

# Life and Chemical Sciences

## Why Manufacture in Scotland?



# WHY SCOTLAND IS A PREMIER LOCATION FOR YOUR LIFE AND CHEMICAL SCIENCES MANUFACTURING

Scotland has been demonstrated to be one of the most cost effective manufacturing locations in Europe and has a range of support mechanisms to de-risk your investment.

Manufacturing is a key element of the life and chemical sectors in Scotland, driven by a national strategy supported by industry, academia and government.

With a strong manufacturing heritage, Scotland has a cost competitive skilled workforce across all aspects of life and chemical sciences and engineering. Given the great quality of life, staff retention is high.

Scotland provides access to cutting edge pharmaceutical research and drug discovery, along with access to world leading clinical research centres. Furthermore, Scotland has two key research

and Innovation Centres focusing on continuous manufacturing and industrial biotechnology dedicated to supporting industry to improve manufacturing processes in life and chemical sciences.

Scotland has a comprehensive pharmaceutical services supply chain, with over 150 companies providing outsourcing solutions across the breadth of therapy, device development and manufacture.

Scotland offers a variety of investment locations, with excellent infrastructure, and extensive connectivity to international markets.

**This unique offering makes Scotland your ideal location for life and chemical sciences manufacturing.**

*“The people are a big attraction. The universities produce high-quality graduates who are well-trained to work in the manufacturing industry. There is also a thriving manufacturing sector in Scotland, so there are experienced staff available to join us, whether that’s doing development or production work.”*

Stephen Brown, Managing Director, Encap Drug Delivery/Capsugel

## Harness the power of Scotland’s Research Excellence to support your high value manufacturing

### Industrial Biotechnology Innovation Centre (IBioIC)

Launched in January 2014 with the full and strong support of industrial companies ranging from startups to multi-national corporations, IBioIC covers all four colours of Industrial Biotechnology. It harnesses the combined intellectual horsepower of 13 Higher Education Institutes and creates a single portal for industry to connect with Industrial Biotechnology know-how. IBioIC also provides open access facilities for industry including the Rapid Bioprocess Prototyping Centre and Flex Bio. [www.ibioic.com](http://www.ibioic.com)

### Continuous Manufacturing and Crystallisation (CMAC)

Based in the Technology and Innovation Centre at the University of Strathclyde, this world leading Centre brings together a team of leading academics from across 7 UK institutions to work closely with industry partners with a shared vision to accelerate the adoption of continuous manufacturing processes. The key technical focus is on particle systems and crystallisation. [www.cmac.ac.uk](http://www.cmac.ac.uk)



## BREADTH OF LIFE AND CHEMICAL SCIENCES MANUFACTURING IN SCOTLAND

Scotland's strong manufacturing tradition continues to thrive today: large multinationals and start ups manufacture a wide range of products in Scotland including fine chemicals, drugs, active ingredients, diagnostics and all the way to precision engineering components and medical devices.

**Everyday, GSK makes enough medicine in Scotland to serve over 20 million people across the world. GSK Montrose will manufacture enough material this year to produce 88 billion puffs of its asthma medicine and GSK Irvine has the capacity to provide over 700 million people with a week's course of its antibiotic tablets.**

**Encap drug delivery is the largest facility in the world for producing liquid-fill medicine capsules.**

**Ineos Grangemouth is one of the largest manufacturing sites in the UK, making more than 1 million tonnes per annum of products used as the**

**building blocks in the manufacture of household items that society depends upon every day.**

**Syngenta Grangemouth manufactures the world leading active ingredient fungicide, Proven AMISTAR® Technology and the blockbuster herbicide AXIAL®.**

**Every minute of every day, 6,500 people all around the world prick their fingers and use one of LifeScan Scotland's test strips to check their blood glucose.**

**Roslin Cell Therapies, based at Edinburgh BioQuarter, makes cell therapies that are used in clinical trials across Europe and the US.**

**Touch Bionics manufactures world-leading prosthetic technologies.**



# SCOTLAND – PREMIER LOCATION FOR LIFE & CHEMICAL SCIENCES MANUFACTURING



## Access to World Class Research Excellence

- Scottish Universities are working on **the cutting edge of pharmaceutical research and drug discovery, chemistry and chemical engineering.**
- Scotland is at the leading edge of **manufacturing innovation** with global centres of excellence focusing on continuous manufacturing (CMAC) and industrial biotechnology (IBiolC).
- Exceptional **culture of collaboration** between NHS, industry, academia and government as illustrated by the Edinburgh BioQuarter innovation cluster.



## Investment

- In the last 3 years, **circa £1 billion has been invested in expanding manufacturing capacity** across both life and chemical science sectors in Scotland.



## Cost Competitive Skilled Workforce

- **Employee cost competitiveness** and reduced employer burden compared to rest of Europe.
- **65,000 Graduates** trained in areas relevant to life and chemical manufacturing, including life and chemical sciences, product and process engineering.
- **Skills Investment Plans** for life and chemical sciences industries.
- **Scotland has one of the most educated workforces** in Europe, with a working population of **3.2m** with **18%** having **degree** qualification or above.
- **Staff retention is high** due to Scotland's excellent quality of life.



## Access to Government and Industry Leadership Networks

- Industry Leadership Groups work with government and enterprise agencies to deliver on **ambitious growth plans.**



## World Class Regulatory Environment

- **World class safety, environmental and GMP regulations.**
- **A standardised regulatory framework** guarantees globally recognised standards from manufacturing, supply and logistics.

## Competitive locations with excellent access to customers and distribution logistics

- Scotland provides **a range of affordable locations to set up manufacturing facilities**, with highly developed transportation infrastructure including Grangemouth, Irvine Bay, Edinburgh BioQuarter, BioCity Scotland, BioCampus, Inverness Campus and Forres.
- Edinburgh, Glasgow and Scotland **in the top ten 'Most Business Friendly' cities or regions in Europe.**



## Comprehensive Supply Chains

- Comprehensive supply chains** support both life and chemical manufacturing.
- 30 dedicated pharmaceutical manufacture and specialist formulation companies.



## Financial Support

- Regional Selective Assistance, up to **50%.**
- Training Plus grants, up to **40%.**
- R&D grants and up to **50%** Collaborative Working grants.
- Lowest rate of corporation tax of the G20 countries.**
- Patent Box creates effective **10% tax rate.**



## Transport and Distribution

- Fast and frequent rail links** to all parts of the UK.
- 6 airports** connecting Europe, Middle East and North America.
- Ferry port and 2 container ports** connect to mainland Europe, with intermodal distribution links.
- Logistics services** can deliver temperature controlled, GxP compliant to 41 major cities in Europe within 24 hours.



## Support for Growth

- Scottish Enterprise and Highlands and Islands Enterprise provide **dedicated strategic and financial support** and facilitate introductions to other specialist teams, including the **Scottish Manufacturing Advisory Service.**
- Scottish Development International has **over 40 offices** across the world to assist your Scottish operations target new markets.



## Quality of Life

- Edinburgh, Scotland's capital, is consistently ranked **as one of the best places to live and work.**
- Countryside, beaches, mountains, rivers and glens all lie within easy reach of city centres.



~850  
ORGANISATIONS

>45,000  
PEOPLE



## KEY LOCATIONS

Scotland, at the cutting edge of the life and chemical sciences industry, is a great place to set up or relocate your business, with a variety of cost effective enterprise areas with quality infrastructure to suit your manufacturing requirements.



### Irvine Bay

- Scotland's biggest single Enterprise Area.
- Life and chemical sciences businesses can benefit from existing infrastructure.
- 30 miles south west of Glasgow.
- Served by 2 International airports (Prestwick Airport - 7 miles , Glasgow Airport - 33 miles ).

The surrounding area is home to a number of globally recognised life and chemical sciences businesses such as **GSK, DSM, Sigma Aldrich, BioForce and Booth Welsh.**



### Grangemouth

- The Grangemouth area has the largest cluster of petrochemical and chemical companies in Scotland.
- Located next to the largest container port in Scotland with intermodal transport.
- Excellent business locations for investment and green or brownfield sites.
- Existing established utilities, facilities, permits and processes offer efficient and secure route to set up a profitable plant in Scotland.

Companies include: **INEOS, CalaChem, Fujifilm Imaging Colorants, Piramal Healthcare, Versalis (Polimeri Europa) and Syngenta.**

### Legend

- |  |                             |  |          |
|--|-----------------------------|--|----------|
|  | Cities                      |  | Airports |
|  | Key Manufacturing Locations |  | Ports    |

## Connected to the World

- 6 airports connecting Europe, Middle East and North America
- Fast and frequent rail links to all parts of the UK
- Ferry port and 2 container ports connect to mainland Europe
- Scotland's logistics services provide temperature controlled, GxP compliant, door to door delivery. From the central belt, you can reach:
  - All 4 major Scottish university hospitals within 3 hours
  - At least 6 major UK cities with key cell therapy centres within 8 hours
  - At least 41 major cities in Europe within 24 hours
- Logistics companies offer specialised services to Asia, Far East, Africa and North America

## DON'T JUST TAKE OUR WORD FOR IT...

Almost £1bn has been invested in life and chemical sciences manufacturing facilities in the last three years from multinational corporations to smaller Scottish companies who are realising the benefits of Scotland's ideal environment for manufacturing, including:

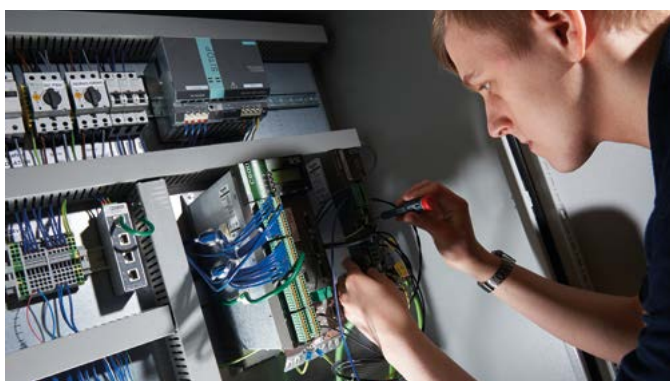
GSK, Ineos, LifeScan Scotland, Capsugel, BASF, Quotient, E&O Laboratories, ThermoFisher Scientific, TC Biopharm, Omega Diagnostics, Piramal Healthcare, Celtic Renewables, and Johnson Matthey.



**GSK** are a science-led global healthcare company with a mission to help people: do more, feel better, live longer. In Scotland, GSK have over 100 years of manufacturing experience between their plants at Montrose in Angus and Irvine in North Ayrshire. Everyday, GSK makes enough medicine in Scotland to serve over 20 million people across the world. Employing over 1,100 staff and around 600 contractors, GSK contribute £87M per year to the local economy through salaries and services.

The Montrose site manufactures a range of active ingredients for some of the company's most important asthma, COPD and HIV medicines. The Irvine site is a centre of excellence for the manufacture of antibiotics.

Having invested over £220m in Scotland over the last 4 years, GSK in July 2016 announced a further £110m investment in its Montrose plant. The money will provide a new state-of-the-art facility for the manufacture of respiratory active ingredients. Replacing an aging facility, this investment will prove long term security for the existing manufacturing related roles and will ensure a continued supply of respiratory medicine to millions of patients around the world.



**LifeScan Scotland** was created in 2001 when Johnson & Johnson acquired the UK assets of Inverness Medical Ltd, a medical device company established in Inverness in 1995 to design and manufacture glucose test strips, and design electronic meters for the global diabetes market. Around 1,100 people are employed at the Inverness facility, which is regarded as a centre of excellence for those working in the field of diabetes.

With a focus on future development, LifeScan is committed to "creating a world without limits for people with diabetes." LifeScan relies on outstanding research and development professionals, like those in Scotland, to realise this vision.

In August 2016, LifeScan Scotland announced a further investment of £8.7m in Inverness.

The teams at LifeScan Scotland design the products in the OneTouch® brand of self-monitoring of blood glucose (SMBG) systems and manufacture the test strips for the global market. The OneTouch® brand has two product families – Ultra® and Select® products, made from carbon technology, and Verio® products, made from precious metals technology.

**"The commitment shown by GSK to Scotland is a reflection of the quality and dedication of the people we have here and the strong compliance culture that exists at Montrose as we look to create a further world-class manufacturing capability for many years to come."**

**Les Thomson, Site Director, GSK Montrose**

**"The investment of £8.7m by Johnson & Johnson here in Inverness is testament to the success of the site, and the confidence our global company, Johnson & Johnson, places on the significant importance that the Lifescan facility in Inverness plays supporting people around the world manage diabetes."**

**David McMillan, Managing Director, LifeScan Scotland**

# SCOTLAND: RECENT AWARDS & ACCOLADES

- North European Region of the future for foreign direct investment (FDI) – fDi magazine, 2014.
- Outside of London, Scotland attracts the most FDI in the UK – Ernst & Young 2015 UK attractiveness survey.
- SDI has been voted the 'World's most consistently high performing agency' by GDP Global Development.
- European Commission has selected Scotland as demonstrator region for sustainable chemicals production.

**Scotland's extensive supply-chain company base, leading manufacturing research centres, affordable skilled workforce and variety of location options, make it the place of choice to grow your manufacturing business. It is why Scotland is the leading location for Foreign Direct Investment in the UK after London according to EY's Global Attractiveness Survey. We at Scottish Development International are here to help you get the dedicated strategic and financial support you need to set up your business in Scotland and grow it globally.**

**Paul Lewis, Managing Director,  
Scottish Development International**

## PARTNER WITH SCOTLAND

We can help your company or project benefit from the business and research opportunities available in Scotland and provide you with information on our wide range of investor support services, including access to training, grants and funding.

To date, around 1500 leading global companies, including *BASF, GSK, Ineos, Johnson & Johnson, Johnson Matthey, Nikon and Syngenta* have invested in Scotland.

You could be next...

**[investment@scotent.co.uk](mailto:investment@scotent.co.uk)**

**[www.sdi.co.uk](http://www.sdi.co.uk)**

