Sectoral Skills Assessment
Life and Chemical Sciences
November 2022
Sectoral Skills Assessments

First launched in 2017, the purpose of the Sectoral Skills Assessments (SSAs) is to provide a robust evidence base to support partners in strategic skills investment planning. Skills Development Scotland (SDS) has worked with key partners and stakeholders in the production of SSAs to ensure an inclusive approach to their development, dissemination and utilisation.

SSAs include the use of published data sets. Inevitably, when using published data there is a time lag, but the data contained is the most up-to-date available at the time of writing.

SSAs also include forecast data that has been commissioned through Oxford Economics. The Technical Note provides full detail on the caveats that must be applied when using forecast data, but broadly, it should be noted that:

- Forecasts are based on what we know now and include past and present trends projected into the future.
- The more disaggregated they become, especially at smaller geographical units, the less reliable they are likely to be.
- Their value is in identifying likely directions of travel rather than predicting exact figures.

Oxford Economics forecasts used in this SSA reflect the economic outlook at the time of writing (early September 2022).

Industries and occupations used in the SSAs are defined by standard occupational classifications (SOC) and standard industrial classifications (SIC). The Office for National Statistics (ONS) have useful SIC and SOC hierarchy tools that can be used to understand the classifications in more detail.

This SSA infographic is for the Life and Chemical Sciences Key Sector. The sector encompasses: Life Sciences includes the Manufacture or Research Associated with Medtech, Digital Health, Pharma Services and Contact Research Organisations, Therapeutics, Agritech, and Stem Cell and Regenerative Medicine. Chemical Sciences includes the Manufacture of Commodity, Speciality and Consumer Chemicals plus Materials and Industrial Biotechnology.

Key Sectors are central to our Skills Investment Planning approach. Each Key Sector has a tailored Skills Investment Plan (SIP) which gives a picture of the economic and labour market situation, trends in skills and qualification supply and employers’ perspectives on the skills issues affecting the sector. Regional SIPs have also been developed. SIPs and RSIPs are available on the SDS website.

We value user feedback on the Sectoral Skills Assessments. If you would like to provide feedback on the SSAs please do so here.

The SSAs are part of a suite of Labour Market Insight publications by SDS. Other products in the suite include:

- **Economy, People and Skills** provides succinct and up-to-date evidence on the impact on Scotland’s economy, business and people. It is updated monthly.

- **Regional Skills Assessments** provide a coherent evidence base to inform future investment in skills, built up from existing datasets and forecasts for Regional Outcome Agreement areas, Rural Scotland and all City and Growth Deals regions. It is updated annually.

- The **Data Matrix** is an interactive tool which supplements this report, offering data from a variety of sources in a visually engaging format. It is updated frequently.

Alongside the suite of Labour Market Insight publications, SDS also produce a wide range of reports such as statistics on the Apprenticeship Family and the Annual Participation measure for 16-19 year olds. Further information can be found on the Publications and Statistics section of the SDS corporate website.

For any further information or queries on the SSAs or any of our other products, please contact: RSA@sds.co.uk

A full list of references is available on page 11.
The Context for Scotland’s Labour Market and Sectoral Insight

Successive, escalating global challenges – such as the pandemic and war in Ukraine – combined with persistent issues of low growth and productivity, have led to a period of unprecedented economic uncertainty. Meeting a challenge of this scale will require a fit-for-purpose skills system to support and attract inward investment, increase productivity and tackle inequality and deprivation. The Scottish Government’s National Strategy for Economic Transformation (NSET) sets out ambitions for Scotland to become Fairer, Wealthier and Greener over the next ten years, with people at the heart of a wellbeing economy. This chapter provides an overview of five key drivers that will interplay to determine a positive future for Scotland.

Economy

The economic outlook for the remainder of 2022 and into 2023 is bleak, and GDP growth forecasts for UK and Scotland have been downgraded. The Bank of England forecast that the UK will enter a recession in 2023 whilst the Fraser of Allander Institute expects Scotland’s economy to contract in the second half of 2022.

Inflation is at levels not seen for 40 years placing businesses and households in Scotland in a state of financial uncertainty as the cost-of-living crisis continues.

This has impacted business confidence in Scotland and is already causing many households and businesses to struggle to make ends meet. One-quarter of individuals surveyed in August 2022 stated their financial situation was ‘very insecure’.

Continuity of funding for programmes across the sector will be key for the industry. Examples include the work delivered through the recent National Transition Training Fund and the Advanced Skills Therapies Training Network.

Climate Change

The Scottish Government has set 2045 as the target for achieving a net zero carbon economy. The 2021 Energy Position Statement ahead of COP26 cemented Scottish Government priorities. The labour market will be affected by changes to climate change legislation and consumer behaviours as the economy moves towards greater sustainability.

Published in December 2020, the Climate Emergency Skills Action Plan sets out the Scottish Government’s plan to maximise the transition to net-zero for Scotland, ensuring that Scotland’s workforce has the skills required to make the transition to net-zero a just transition, fair and inclusive to all. Demand for green jobs (and green skills) is expected to increase rapidly as a result of policy and legislative drivers and consumer choice.

The Transitioning at Pace to Net Zero programme delivered through the National Transition Training Fund involved training to upskill senior leaders with climate emergency principles to enable informed workforce planning and skills development to support Scotland’s Net Zero ambitions.

This training was CPD accredited and delivered online through short courses, with an option for in person and virtual networking each month.

Inclusive Growth and Equality

The Scottish Government’s focus on Fair Work remains, supporting ‘growth that combines increases in prosperity with greater equity, creates opportunities for all and distributes the dividends of increased prosperity fairly’.

The pandemic exacerbated the existing inequalities and unevenly impacted some groups in society, including young people, older workers, women, disabled people, ethnic minority groups, low paid and low-income households. The Scottish Government’s COVID Recovery Strategy aims to help those hardest hit by COVID by addressing the systematic inequalities worsened by the pandemic and by making progress towards a wellbeing economy.

Actions to achieve this will include upskilling and retraining opportunities for employees impacted by the pandemic and the transition to net zero, support for low-income families most at risk of poverty, and mental health and wellbeing support for children and young people.

More companies across the sector are hiring from colleges across Scotland, providing greater employment opportunities to local communities which are more accessible across socioeconomic groups.
## Demographic Change

Scotland has a distinct demographic challenge. Over the next 25 years, Scotland’s population is expected to decrease by 1.5 per cent. As with many economies in the developed world, Scotland’s population is ageing. By 2045, the number of people of pensionable age in Scotland is expected to increase by 20.6 per cent (205,800 people), whilst the working-age population* is projected to decline by 2.4 per cent (-84,400 people). This could contribute to a tighter labour market in the future and an increasing dependency ratio.

Brexit has led to heightened uncertainty about the supply of migrant labour from the EU and further afield. The Life and Chemical Sciences sector is more reliant on EU migrants compared to Scotland as a whole**. In 2021/22, EU citizens accounted for 8.6 per cent of all employees in the sector, compared to 6.7 per cent of Scotland’s employees.

Labour shortages are already a dominant concern for Scottish businesses, as the supply of people in the labour market continues to decline. Between August and September, almost half of Scottish businesses experienced a shortage of workers (44.5 per cent) and nearly half of businesses reported difficulties recruiting employees (42.4 per cent). One of the main challenges for the sector is the integration of entry-level staff. In the past, some entry-level roles would have been filled by experienced EU workers.

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## Automation and Digital Economy

Advances in technology continue unabated and these are changing the world of work. In Scotland, around 46 per cent of jobs have high potential for automation, some 1.2m jobs. Many jobs are expected to evolve rather than disappear. There will also be the creation of new high-quality jobs and opportunities for more flexible working, which was expedited by the pandemic.

Research suggests that the pandemic has accelerated digital transformation, and digital skills gaps are already being felt by employers across the Scottish labour market, with jobs in software development, artificial intelligence and cyber security in high demand.

Ensuring that Scotland’s workforce have the necessary digital skills to support the skills needs of the digital economy will not only allow Scotland to remain globally competitive but will also support Scotland’s transition to net-zero and the inclusive growth agenda.

Virtual reality training in Life Sciences has the potential to bridge the skills gap, but it is early stages of adoption in comparison to other sectors. A mechanism to fund and facilitate the uptake of this technology would help bridge the skills gap and allow the sector to be more proactive in meeting current and future skills needs.

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## Sectoral Insight

At a national level, there continues to be a policy focus on the importance of Life and Chemical Sciences through the National Strategy for Economic Transformation.

The sector continues to experience a period of growth and investment with Advanced Therapies, as a major sub-sector driving much of this growth. As a result, the industry is facing increasing demand for talent, which in turn is increasing both competition and salaries.

The number of Modern Apprenticeships across the sector continues to rise suggesting the industry is shifting from a reliance on graduate degrees as a minimum entry requirement. In addition, a new Quality Technician Framework has been approved as part of a wider Life Sciences Modern Apprenticeship.

Regionally, funding through the Tay Cities Deal aims to grow the regional Biomedical Cluster to create innovation led growth through new company formations, inward investment, sustainable jobs and new training opportunities.

The Falkirk Growth Deal aims to channel investment behind two pillars of Innovative Industry and Creating Great Places. The investment aims to transform Grangemouth’s chemicals and related manufacturing industries and ensure that opportunities in Life and Chemical Sciences are accessible to all. The Deal plans to encourage dedicated skills provision focused on new, low-carbon technologies.

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1. Insight provided by Sector Managers who work closely with industry experts and employers.

* Please note, the figures for working age and pensionable age populations are based on State Pension age (SPA) for the given year.

** Due to data availability, a ‘best fit SIC code approach’ has been used, so the sectoral definitions and totals in this section may vary from those we have used elsewhere.
In 2022, GVA in the Life and Chemical Sciences sector was forecast to be £6,004m, accounting for 4.0 per cent of Scotland’s total economic output. Between 2012 and 2022, GVA in the sector increased by 22.7 per cent. This compares to an increase of 12.8 per cent for Scotland overall.

Although the COVID-19 pandemic led to a sharp fall in activity in many sectors, the Life and Chemical Sciences sector responded well to the demands of the pandemic. The Life and Chemical Sciences sector was one of the few of Scotland’s key sectors not to experience a contraction in GVA, instead increasing by 13.8 per cent in 2020, compared to the overall Scottish GVA decline of 9.0 per cent.

The Life and Chemical Sciences sector has been less affected than the Scottish economy as a whole, with GVA continuing to remain above pre-pandemic levels.

<table>
<thead>
<tr>
<th>Year</th>
<th>Gross Value Added (GVA, £m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>35,968</td>
</tr>
<tr>
<td>2013</td>
<td>36,061</td>
</tr>
<tr>
<td>2014</td>
<td>37,273</td>
</tr>
<tr>
<td>2015</td>
<td>39,669</td>
</tr>
<tr>
<td>2016</td>
<td>42,795</td>
</tr>
<tr>
<td>2017</td>
<td>42,556</td>
</tr>
<tr>
<td>2018</td>
<td>44,173</td>
</tr>
<tr>
<td>2019</td>
<td>45,132</td>
</tr>
<tr>
<td>2020</td>
<td>45,969</td>
</tr>
<tr>
<td>2021</td>
<td>46,741</td>
</tr>
</tbody>
</table>

Between 2025 and 2032, it is expected to grow by a further 23.4 per cent to £309,500, compared to growth across all sectors of 7.9 per cent between 2025 and 2032.

### Productivity (GVA per job)

Productivity is the measure of goods and services produced per unit of labour input. Oxford Economics provide a measure of productivity based on the number of jobs in the sector, however, there are other ways to calculate productivity, such as by the number of hours worked. The forecasts of productivity shown here have been calculated by dividing total sectoral GVA by total sectoral employment (measured by jobs).

In 2022, productivity in the Life and Chemical Sciences sector was forecast to be £228,900. This was higher than the Scottish average of £54,100.

Between 2022 and 2025, productivity is forecast to grow by 9.6 per cent to £250,800. This compared to growth across all sectors of 2.4 per cent between 2022 and 2025.

### Forecasts

1. Forecasts by Oxford Economics (unless otherwise stated). See Page 11 for full list of source references.
2. GVA is the measure of the value of goods and services produced within the economy and is an indicator of the sector’s health. GVA in constant 2019 prices.
3. Productivity is the measure of goods and services produced per unit of labour input. The Oxford Economics forecasts of productivity shown here have been calculated by dividing total sector GVA by total sector employment (measured by jobs).
Current Demand

**Workforce size 2022: 24,600 people**

The workforce increased by 27.0% or 6,400 people between 2012 and 2019, and then declined by -11.9% or -3,600 people from 2019 to 2021.

This compares to a Scotland wide increase of 7.1% or 174,300 people between 2012 and 2019, and a decline of -2.2% or -56,900 people from 2019 to 2021.

**Workforce Qualifications, 2022**

Life and Chemical Sciences has a higher proportion of the workforce educated to SCQF levels 7 and above, and a lower proportion educated to SCQF levels 5 and 6 compared to Scotland overall.

<table>
<thead>
<tr>
<th>SCQF Level</th>
<th>Scotland</th>
<th>Life and Chemical Sciences</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCQF 11-12</td>
<td>12%</td>
<td>11%</td>
</tr>
<tr>
<td>SCQF 7-10</td>
<td>42%</td>
<td>44%</td>
</tr>
<tr>
<td>SCQF 6</td>
<td>14%</td>
<td>15%</td>
</tr>
<tr>
<td>SCQF 5</td>
<td>15%</td>
<td>17%</td>
</tr>
<tr>
<td>SCQF 1-4</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>No qualifications</td>
<td>5%</td>
<td>6%</td>
</tr>
</tbody>
</table>

Employment by Region (people), 2022

The Life and Chemical Sciences workforce is distributed across Scotland, with the highest number of workers in Edinburgh, East and Midlothian, Glasgow College Region and Lanarkshire.

- Edinburgh, East and Midlothian: 4,800
- Glasgow College Region: 2,600
- Lanarkshire: 2,400
- Tayside: 2,400
- Forth Valley: 2,200
- West Region: 2,200
- Highlands and Islands: 2,000
- Ayrshire: 1,900
- West Lothian: 1,800
- Aberdeen City and Shire: 1,100
- Fife: 800
- South of Scotland: 500
- Scottish Borders: 300
- Dumfries and Galloway: 200

**The proportion of workforce in the Local Authority employed in Life and Chemical Sciences, 2022**

It is important to understand where the sector’s workforce is distributed, however, local authorities also have sectoral strengths that make them unique. This means that the Life and Chemical Sciences sector may be more important to local economies than the level of employment suggests.

In 2022, the Life and Chemical Sciences sector accounted for 0.9 per cent of Scottish employment. The sector was more prominent in the Midlothian (4.3 per cent), North Ayrshire (4.1 per cent), and East Lothian (3.6 per cent) local authorities.

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1. All data on this page sourced from Oxford Economics
2. The proportion of the workforce in the Local Authority employed in sector is calculated by dividing the sectoral employment in the area by total employment in the area.

*Figures may not sum due to rounding
### Current Demand

#### Employment by Occupation (people), 2022

<table>
<thead>
<tr>
<th>Occupation</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Science and Technology Professionals</td>
<td>3,600</td>
</tr>
<tr>
<td>Business and Public Service Professionals</td>
<td>2,600</td>
</tr>
<tr>
<td>Business and Public Service Associate Professionals</td>
<td>2,200</td>
</tr>
<tr>
<td>Corporate Managers</td>
<td>2,000</td>
</tr>
<tr>
<td>Administrative Occupations</td>
<td>1,900</td>
</tr>
<tr>
<td>Process, Plant and Machine Operatives</td>
<td>1,900</td>
</tr>
<tr>
<td>Science and Technology Associate Professionals</td>
<td>1,900</td>
</tr>
<tr>
<td>Skilled Metal and Electrical Trades</td>
<td>1,700</td>
</tr>
<tr>
<td>Culture, Media and Sports Occupations</td>
<td>1,000</td>
</tr>
<tr>
<td>Elementary Occupations: Trades, Plant and Storage</td>
<td>800</td>
</tr>
<tr>
<td>Textiles, Printing and Other Skilled Trades</td>
<td>800</td>
</tr>
<tr>
<td>Elementary Occupations: Clerical and Services related</td>
<td>700</td>
</tr>
<tr>
<td>Customer Service Occupations</td>
<td>600</td>
</tr>
<tr>
<td>Managers / Proprietors in agriculture and services</td>
<td>500</td>
</tr>
<tr>
<td>Health Professionals</td>
<td>400</td>
</tr>
<tr>
<td>Secretarial and Related Occupations</td>
<td>400</td>
</tr>
<tr>
<td>Skilled Construction and Building Trades</td>
<td>400</td>
</tr>
<tr>
<td>Transport and Mobile Machine Drivers and Operatives</td>
<td>400</td>
</tr>
<tr>
<td>Sales Occupations</td>
<td>300</td>
</tr>
<tr>
<td>Caring Personal Service Occupations</td>
<td>200</td>
</tr>
<tr>
<td>Health and Social Welfare Associate Professionals</td>
<td>100</td>
</tr>
<tr>
<td>Teaching and Research Professionals</td>
<td>100</td>
</tr>
<tr>
<td>Leisure and Other Personal Service Occupations</td>
<td>0</td>
</tr>
<tr>
<td>Protective Service Occupations</td>
<td>0</td>
</tr>
<tr>
<td>Skilled Agricultural Trades</td>
<td>0</td>
</tr>
</tbody>
</table>

### Fair Work and Gender Pay Gap

**Fair Work** is work that offers all individuals an effective voice, opportunity, security, fulfillment and respect and one element of Fair Work relates to individuals earning a Living Wage or more.

#### Individuals earning the Living Wage or more:

<table>
<thead>
<tr>
<th>Professional, Scientific &amp; Technical Activities</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>All sectors</td>
<td>91.2%</td>
<td>92.1%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>83.9%</td>
<td>87.1%</td>
</tr>
</tbody>
</table>

#### Gender Pay Gap for median full-time hourly earnings:

<table>
<thead>
<tr>
<th>Professional, Scientific &amp; Technical Activities</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>All sectors</td>
<td>21.4%</td>
<td>24.6%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>13.2%</td>
<td>17.2%</td>
</tr>
</tbody>
</table>

Note: Due to data availability, a ‘best fit SIC code approach’ has been used, so the sectoral definitions and totals in this section may vary from those used elsewhere.

### Modern Apprenticeships

The COVID-19 pandemic has had an impact on the economy and labour market, and MA data should be considered in this context. Please use caution when comparing MA data from 2019/20 and 2020/21.

|-------------------------------------------------|----------------|----------------|----------------|

<table>
<thead>
<tr>
<th>MAs in training for Chemical &amp; Biotechnology Related**</th>
<th>Q4 2020/21: 76</th>
<th>Q4 2021/22: 76</th>
<th>Q2 2022/23: 74</th>
</tr>
</thead>
</table>

1. All Forecasts by Oxford Economics (unless otherwise stated).
2. Due to data availability, a ‘best fit SIC code approach’ has been used, so the sectoral definitions and totals in this section may vary from those used elsewhere.
3. Individuals earning the Living Wage or more denotes that individuals earning the Living Wage or more, as a percentage of all individuals.
4. A 4% gender pay gap denotes that women earn 4% less, on average than men. Conversely, a -4% gender pay gap denotes that women earn 4% more, on average, than men.
5. A 4% gender pay gap denotes that women earn 4% less, on average than men. Conversely, a -4% gender pay gap denotes that women earn 4% more, on average, than men.
6. Due to data availability, a ‘best fit SIC code approach’ has been used, so the sectoral definitions and totals in this section may vary from those used elsewhere.
Online job postings data provides a useful barometer for the health of the jobs market. It is important to note that the data does not capture all activity, so it should be considered as an estimate of activity only.

The number of postings in the Life and Chemical Sciences sector declined in 2020 due to restrictions associated with the pandemic. In 2021, job postings in the sector began to rise and peaked in March 2022. The number of job postings indicates increased demand for workers in the sector, while the supply of people has been impacted by the pandemic and Brexit.

Since March 2022, the number of job postings has declined to 300. However, there were 51 per cent more job postings in September 2022 compared to pre-pandemic levels (March 2020). This compares to an increase of 41 per cent for job postings in Scotland overall.

The most requested specialised skills in Life and Chemical Sciences were:

- Teamwork / Collaboration
- Customer Service
- Project Management
- Budgeting
- Quality Assurance and Control
- Clinical Research
- Biotechnology
- SAP
- Sales
- Chemistry
- Quality Management
- Good Manufacturing Practices (GMP)
- Process Improvement
- Biology

The median real-time advertised salary in Life and Chemical Sciences was: £27,800*

Between January 2022 and September 2022, there were 3,500 job postings in the Life and Chemical Sciences sector, of which:

The top job postings were:
- Sales Related Occupations: 200 job postings
- Programmers and Software Development Professionals: 100 job postings
- Marketing and Sales Directors: 100 job postings
- Biological Scientists and Biochemists: 100 job postings
- Managers and Proprietors in Other Services: 100 job postings

The locations with the most jobs advertised were:
- Glasgow City: 900 job postings
- Edinburgh City: 700 job postings
- Renfrewshire: 700 job postings
- East Lothian: 200 job postings
- West Lothian: 200 job postings
- Dundee City: 100 job postings

1. Lightcast (Burning Glass Technologies), 2022. Job postings by industry should be used as an indication only. Identifying the industry for each job posting is challenging. Some of the job descriptions do not reliably describe the industry, making it harder to identify through the Companies House, especially if the vacancies are promoted through staffing companies.

2. Job postings are rounded to the nearest 100.

3. Not all job postings specify the skills required for the role, likewise the detail varies between adverts. The most specialised skills outlined here are based on information from approximately 86% of job postings.

* Median salary based on 27% of records that contain salary information.
In the Life and Chemical Sciences sector, the labour market is forecast to continue to face some challenges. The forecasts for the mid-term (2022-2025) suggest that 1,100 fewer people will be required in the sector (a decrease of 4.3 per cent). This is in contrast with a growth forecast overall across Scotland where employment is predicted to rise by 1.2 per cent (31,900 people).

In 2025, the top employing regions in the sector are forecast still to be Edinburgh, East and Midlothian and Glasgow College Region. Similar to 2022, the largest proportion of the workforce employed in the Life and Chemical Sciences sector is forecast to be educated to SCQF 7-10 and SCQF 5, and top employing occupations will be Science and Technology Professionals, accounting for 14.9 per cent of employment.

The forecasts for the mid-term (2025-2032) highlight that employment growth is not forecast. However, it is expected that there could be an ongoing requirement for skilled people to fill opportunities created by people leaving the labour market. This feature of the labour market, known as the replacement requirement, is a symptom of the demographic change strategic driver.

**Future Demand: Mid-term (2022-2025)**

<table>
<thead>
<tr>
<th>Job Openings*</th>
<th>Expansion demand:</th>
<th>Replacement demand:</th>
<th>Total requirement:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-1,100 people</td>
<td>1,100 people</td>
<td>less than 50 people</td>
</tr>
</tbody>
</table>

1. All data on this page sourced from Oxford Economics.  
* Total requirement for people is made up of expansion and replacement demand. Expansion demand is the measure of an increase/decrease in jobs as a result of economic growth or contraction; replacement demand is the number of job openings generated through labour market churn (i.e. those who retire, move away or change jobs). Please note, figures are rounded to the nearest 100 and as a result totals may not equal the sum of the constituent parts.
Future Demand: Long-term (2025-2032)

Employment decline in the Life and Chemical Sciences sector is forecast to continue, with a decrease of 7.4 per cent (-1,700 people) in the long-term (2025-2032). This is in contrast with a growth forecast overall across Scotland where employment is predicted to rise by 1.5 per cent (40,700 people).

In 2032, the top employing regions in the sector are forecast to be Edinburgh, East and Midlothian and Glasgow College Region. The largest proportion of the workforce employed in the Life and Chemical Sciences sector is forecast to be educated to SCQF 7-10, and top employing occupations will be Science and Technology Professionals, accounting for 15.5 per cent of employment.

It is also expected that there could be an ongoing requirement for skilled people to fill opportunities created by people leaving the labour market. This feature of the labour market is known as the replacement requirement. Forecasts show that there will be 300 job openings in the long-term. This will be driven by the need to replace workers leaving the labour market.

### Workforce (people), 2032

**Workforce Size 2032: 21,800 people**

- The workforce is expected to **decline** by -7.4% or -1,700 people between 2025 and 2032
- Compared to a Scotland wide increase of 1.5% or 40,700 people

### Top 10 Employing Occupations (people), 2032

- **Science and Technology Professionals**: 3,400
- **Business and Public Service Professionals**: 2,600
- **Business and Public Service Associate Professionals**: 2,100
- **Administrative Occupations**: 2,000
- **Corporate Managers**: 1,800
- **Science and Technology Associate Professionals**: 1,600
- **Skilled Metal and Electrical Trades**: 1,300
- **Process, Plant and Machine Operatives**: 1,200
- **Culture, Media and Sports Occupations**: 1,000
- **Textiles, Printing and Other Skilled Trades**: 600

### Job Openings*

- **Expansion demand**: -1,700 people
- **Replacement demand**: 2,000 people
- **Total requirement**: 300 people

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1. All data on this page sourced from Oxford Economics.
2. * Total requirement for people is made up of expansion and replacement demand. Expansion demand is the measure of an increase/decrease in jobs as a result of economic growth or contraction; replacement demand is the number of job openings generated through labour market churn (i.e. those who retire, move away or change jobs). Please note, figures are rounded to the nearest 100 and as a result totals may not equal the sum of the constituent parts.
## References

| Page 2 | 1. SSA Technical Note (2022)  
| --- | --- |
| Page 3 | 1. SDS (2022). Skills Planning and Sector Development Directorate. Insight from Sector Managers  
| Page 4 | 1. SDS (2022). Skills Planning and Sector Development Directorate. Insight from Sector Managers  
3. ONS (2022) Annual Population Survey, April 2021-March 2022, Working Age EU and Non-EU nationals in Scotland areas by areas occupation and industry. Working-age EU and non-EU nationals in Scotland areas by industry groups and economic activity reasons.  
| Page 5 | 1. SDS (2022). Oxford Economics Forecasts (September 2022) |
| Page 6 | 1. SDS (2022). Oxford Economics Forecasts (September 2022)  
3. Flourish Studio (2022): Available online at: [https://flourish.studio](https://flourish.studio) |
| Page 7 | 1. SDS (2022). Oxford Economics Forecasts (September 2022)  
| Page 8 | 1. Lightcast (Burning Glass Technologies) 2022. |
| Page 9 | 1. SDS (2022). Oxford Economics Forecasts (September 2022) |
| Page 10 | 1. SDS (2022). Oxford Economics Forecasts (September 2022) |
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