and Electrotherapeutic Equipment
- Manufacture of Medical and Dental Instruments and Supplies
- Research and experimental development on biotechnology

Occupations:

- Production Managers and Directors in Manufacturing
- Programmers and Software Development Professionals
- Biochemists and Biomedical Scientists
- Biological Scientists
- Laboratory Technicians
- Quality Assurance and Regulatory Professionals
- Chemical Scientists

Key themes from the data

➤ Sector composition and scale

- Life Sciences activity spans biotechnology R&D, laboratory science, pharmaceuticals, medical devices, and electromedical/electrotherapeutic equipment manufacturing.
- Surrey hosts a significant cluster of life sciences firms, though total employment is below the national average (1,727 jobs; –24%), with strong growth in certain sub-sectors:
 - Biotechnology R&D (+52% above national average)
 - Electromedical & electrotherapeutic equipment (+108.8% growth since 2019)
 - Medical and dental instruments (+65% below national average, but +23–70% growth since 2019)
- Geographical clustering is notable: West Surrey dominates biotechnology R&D and high-value pharmaceutical preparation; East Surrey is emerging as a hub for electromedical devices and medical instruments.

➤ Workforce profile

- Gender balance is relatively even: 46% male / 54% female.
- Age profile weighted towards early- and mid-career groups (25–44: 57.5%), with smaller numbers of older workers (55+ 12%) — indicating some replacement demand risk in senior roles.
- Early-career pipeline exists, particularly for laboratory technicians, but is limited in management-heavy roles (e.g., production managers).

➤ Skills gaps and recruitment pressure

- High demand for technical and specialist roles: biochemists, biomedical scientists, biological scientists, laboratory technicians, chemical scientists, production managers.
- Digital, automation, and regulatory skills increasingly important across laboratory, production, and R&D roles.
- Senior/leadership roles concentrated among mid-to-late career professionals → succession planning and management development critical.
- Recruitment and retention pressures particularly acute in high-value growth sub-sectors (electromedical equipment, biotechnology R&D).

➤ Strategic market context

- Sector growth is innovation-led, highly regulated, and technically intensive, meaning workforce quality and specialised skills are critical to maintaining competitiveness.
- Overlap with IT, digital systems, and advanced manufacturing suggests opportunities for **multi-disciplinary skills development** and cross-sector collaboration (lab automation, data analysis, quality control).

Implications for skills and workforce interventions



Early-career pipeline development

Need to strengthen entry pathways for laboratory technicians, scientists, and production managers.

Potential approaches: apprenticeships, lab technician traineeships, Skills Bootcamps, university partnerships, STEM school engagement.



Technical and Specialist Skills

High demand for biochemists, biomedical scientists, biological scientists, chemical scientists, and process engineers.

Emphasis on digital literacy, lab automation, regulatory compliance, quality assurance, and advanced manufacturing techniques.



Leadership and management capacity

Production Managers and Directors are mid-to-late career-heavy; succession planning and leadership development are critical.

Focus on transferable skills for operational management across high-growth sub-sectors (biotech, medical devices).

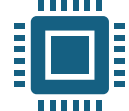


Geographic targeting and cluster support

West Surrey: consolidate biotech R&D and advanced pharmaceutical capabilities.

East Surrey: support scaling of electromedical and electrotherapeutic manufacturing.

Interventions should consider local skills pipelines aligned to cluster needs.



Cross-sector opportunities

Overlap with IT (lab automation, software development) and advanced manufacturing (electromedical devices) suggests synergies for multi-disciplinary skills development.

Collaboration between universities, FE colleges, and industry can address emerging technology skill gaps.