

Manufacture in scotland today 13883

[Technology](#)



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" Manufacturing In Scotland Today"

Introduction

This report is not so much on the state of the manufacturing industry in Scotland but rather of it" s current success. Scottish productivity consistently ranks among the highest worldwide and multinational companies have expanded their presence in Scotland to capitalise on this.

Due to the extent of the manufacturing industry in Scotland I am going to focus on four areas these being: Electronics, Semiconductors, Aerospace and Automotive manufacture. Other major areas of manufacture in Scotland include Biotechnology (which I will touch upon later), Food (with annual sales totalling ? 7. 3 billion) and Textiles.

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Scotland is the home to around 550 electronics companies including multinational giants such as IBM, Compaq, Motorola, Matsushita and Phillips. Scotland also has one of the highest concentrations of semiconductor fabrication companies in Europe including NEC, Motorola, National Semiconductors and Raytheon Systems. While the Scottish aerospace industry comprises of 52 companies including BAE Aerostructures, GEC Marconi Radar and Control Systems, Greenwich Caledonian, Rohr, Bond Helicopters and Woodward Governor and it has world-class expertise in electronics, plastics and aluminium founding, all of which are increasingly important in automotive manufacture.

All these companies chose Scotland. Home to Europe's most experienced electronics work-force the Scots are known worldwide for their work ethic, as well as for their skills and initiative they are praised for low turnover rates, low absenteeism, and high levels of responsiveness to training and new technologies. Partly this can be put down to Scotland" s educational system which places particular emphasis on electrical engineering, science, mathematics and computer-related studies. Also producing more engineering graduates per capita than all other EU nations.

Scotland also offers the ideal location for companies requiring access to the European market through access to Europe in a matter of hours with it" s modern airports, motorways, deep water seaports and advanced rail freight connections with Europe.

Electronics

The so called Silicon Glen area of Central Scotland is one of the most concentrated areas of electronics activity in Europe. Home to many companies from America, Japan, as well as European multi-nationals and of course independent Scottish companies.

Many leading electronics companies have operations in Scotland, including IBM, Hewlett-Packard, Canon, Compaq, Packard Bell, NEC, Sun Microsystems and Mitsubishi. Altogether they employ 41,000 people, with another 29,900 supporting directly. Total product sales of the Scottish electronics sector amounted to ? 15.5 billion in 1996 with Scotland producing:

a^? 32% of personal computers made in Europe,

a^? more than 7% of the world" s PCs,

a^? 80% of Europe's workstations,

a^? 29% of Europe" s notebooks and

a^? 65% of Europe's automated banking machines.

Optoelectronics

Electrical and optical engineering is Scotland" s largest manufacturing area representing 23% of the country's total manufacturing.

Scotland is a world leader in optoelectronics with the likes of Pilkington Optronics a major developer in military optical systems including periscopes, military laser range finders and thermal imaging systems. GEC Marconi avionics also use their military expertise in laser targeting and guidance

systems. Edinburgh Instruments manufacture all kinds of state of the art lasers. VLSI Vision have developed a new single-chip video camera which is being used used in security systems, medical and automotive products not to mention personal computers and children's toys. Microlase also develop lasers for use in biotechnology and semiconductor research.

Telecommunications

Scotland is home to four of the worlds top ten telecommunications companies including Motorola, Cisco, Lucent and 3Com. Motorola a world leader in portable communications systems operates from Scotland manufacturing a wide range of products, including mobile phones, for the European market. Hewlett-Packard also who have been operating a plant in Scotland for over 30 years where they manufacture products for testing telecommunications systems.

Information Systems

Scotland has been at the forefront of the global information systems industry for over 40 years with leading companies like NCR, Honeywell and IBM all of which take advantage of the countries solid support infrastructure and communications links to serve the markets of Europe and beyond.

Scotland produces Personal computers, including desktop and laptop models. Processing systems, such as electronic funds transfer and automatic teller machines. Peripherals, including display monitors, keyboards, printers and data communication products. Support products, such as disk drives, cable harnesses and switched-mode supplies.

Also the Scottish software industry has a turnover of ? 1.5 billion and employs around 20,000 people.

Semiconductors

Scotland's semiconductor fabrication plants employ over 5,500 people, and suppliers to the semiconductor industry employ 2,700. Scotland has a 7% share of the EMEA semiconductor production capacity and a 33% share of the UK capacity.

Companies choose to locate in Scotland as it is home to the UK's National Microelectronics Institute which tackles any problems that companies from throughout the UK may have. Whilst providing training and the facility for individuals to develop their skills.

All together there are more than 100 semiconductor companies in Scotland, including equipment manufacturers, materials suppliers and support services.

Nikon Precision is a prime example being one of the world's leading producers of semiconductor manufacturing equipment. Nikon Precision Europe is investing ? 22 million in a semiconductor education and application centre in Livingston, this centre will be the first of its kind in the UK.

Motorola operates two semiconductor plants in Scotland as well as a global research and development (R) centre for the manufacture of smart cards. While the NEC facility in Scotland undertakes the manufacture of microprocessor, static and dynamic random access memory products.

Scotland's semiconductor fabrication companies are among the leaders in the development of revolutionary system-on-chip semiconductor devices.

Aerospace

Hosting a well-developed aerospace industry, with companies producing gas turbines and defence avionics. Scotland has a good range of companies, skills and research capabilities.

The Scottish aerospace industry has four particular strengths. Firstly, Scotland has a significant gas turbine cluster. This comprises of around 20 companies, employing a total of more than 4, 000 people and with a combined annual turnover of around ? 450 million.

Secondly, Scotland has a developed supply base, which delivers a wide range of products and services, including airframes and aircraft components, specialist engineering services, and precision sensors and controls.

Thirdly, Scotland has a significant avionics cluster. These companies produce a complete range of electronics systems, including radar, data and voice communications and control systems, all of which are vital in modern aircraft.

Lastly, Scotland delivers strong infrastructure support for the aerospace industry, including the skills and technology base of Silicon Glen, one of the highest concentration of electronics companies in Europe and a world centre of electronics research.

Scotland also has four international airports and is home to the largest civil heliport in the world.

Automotive

With a well developed automotive supply base, and a cluster of commercial vehicle manufacturing companies. It has world-class expertise in electronic, plastics and aluminium founding, all of which are becoming increasingly important in vehicle manufacturing.

More than 50, 000 people work in the transport equipment sector in Scotland, which exports goods to the value of ? 1 billion a year. There are around 80 companies in the sector, with a diverse product range.

Vehicles built in Scotland include heavy commercials, buses (Walter Alexander), earth-moving equipment (Terex Equipment), aerial working platforms, refuse collection trucks, fire-fighting vehicles, rough terrain vehicles and armoured personnel carriers.

In addition, Scotland has a wide range of automotive engineering suppliers, including Michelin Tyres, Uniroyal Englebert (Continental Tyres), Glacier Vandervell (engine bearings, bushes and thrust washers.) and John McGavigan (backlit fascia panels).

Scotland also has a mature plastics sector, based on the wide range of feed stocks produced at Grangemouth, a world-class petrochemicals complex. It has extensive expertise in aluminium casting with a ready supply of raw material from the Alcan smelter in Fort William.

These are completed by a wealth of automotive electronics suppliers, all active members of the Silicon Glen electronics community. These include Motorola who produce semiconductors for automotive applications, CTS makers of throttle position sensors, Prestwick Circuits producers of printed circuit boards for automotive applications and OKI who make control units for engine management systems.

Conclusion

Many companies are choosing to locate in Scotland due to its well trained, reliable work force and because Scotland offers a unique quality of life.

The Manufacturing Industry in Scotland is booming, with many multi-national companies set up in Scotland. Although manufacturing is a secondary industry a lot of the raw materials used are found in Scotland and so these primary industries involved are thriving on the larger companies success and expansion. Completed goods have to be delivered and so there is a Tertiary industry involved as well this being transportation.

An example of such a company is TR Fastenings Ltd,

TR's Scottish Division was specifically set up to serve the thriving Information Technology and business equipment sector. Their main clients are giants Hewlett-Packard and Compaq.

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