

Engineering & Manufacturing

Some useful links and tips for expanding your labour market insight (LMI).

Scotland's National Strategy for Economic Transformation (NSET), published March 2022, included Scotland's commitment to Net Zero goals and outlined high-value sectors important to Scottish economic growth, this included:

Circular Economy; Energy Transition; High-Value Manufacturing; Industrial Biotechnology and Emerging Technologies.

Exploring Engineering & Manufacturing

I'm looking for general information that's easy to navigate and share.

My World of Work: Industries – Engineering & Manufacturing

MyWoW industry pages offer a sector overview and video, employment figures, a selection of related jobs to explore, useful school subjects and wider network links.

Also see: CareerSmart STEM industries

insight for UK LMI data

Digital Economy Skills & Career Guide

Easy to read and share guide describing what a digital economy is, the skills need, opportunities and how it fits with different sectors, including Engineering & Manufacturing.

Engineering & Manufacturing Insight & Statistics

I'm looking to build a better understanding of this sector within the Scottish labour market, regions, and local authority areas.

<u>Sectoral Skills Assessment (SSAs) -</u> Engineering

The annually updated SSA reports combine quantitative data and qualitative sector expert insight. There is a report focused on Scottish Engineering and one on Food & Drinks Manufacturing. Manufacturing also appears in other reports, like Life & Chemical Sciences.

Green Skills Research & Evidence

Skills Development Scotland research into future 'green' jobs and skills is shared here. Manufacturing, including Engineering, is one of the sectors predicted to require more green skills to support the transition to net zero.

Scottish Government: Manufacturing
Also see: Scotland.org Key Sectors
for some simple Engineering &

Manufacturing stats and video.

Regional Skills Assessments(RSAs) & Data Matrix

You can view current and forecast job numbers for 'Accommodation & Food Service Activities' or 'Arts, Entertainment & Recreation' by region in each RSA Report, the RSA Rural Scotland Report and/or view Local Authority data via the interactive Data Matrix

Also see: RSAs & SSAs webinars introducing the reports. These include a Data Matrix tour. Offering an overview, latest sector news and key policies.



WIDER FOCUS: Engineering & Manufacturing opportunities go beyond Scottish borders. Organisations like **World Economic Forum**, **McKinsey** and **PwC** can offer a wider perspective.

INDUSTRY INSIGHT

Often the best place to find data and insight on a sector is from governing bodies, national agencies, and trade unions. For Engineering & Manufacturing this includes:

Scottish Engineering

The industry association for Scotland's manufacturing and engineering sector. They share industry news, quarterly sector snapshots, events and training, including an online **Net Zero Skills Programme** for those working in the sector.

Energy Skills Partnership (ESP)

Support colleges to develop their curriculum through Training Networks. They have online insight and training linked to Engineering and 'Resources' for Advanced Manufacturing, Automotive and Engineering.

LMI for Learning

I'm looking for resources and videos that will help me understand and share labour market insight and experiences with a young person or group.

Marketplace

Joint DYW and SDS opportunity zone for all industry sectors, with work inspiration and preparation content for young people and well as experience opportunities. There are also 'influencer' events and resources for professionals, parents & carers like the Parents' and Carers' guide to engineering careers.

<u>PlanitPlus: Career Areas - Engineering</u> or Manufacturing Industries

The Planit Plus areas includes LMI facts & figures as well as a downloadable Career Pathways PDF with progression routes.

Subject Career posters including Engineering Science and Design & Manufacturing posters show some related jobs.

Green Careers Guide

This EAUC guide was developed to support students considering 'green' careers including those linked to the Energy Sector.

Also see: 'Showing the Path to Green' guide for student-facing staff.

LMI for Next Steps

I'm looking for insight about getting started in the sector.

Training

Example: National Manufacturing Institute Scotland (NMIS)

NMIS help manufacturers of all sizes work towards Net-Zero goals, embrace new technologies and transition to a low carbon economy. This includes support to develop relevant skills through the NMIS Skills Academy.

Enterprise

Example: <u>Business Gateway</u>
<u>Industrial Manufacturing</u> or <u>Technology &</u>
<u>Engineering</u>

If you want to explore business start-up options, Business Gateway has useful market reports, additional support and sector stories to get you started.

Example: Catapult High Value
Manufacturing for UK case studies.



Next Steps - Apprenticeships

Apprenticeship.Scot

Includes useful tools such as <u>'Explore your options'</u> showing where Foundation Apprenticeships (FA) might lead and the academic value colleges and universities give FA's (usually 1 Higher at A or B).

SDS Statistics area

If you are looking for data on Apprenticeship uptake and completion the SDS Statistics area has quarterly Modern Apprenticeship report.

Framework A-Z

View a description, qualification level / levels, learning intentions and potential career links of every Scottish Apprenticeship. For this could include:

FOUNDATION APPRENTICESHIPS (FA) in school

- FA Engineering (SCQF level 6)
- FA Civil Engineering (SCQF level 6)

MODERN APPRENTICESHIPS (MA) work & study

- MA Land-based Engineering (SCQF level 5 & 6)
- MA Construction: Civil Engineering (SCQF level 5 & 6)
- MA Engineering (SCQF level 6)
- MA Rail Engineering (SCQF level 6)
- MA Gas Engineering (SCQF level 6)
- MA Bus & Coach Engineering & Maintenance (SCQF level 6)
- MA Engineering Construction (SCQF level 6 or 7)
- MA Engineering: Technical Support (SCQF level 7)
- MA Engineering: Manufacturing & Fabrication (SCQF level 7)
- MA Engineering: Asset Lifecycle & maintenance (SCQF level 7)
- MA Engineering & Digital Manufacturing (SCQF level 8)

GRADUATE APPRENTICESHIPS (GA)

- GA Civil Engineering (SCQF level 10)
- GA Engineering: Instrumentation, Measurement & Control (SCQF level 10)
- GA Engineering: Design & Manufacture (SCQF level 10)

For learners experience of Apprenticeships see: Scottish Apprenticeships YouTube

Next Steps - Education

You can search for Engineering & Manufacturing course options on <u>My World of Work</u>. If you need more data on these education pathways and destinations here are a couple of sources:

Scottish Funding Council (SFC): College Leaver Destinations

In this annual report you can see number of leavers by subject areas – including Engineering - and level of study with an indication of numbers entering work or study.

Discover Uni

Allows you to view individual university course data, including Engineering and Manufacturing courses and compare multiple course / universities, includes data like student satisfaction rates, average earnings and employment after the course.

Much of the data comes from HESA – Higher Education Statistics Agency

Thanks for your time – if you have any comments, questions or suggestions contact us at: education@sds.co.uk