THE SCOTTISH LIFE & CHEMICAL SCIENCES SKILLS SUMMIT 2025

Skills for Innovation

Report written by Prof Claire Garden
Edinburgh Napier University

Foreword by Dr Yvonne Bayne, Fife College

The Scottish Life and Chemical Skills Summit (Skills Summit) organisation was led and hosted by Fife College with support from Skills Development Scotland (SDS), Edinburgh Napier University (ENU) and the Scottish Universities Life Sciences Alliance (SULSA). It was the inaugural event at the Carnegie Conference Centre on Fife College's newly built Dunfermline City Campus: a first-class, sustainable learning environment designed to build on existing partnerships, develop clear learner pathways, and support the growth of skills that will help rebuild the economy. The campus features industry-standard workshops, alongside immersive learning and skills-training zones that are relevant, ambitious, and sector-leading for the local economy, ensuring that the facilities set a benchmark for modern, future-skills-focused education.

Our grateful thanks go to all members of the steering group as well as to the Life and Chemical Sciences (LCS) Skills Group and the SULSA Skills Committee for their support in developing the skills summit, and for their attendance, engagement and participation on the day.

This report summarises the outcomes from the event, which we hope will continue to develop collaboration and inform future planning, investment and policy making in the interests of accessing the opportunities it helps to identify.

"A highly skilled, adaptable workforce is fundamental to Scotland's ambitions for innovation-led, sustainable economic growth. Since the inaugural Life and Chemical Sciences Skills Summit in 2023, partners across industry, education and government have continued to work together to address skills needs, align provision with demand and support productivity."

Dr Yvonne Bayne, Health & Life Sciences Partnership Manager (Industry Engagement), Fife College

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Executive Summary

The Scottish Life and Chemical Sciences Skills Summit 2025 brought together leaders from industry, further and higher education, public agencies and skills bodies to address current and future workforce needs in one of Scotland's most strategically important sectors. Hosted by Fife College at the Carnegie Conference Centre, Dunfermline City Campus, the Skills Summit built on strong existing partnerships and provided a national platform for collaboration, foresight and collective action.

Scotland's Life and Chemical Sciences sector is internationally competitive, with ambitious growth targets set out in the Life Sciences Strategy for Scotland 2035 Vision, skills development and talent attraction are recognised as critical enablers of future success. Forecasts indicate workforce growth significantly above the Scottish average, creating urgency around addressing skills gaps, curriculum reform, work-based learning and empower engagement.

The 2025 Skills Summit reviewed progress since the inaugural 2023 Skills Summit and demonstrated tangible achievements delivered through collaborative working despite a challenging funding environment.

The Skill Summit focused on three interlinked themes shaping future skills demand:

Theme	
Sustainability and Net Zero Skills	As the sector responds to Net Zero commitments, regulatory change and environmental responsibility, sustainability skills are now core business requirements. Skills gaps were identified in Environmental. Social and Governance regulation, digital and data capabilities for reporting and intervention design, engineering skills for low-carbon technologies, and leadership that embeds sustainability as a driver of innovation and growth. Participants emphasised the need to integrate real-world sustainability challenges into education and training at all levels.
AI, Data and the World of Work	AI and data-driven technologies are rapidly reshaping research, manufacturing and healthcare. The Skills Summit highlighted the need for foundational AI and data literacy across the workforce, alongside advanced skills for specialist roles, and strong governance, within highly regulated environments and ethical frameworks. Interdisciplinary approaches and shared case studies were identified as essential to meaningful skills development.
Collaboration and Innovation	Sustained collaboration between industry, education and the public sector remains fundamental to addressing skills challenges and driving innovation. Contributions from Innovate UK illustrated how structured funding mechanisms can support skills development, applied research and knowledge transfer.

Participants identified priority actions for the next phase, including expanded work-based learning opportunities, enhanced placements and live projects and strengthened apprenticeship and graduate pathways (including Graduate Apprenticeships).

The 2025 Skills Summit reinforces a shared commitment to developing the skills, pathways and partnerships needed to maintain Scotland's global competitiveness in Life and Chemical Sciences through to 2035 and beyond.

Introduction

Scotland's Life and Chemical Sciences sector is thriving. With research activity above the global average, on par with China and the US[1] and strengths and opportunities in advanced manufacturing, life sciences and clean energy solutions including Industrial Biotechnology[2], we are also home to strategically important assets. For example, Edinburgh's new supercomputer is the largest in the UK.

It therefore comes as no surprise to learn that the Scottish Life Sciences sector contributes over £10.5bn turnover to the economy, supporting more than 46,000 jobs[3]. The sector also makes a major contribution to the Scottish Government's Net Zero ambitions[4] through Industrial Biotechnology.

Indeed, the new National Plan for Industrial Biotechnology is aligned to the new Life Sciences Strategy for Scotland 2035 Vision, which sets out a target to achieve £25bn contribution by 2035[5]. Sector workforce skills will underpin this growth and support delivery of the strategic aims of Scotland's National Innovation Strategy[6], with workforce development and talent attraction identified as a requirement. Recent SDS sectoral skills forecasting suggests that Scotland's life sciences workforce will grow by 4.7% between 2025-28, and by 9% between 2028-2034, more than double the Scottish average. The top employing regions are identified as Edinburgh, East and Midlothian and Glasgow College Regions[3].

Progress Report

Scotland's world-leading Life and Chemical Sciences sector is internationally recognised for the excellence of its highly skilled workforce[3]. Nonetheless, skills gaps exist, and one of the purposes of the Skills Summit is to ensure that those gaps are identified, recognised and addressed in a way that works for the needs of the sector and employers. The first Scottish Life and Chemical Sciences Skills Summit was held in September 2023, with 80 participants considering two priority areas: the work readiness skills of new entrants to the sector, and the importance of collaborative working between industry and tertiary education.

Planning led by Skills Development Scotland ensured that the Life and Chemical Sciences Skills Group, together with the SULSA Skills Committee, has been able to deliver progress

against the recommendations from the 2023 Skills Summit[7]. We highlight four key achievements despite significant funding constraints across the skills landscape which continue to have significant impact.

1. **Establishment of Priority Groups within the Life and Chemical Sciences Skills Group**: which help to increase awareness and understanding of the sector among young people and influencers, increase collaboration between industry and academia, consider regional and thematic opportunities and skills needs and create educational pathways for the sector.

2. **Future Skills Frameworks in the Life Sciences**: SULSA-sponsored event at the University of Glasgow in June 2025 brought together academics, careers professionals, undergraduate students, graduate students and industry representatives to address two key areas: best practice in creating skills frameworks and enhancing industry alignment of skills frameworks. The resulting ten recommendations will form focus of a follow up event, at which attendees will consider ways in which they might be implemented.

3. **Graduate Employability Masterclasses (GEMs) Future:** has been safeguarded via the SULSA Skills Committee which created regional clusters in Scottish universities that address the specific industry skills needs of those regions. More than 300 students participated in GEMs during 2024-2025, learning about the industry life cycle, highlighting different career opportunities across the life sciences sector, and starting to build professional networks

4. **Employer Animation**: created by Skills Development Scotland on behalf of the LCS Skills Group to address the need for better signposting around the complex sector skills

ecosystem for all participants. An **open access GLP video training resource** created by Edinburgh Napier University and Charles River Laboratories commissioned by Skills Development Scotland. This pilot project addressed the high priority skills gap by creating a freely available GLP training workbook and accompanying Quality Control video. The resource also provides authentic learning experience for students by giving access to an otherwise closed and regulated industry space in the context of a shortage of placements.

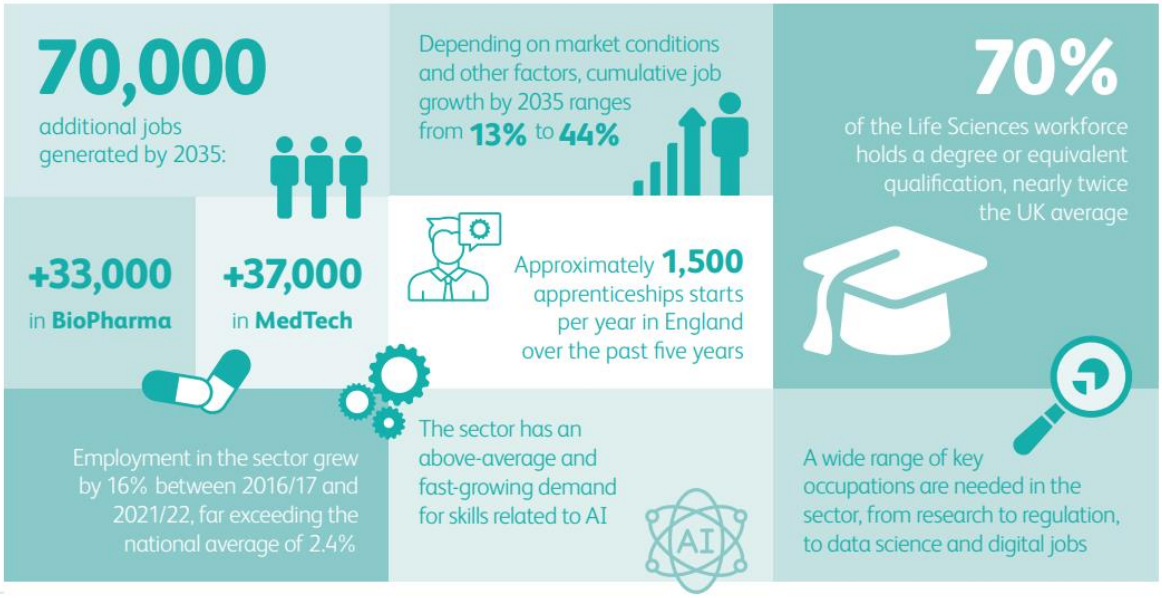
Events like the Skills Summit will continue to build the pathways and connections needed to keep the sector pushing forward in its efforts to keep up with the demand for new and improving skills.

> *"We know there is a need for continued collaboration between tertiary education providers, industry and public sector bodies if we are to meet the skills challenges facing the Life and Chemical Sciences sector – both current and emerging. The Life and Chemical Sciences Skills Group will continue to prioritise actions and opportunities that will have the most significant impact in addressing that need."*
>
> **Prof Claire Garden, Associate Dean of Teaching and Learning at the School of Applied Sciences, Edinburgh Napier University**

2025 Scottish Life and Chemical Sciences Skills Summit

The 2025 Skills Summit aimed to use the already significant collaboration that exists across the sectors to synthesise and respond to recently published plans including:

- The UK Modern Industrial Strategy's Life Sciences Sector Plan[8]
- The Life Sciences 2035 Developing the Skills for Future Growth[9]
- InnovateUK Workforce Foresighting Hub reports[10]
- Life Sciences Strategy for Scotland 2035 Vision[5]



Source: Life Sciences 2035: Developing the Skills for Future Growth (Cogent) This data very much mirrors what we see in Scotland: a growth forecast in the job market and the need for new and developing skills, particularly in AI and digital.

With 78 registrants from nine universities, six colleges, sixteen companies and sixteen public sector organisations/ government bodies, the 2025 Scottish Life and Chemical Sciences Skills Summit offered a cross-sectional view of the sector's skills status and needs, culminating in a workshop session which allowed all participants to contribute to the development of future planning by identifying concerns and needs. The results of that session are reported in more detail on page 13. It's clear from the representation and participation on the day that there is a healthy appetite for collaboration, and that this Skills Summit is already proving a useful platform where partnership opportunities can be identified, information and expertise can be shared, and where educators, industry representatives, employers and practitioners can meet to help shape the future of skills in our sector.

The 2025 Skill Summit focused on three crucial areas likely to impact skills development in the immediate future as identified in recently published plans:

- The importance of sustainability and the skills needed to support it
- Emerging requirements for AI and data skillsets in Life and Chemical Sciences
- The continued importance of collaboration, supported by funding, to ensure we continue to proactively develop and support skills and training across the sector

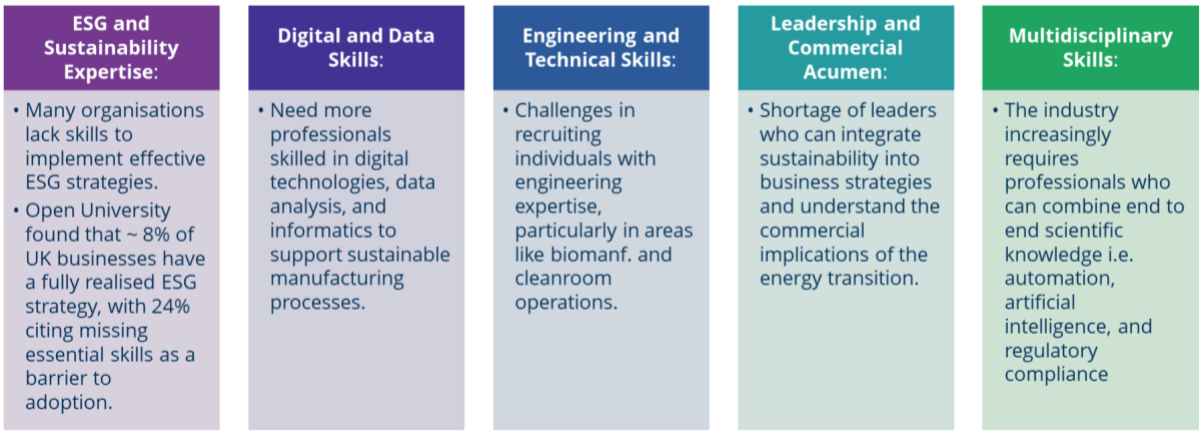
We identify and suggest answers to the challenges of ensuring the existing and future workforces are equipped to meet the constantly evolving skill sets the sector demands.

Theme 1: Focus on Sustainability: Driving Change in the Sector

As the world moves towards Net Zero targets and more sustainable pipelines, the workforce will need to be equipped with the knowledge and skills to ensure a just transition. Not only do we need skills for sustainability but upskilling of workforces working in harmful industries[4]. These skills expand beyond life and chemical sciences and show the breadth and depth of skills needed for a thriving Life and Chemical Sciences sector in an ever-evolving world. Deborah McElhone, Head of Sustainability Pharma at the Centre for Process Innovation (CPI), examined the drivers for change and how influences like regulatory and investor pressure, corporate responsibility and reputation, economic impact, innovation and global sustainability goals drive sustainability efforts.

The Healthcare sector accounts for 4.4% global greenhouse gas emissions, with 40-50% attributed to energy use. Scope 3 emissions are 4.6 times higher than scope 1 and 2 emissions meaning that emissions from purchased goods, transport and distribution, waste and product use are significant. Today the most effort is being placed into realising NHS 2030 carbon ambition by focusing on scope 1 and 2 emissions such as renewable energy/ heat, wastewater and circularity/ waste & procurement. However, this focus must change to scope 3 emissions and incorporate technology and process design if the sector is to meet its longer-term goals.

The increasing momentum of sustainability regulation and documentation being applied across all industries, and the Scottish Life Sciences Sector and NHS Scotland commitments to Net Zero are the main areas likely to deliver the biggest impact in achieving sector commitments. Over the past five years there has been rapid development of the regulatory landscape within the Life and Chemical Sciences Sector, most recently seeing the introduction of reporting standards through the Corporate Sustainability Reporting Directive, and the PFAS plan by DEFRA as a result of HSE's Rolling Action Plan for UK Registration, Evaluation And restriction of Chemicals (REACH).



Source: CPI

Sustainability skills gaps identified in Scotland's life sciences sector include:

- Understanding of Environmental, Social and Governance (ESG) regulations to accelerate strategy development, implementation and monitoring
- Digital and data skills needed to keep up with advancement of digital tools to maintain reporting requirements and identify new impactful interventions
- Engineering skills required for new innovate technologies
- Leaders who fully understand that sustainability is more than carbon reporting and is core to business

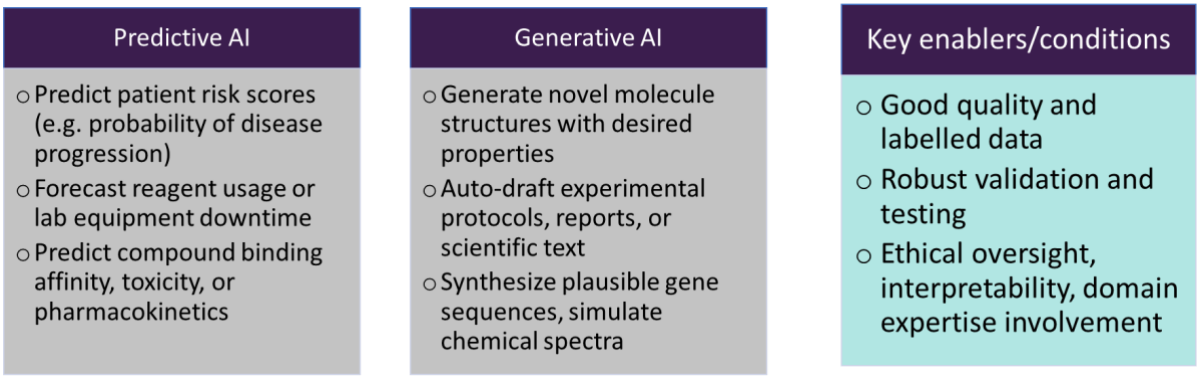
During the following panel discussion participants (**Appendix 3**) considered ways to embed industry-relevant sustainability and AI challenges and case studies into the curriculum, learning from the practical examples shared by industry and education panel members. It is very clear that sustainability should now be at the heart of the Life and Chemical Sciences industries, who should be striving to weave into every department and area of business.

"Skills will define success. To deliver real change we need to upskill people to understand ESG, data, digital tools and engineering innovation, and we need leaders to place sustainability as central to business growth."

Deborah McElhone, Head of Sustainability Pharma, CPI

Theme 2: Focus on AI and the World of Work

Nuria Fraile-Diaz, Digital Learning & Development Manager at The Data Lab, shared insights into AI in the workplace, defining AI and describing dependencies on data and machine learning.



Source: The Data Lab

Case studies for the use of AI across the sector include predictive AI in drug discovery to screen libraries of compounds, and in personalised medicine to support diagnostics and tailor treatments. In lab automation, AI may manage high-throughput experiments, track data quality, and detect anomalies. However, it is important to highlight the need for human skills for quality assurance and to safeguard data security.

There is a cross-sector need for a foundational understanding of AI and machine learning that goes alongside data literacy. Especially important for healthcare applications are ethics and governance to help understand bias, fairness, and accountability. The sector also needs people who know how to use AI-enabled software and work with data specialists, and those with meta-skills like curiosity, adaptability, and critical thinking that will keep the sector learning as technology evolves. The Life and Chemical Sciences is highly regulated and safety is critical. This means we must place additional emphasis on validation, interpretability, audit trails, and documentation. Our AI models should be transparent and scrutinized—black-box models without explanation are often not acceptable in life / chemical sciences because of the risk of bias and our high ethical standards.

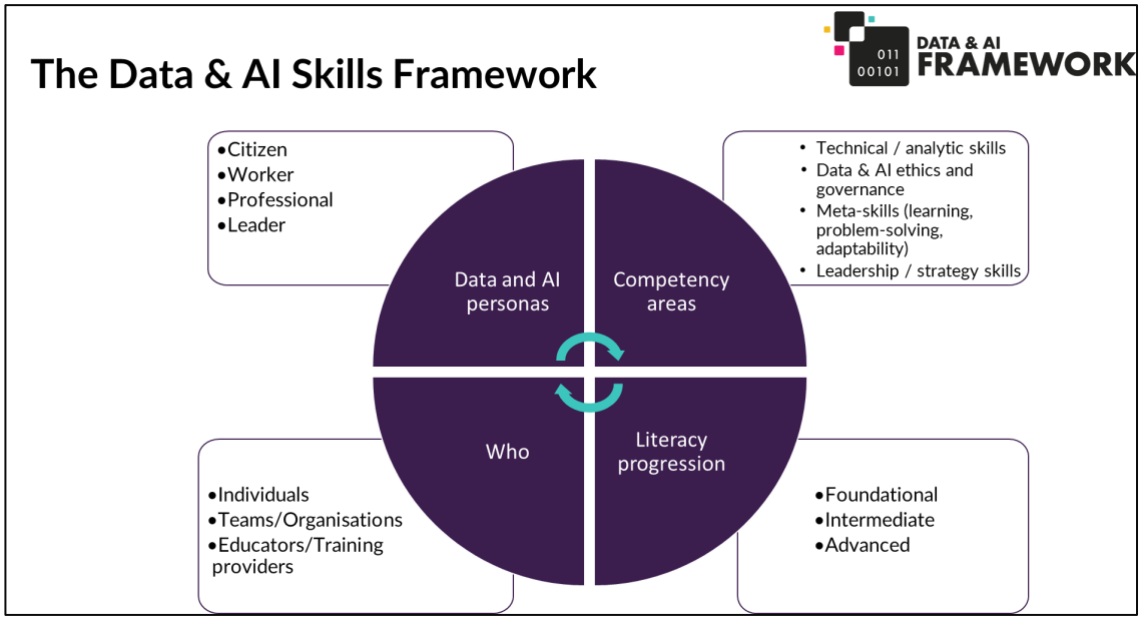
The Data Lab has developed a Data and AI Skills Framework[11] to support understanding and development. The four personas can be mapped to roles in the Life and Chemical Sciences which can help uncover skills gaps and identify relevant training for their role or to support movement to the next level:

- **Data & AI Citizen (Foundational Level):** Represents individuals with foundational-level data and AI skills. This persona focuses on basic data literacy, understanding, and awareness, enabling them to engage with data in a general capacity.

- **Data & AI Worker (Intermediate Level):** Individuals at this level have intermediate data and AI competencies, capable of applying these skills practically within their specific job roles.

- **Data & AI Professional (Advanced Level):** These are individuals with advanced competencies, likely working directly with data or AI technologies in technical or analytical roles.

- **Data & AI Leader (Strategic Level):** Defines individuals with strategic-level data and AI skills, focusing on driving AI adoption, setting data strategy, and leading transformation within their organisation.



Source: The Data Lab

For example, Lab Technicians and Instrument Operators are likely to map to the Worker persona and need more data literacy and tool fluency, with Research Scientists, Bioinformaticians, Computational Chemists mapping onto the Professional persona, requiring deeper AI understanding on the quality of data inputs, assumptions made by the models being built and how these could translate to biases in the outputs from AI-led analyses. Principal Investigators and Heads of Department map onto the Leader persona and are more likely to be concerned with ethics, governance and strategy.

As experts in AI and Data Science, The Data Lab recommends the following call to action:

- Explore The Data Lab's programmes, courses, community (e.g. Data Skills for Work)
- Use the Skills Framework: self-assess your persona and identify priority gaps
- Start small—pilot projects / data challenges / AI "sandboxes" in your lab or team
- Encourage interdisciplinary collaboration (Professional area/ Discipline + Data)
- Advocate for ethical oversight, governance, and transparency from the start
- Plan regular reviews: AI and data skills evolve fast, so revisit your roadmap

Panel discussions (**Appendix 3**) highlighted the different ways that industry and education are navigating AI and showed that principal concerns around AI adoption are quite different between industry and tertiary education, and that levels of literacy vary. For example, predictive vs generative AI differences were not initially appreciated by the whole audience. Significant concerns about the environmental impact of AI were also discussed, demonstrating that energy and emission considerations mean that skills should not be taught in silos but rather interdisciplinarity should be at the core of addressing skills needs.

Continued sharing of AI experiences from different organisations will help to develop relevant case studies for inclusion in the curriculum and upskilling colleagues although a lot of work is still needed to understand how generative AI can be embraced in a sustainable way. We need to develop a mechanism whereby experts can provide practical advice, given the complexity of this issue.

> *"Rather than replacing expertise, AI allows us to focus on deeper analysis and creativity. It always needs human purpose and oversight. It doesn't decide its goals: we do."*
>
> **Nuria Fraile-Diaz, Digital Learning and Development Manager, The Data Lab**

Theme 3: Focus on Driving Innovation Through Collaboration

Having mentioned the need for interdisciplinarity and cross-sectoral skills above, it is obvious that collaboration is needed to drive innovation forward. Robert Martin, Manager for Scotland at Innovate UK described how his organisation funds innovation and productivity in the UK through connecting UK academia and businesses, driving the Life and Chemical Sciences sector forward. A number of programmes already exist, such as:

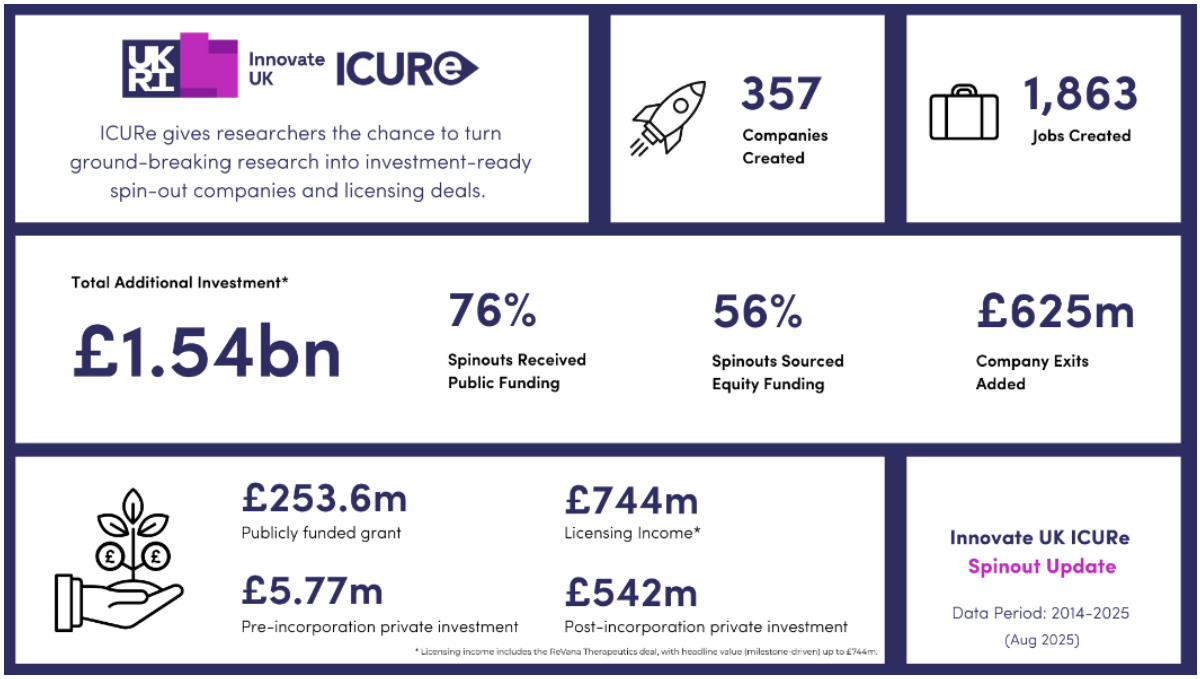
- RESILIENCE, a UK-wide Centre of Excellence in medicines manufacturing skills that offers national and coordinated training focused on sector-critical technical and leadership skills, and the Industry Skills Accelerator complements RESILIENCE, connecting SMEs with training opportunities, and allowing them to feed training needs back to the skills network.

- Knowledge Transfer Partnerships (KTPs) are structured collaborations between universities or research organisations, companies or non-profit organisations and graduate or postgraduate students. These are important opportunities for funding, offering access to world-class research and guidance to solve innovation challenges,

opportunities to turn research into real-world impact and launch careers by working on cutting-edge projects.

- the [Further Education Innovation Fund] facilitates business access to the expertise, skills, facilities, and knowledge of Further Education Colleges, and Future Leaders Fellowships help establish the careers of world-class research and innovation leaders.

Businesses based in Scotland requiring support to engage with Innovate UK opportunities are supported by [Scottish Enterprise].



Source: Innovate UK ICURe

> *"Innovate UK, as part of the UK Research and Innovation (UKRI), is publicly funded to drive innovation and productivity across the UK, curating pathways to accelerate start-up and spin-out growth and help the community of incubators and accelerators to increase collaboration and collective impact."*
>
> **Robert Martin, Manager for Scotland, Innovate UK**

Discussions in the final session of the day opened the floor to all participants, inviting their views on three questions focused on ways to support further industry-tertiary (and public sector) collaboration, which participants agreed is key to moving forward:

1. **What are the priority skills needs that should be addressed by a collaborative funding approach in the sector?**

2. **What funding opportunities would your organisation be keen to be involved in and what could your support look like?**

3. **What needs to happen next to drive forward any opportunities for collaborative funding?**

Previous sessions highlighted the need for connectivity, interdisciplinarity and a sense of collectivism to truly drive the Life and Chemical Sciences industry forward and ensure Scotland maintains its position as a global player. Workshop participants embraced this idea by working in groups mixed with representatives from further and higher education, industry and the public sector who recognised the importance of the triple helix in addressing skills gaps and futureproofing one of Scotland's leading industries.

Discussions around priority skills highlighted the need for **inter-disciplinary and cross-sector working** to solve challenges that emerge from the application of non-traditional Life and Chemical Sciences innovations and skills such as robotics, engineering, sustainability and AI/ data into the sector. It became clear that more joined up working between all relevant sectors is needed, focusing on **interdisciplinary and meta skills**. We must keep working together across industry, tertiary education and the public sector to recognise important skills and put in place opportunities to collaborate on these. Participants would welcome facilitated sessions focussing on collaborative funding applications to address these.

Local, regional and national challenges were addressed including how to "**scale-up" good practice** and identify where national programmes would realise greater benefit than siloed activity. Many responses and suggestions underlined the requirement to continue to find ways to implement outstanding recommendations from the previous Skills Summit[7] in order to deliver skills improvements and ensure that the skills base remains responsive and future oriented. In particular, participants were keen to focus on those that facilitate collaborative provision or applied curriculum development including:

- Review, plan and deliver targeted, extended pathways encompassing colleges and universities including Graduate Apprenticeships *(builds on 2023 recommendation 14)*.

- Develop a mechanism for industry training recognition through tertiary certification or accreditation (*builds on 2023 recommendation 1*).

- Collaborative mentoring programme and/or improved signposting to existing relevant mentoring programmes (*2023 recommendation 6*).

- Enhanced placement and internship opportunities (*builds on 2023 recommendation 9*).

- Continue to explore funding opportunities to secure the future of the Graduate Employability Masterclass (GEM) (*builds on 2023 recommendation 4*).

- Extend or replicate successful SSERC 'train the trainer' programmes currently delivered to school teachers to include tertiary educators *(builds on 2023 recommendation 11*).

- A centralised bank of case studies, live projects and co-designed teaching scenarios that is accessible to the sector to support sharing of best practice and applied teaching (*builds on 2023 recommendation 10*).

Participants were invited to share the actions they would take forward as a result of their day's learnings. Contributions included:

"I will survey recent graduates and apprentices for their feedback on skills, with particular focus on AI and sustainability."

"I will try to incorporate sustainability into teaching."

"Think out of the box more when looking at what our workforce needs and how to support this through collaboration"

Next Steps: A Plan for the Future

Our recommendations suggest ways to deliver on the Life Sciences Strategy for Scotland 2035 Vision (2025) skills priorities, namely '...updating apprenticeship frameworks, refining college and university curricula, expanding work-based learning, and increasing access to internships and mentoring.' in the identified key areas of AI and Data, sustainability and NHS/ four nations approach.

We therefore recommend support and coordination of the following:

1. Life and Chemical Sciences Skills Group priorities including continued implementation of key recommendations from 2023 Skills Summit, particularly those that provide focused opportunities for collaboration:

    a. Freely available and relevant, applied case-studies to support learning especially those focusing on AI, Data and Sustainability skills.
    b. Re-examination of apprenticeship models, including assessing demand for a Graduate Apprenticeship pathway.
    c. A larger, consolidated, internship and active, real-world ('live') project offer.

2. Implementation of existing sustainability & AI/ Data frameworks into existing Life and Chemical Sciences tertiary curricula, including moving beyond basic literacies and applying core scientific skills such as critical thinking into an interdisciplinary focus on:

    a. Environmental, Social and Governance (ESG) regulations
    b. Ethical oversight, governance, and transparency of AI use
    c. Digital and data skills that intersect with sustainability goals and interventions
    d. Engineering skills for new innovate technologies
    e. Sustainability for Business
    f. The Data Lab's Skills Framework, programmes, courses and community

3. New, scalable opportunities for applied learning that leverages infrastructure (e.g. innovation centres) and regional investments to provide national solutions and a mechanism to propagate good practice across the sector. E.g. funded teaching and learning packages associated with key infrastructure accessible to many different education providers regionally and nationally.

> *"Lots of great work in certain localities, how do we nationalise?"*
>
> **2025 Skills Summit Participant**

Conclusion

In conclusion, the 2025 Scottish Life and Chemical Sciences Skills Summit demonstrated both the progress made since 2023 and the scale of opportunity ahead. Continued collaboration, targeted investment and coordinated action are essential to ensuring Scotland's Life and Chemical Sciences workforce remains skilled, adaptable and globally competitive, supporting sustainable growth through to 2035 and beyond.

Fife College, together with Edinburgh Napier University, Skills Development Scotland and the Scottish Universities Life Sciences Alliance, would like to thank the steering group, the Life and Chemical Sciences (LCS) Skills Group and the SULSA Skills Committee for their support in developing the 2025 event.

Our sincere thanks also go to everyone who took the time to attend, contribute and share their suggestions. Your participation is vital in shaping the skills resources our sector needs and laying the foundations for a future where the skills pipeline continues to flourish and grow. This makes it more important than ever that we continue to work together to ensure our current and future workforce has the skills required for the sector to continue to grow and thrive.

> *"Keep talking to employers and other universities. Keep working to recognise important skills and looking for opportunities to collaborate on these."*
>
> **2025 Skills Summit Participant**

References

[1] Elsevier – Scottish Research & Innovation Dashboard

[2] UK Government - UK's Modern Industrial Strategy

[3] Skills Development Scotland – Sectoral Skills Assessments

[4] Net Zero Nation – Scotland's Plan

[5] Scottish Government – Life Sciences Strategy for Scotland 2035 Vision

[6] Scottish Government – National Strategy for Economic Transformation (NSET)

[7] SULSA – 2023 Life and Chemical Sciences Skills Summit Report

[8] UK Government- UK Modern Industrial Strategy Life Science Sector Plan

[9] Life Sciences 2035 Skills for Future Growth

[10] Innovate UK Workforce Foresighting Hub Reports

[11] The Data Lab – 2025 Data & AI Skills Framework

Resources

- Data Skills for Work
- Further Education Innovation Fund
- Industry Skills Accelerator
- Knowledge Transfer Partnerships
- Life Sciences Strategy for Scotland 2035 Vision - Life Sciences Scotland
- Life Sciences 2035: Developing the Skills for Future Growth - Main report
- life Sciences Sector Plan
- RESILIENCE
- Scottish Enterprise
- Scottish-Life-and-Chemical-Science-Skills-Summit-Report.pdf
- Sectoral Skills Assessment Chemical Sciences 2025
- Shaping the Future of Skills: Insights from the Workforce Foresighting Hub Workshops - Innovate UK Business Connect
- 2025 Data & AI Skills Framework - The Data Lab

- The UK's Modern Industrial Strategy

Appendix 1: Additional Information

About the Organisers

Fife College

Fife College has extensive experience working in partnership with employers across the life sciences sector to support skills development and workforce upskilling. The College delivers industry-aligned training in laboratory sciences, biotechnology, applied biology, and quality-related disciplines through HNC/HND programmes, apprenticeships, short courses, and bespoke employer-led provision. With specialist laboratory facilities and strong links to regional and national stakeholders, Fife College supports the development of practical laboratory skills, quality awareness, and career-ready talent, enabling progression into employment or onward study within the life sciences sector.

Contact: Dr Yvonne Bayne, Health & Life Science Industry Partnerships Manager yvonnebayne@fife.ac.uk

Edinburgh Napier University (ENU), School of Applied Sciences

Edinburgh Napier University (ENU) has more than a decade of experience working collaboratively with companies such as Merck, Charles River, Mentholatum and TMQA on skills development in the sector, as well as developing major national skills projects covering laboratory skills, quality assurance and graduate readiness in partnership with a range of key stakeholders. ENU is the only Scottish University to be involved in the large cross sector upskilling consortium of the Advanced Therapies Skills Training Network (ATSTN).

Contact: Prof Claire Garden PFHEA MRSB, Associate Dean, Teaching and Learning School of Applied Sciences, C.Garden@napier.ac.uk

Skills Development Scotland (SDS)

Skills Development Scotland (SDS) is the national skills body supporting the people and businesses of Scotland to develop and apply their skills. The Key Sector Manager for Life and Chemical Sciences work on behalf of industry to inform and influence the skills landscape to ensure employers have access to the right people with the right skills at the right time.

Contact: Sarah Hunt, Key Sector Manager-Life and Chemical Sciences Sarah.Hunt@sds.co.uk

Scottish Universities Life Sciences Alliance (SULSA)

SULSA is an alliance of twelve Scottish universities and one research institute that aims to advance Scotland's research and innovation in the life sciences through strategic collaboration

across institutions, disciplines and sectors. SULSA focuses on increasing research funding into Scotland, supporting post-graduate development and improving the international standing of our life sciences research sector. SULSA is experienced in delivering externally funded projects including those that facilitate demand-led skills programmes co-designed and delivered by industry and educators.

Contact: Dr Ally Hughes, Executive Director, Scottish Universities Life Sciences Alliance (SULSA), Alison.Hughes@glasgow.ac.uk

About the Strategic Groups

- **Life and Chemical Sciences Skills Group**

  The Life and Chemical Sciences (LCS) Skills Group is a sub-group of the Life Sciences Scotland Industry Leadership Group. The group is co-chaired by Karen Tait and Ayaskant Pany (IQVIA Laboratories), secretariat support is provided by Sarah Hunt (SDS), and it is comprised of industry, academia, public sector agencies and sectoral stakeholders' representatives.

  The LCS Skills Group's remit is to provide strategic direction for the implementation of evidence-based skills interventions. The LCS Skills Group also provides an aligned and coherent skills voice for Life and Chemical Sciences in Scotland.

- **SULSA Skills Committee**

  The SULSA Skills Committee is comprised of educators within 12 Scottish universities and one research institute (James Hutton Institute) and supports SULSA in its aim to drive collaborative skills provision across Scottish universities for life sciences-related undergraduate and postgraduate programs. The committee is chaired by Prof Claire Garden.

Appendix 2: Summit Agenda

Registration | Coffee | Networking	**09:15 - 10:00**
Welcome Address Principal Jim Metcalfe, Fife College Mr Lochhead, Minister for Business and Employment	**10:00 - 10:25**
Reflections on Progress Professor Claire Garden, Edinburgh Napier University	**10:25 - 10:40**
How is sustainability driving change in the sector? Presentation from Debbie McElhone, CPI's MMIC Panel Session	**10:40 - 11:35**
Break for Refreshments	**11:35 - 11:50**
What is AI and how it is changing the world of work? Presentation from Nuria Fraile-Diaz, The Data Lab Panel Session	**11:50 - 12:45**
Networking Lunch	**12:45 - 13:45**
Driving Innovation Through Collaboration Presentation from Robert Martin, Innovate UK Workshop Session	**13:45 - 15:00**
Summary of the Day Yvonne Bayne, Fife College	**15:00 - 15:10**
Networking and Close	**15:10 - 15:30**

Appendix 3: Presenters and Panel Members

Reflections on Progress Since the 2023 Skills Summit
Prof Claire Garden, Associate Dean of Teaching and Learning at the School of Applied Sciences at Edinburgh Napier University

Theme 1: How is sustainability driving innovation and change in the sector?
Presentation: Debbie McElhone, CPI's MMIC
Panel Members:
Adam Liddle, Head of Sustainability, Roslin CT
Debbie McElhone, Head of Sustainability
Mhairi Hay, Director of Curriculum, Forth Valley College
Rory Porteous, Sustainable Laboratories Advisor, University of Glasgow
Chaired by Sarah Hunt, Skills Development Scotland

Theme 2: What is AI and how it is changing the world of work?
Presentation: Nuria Fraile-Diaz, Digital Learning & Development Manager, The Data Lab
Panel Members:
Stuart Phillips – Staff Scientist, BGM Engineering, Life Scan Scotland
Ken Sutherland, Managing Director of Canon Medical Research Europe and Assistant to the Chief Technology Executive of Canon Medical Systems in Japan, Cannon Medical
Kenji Lamb, Delivery & Engagement Partner, College Development Network
Denise Haugh, Lecturer, University of Glasgow
Chaired by Sarah Hunt, Skills Development Scotland

Theme 3: Driving Innovation Through collaboration
Presentation: Robert Martin, Manager for Scotland, Innovate UK