## The economic UNIVERSITY of STRATHCLYDE FRASER OF ALLANDER INSTITUTE contribution of the pharmaceutical industry in Scotland

This analysis has been prepared by the Fraser of Allander Institute (FAI) at the University of Strathclyde. The technical analysis, methodology and writing of the results was undertaken independently by the FAI. This analysis was commissioned and supported by the Scottish office of the Association of the British Pharmaceutical Industry ("ABPI").

## **Overview**

The pharmaceutical sector is a major contributor to the Scottish economy, encompassing a wide range of activities: from internationally leading research and development to manufacturing of pharmaceutical products, sales, marketing and industry leadership.

The sector has been identified by the Scottish Government as a key contributor to the life sciences Growth Sector. Growth Sectors are areas of the economy where the Government believes that Scotland has a distinct comparative advantage.

The industry is also a key employer in towns and throughout rural communities outside of the major cities, making it a key contributor to inclusive growth.

The statistical definition of the pharmaceutical industry in the national accounts covers only the manufacture of pharmaceutical products, although in reality the sector is much wider. Scottish pharmaceutical manufacturing has been growing in size in recent years, reaching its largest share of the UK industry in almost twenty years.

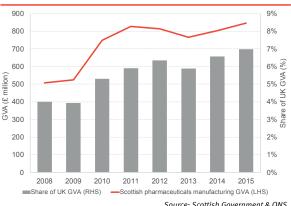
## **Economic Impact Analysis of the wider** pharmaceutical industry

One of the key challenges in assessing the economic contribution of a sector such as pharmaceuticals is that the definition above measures only manufacturing and may not always fully capture all the activity taking place in the sector.

In order to fully assess the contribution of the wider pharmaceutical industry, we consider two main other areas of activity on top of the traditional manufacturing definition. These are:

- Pharmaceuticals related research and development activity. This has been estimated using data on business research and development spending.
- Activity associated with field based workers, which are workers who will not be captured in official figures. These are staff who work in sales, medical liaison and head office functions. ABPI Scotland provided estimates using data from 22 of their 60 member companies, which identified around 400 such staff. Given this represents feedback from under half of ABPI members in Scotland, this number may be higher.

Chart 1: Scottish pharmaceuticals manufacturing GVA and share of UK pharmaceuticals GVA, 2008 - 2015



Source: Scottish Government & ONS



Exports of manufactured pharmaceutical products contribute

£462 million

to the Scottish economy.



The wider pharmaceuticals sector directly supports over

5,000

iobs in Scotland.



Every 100 jobs in the wider pharmaceutical sector supports an additional

240 jobs

elsewhere in the Scottish economy.

## **Economic impact**

The activity of the pharmaceutical industry supports many industries in Scotland, through both complex supply chains (referred to as "indirect effects") and the spending of wages and salaries in the wider economy (referred to as "induced effects").

We estimate that the wider pharmaceutical sector:

- directly supports around 5,130 full time equivalent (FTE) Scottish jobs;
- supports a total of 17,450 FTE jobs in Scotland once wider spill-over factors are taken into account;
- supports a total of £2.5 billion worth of industrial output in Scotland; and,
- supports GVA worth £1.7 billion across Scotland.

Another way of putting this is that for every 100 FTE employees working in the wider pharmaceutical sector, an additional 240 jobs are supported elsewhere in the Scottish economy.

However the sector does face challenges if it is to retain its position internationally and in the UK. In particular, there is evidence to suggest that business spending on research & development (R&D) activity associated with pharmaceuticals has fallen in comparison with the levels seen a decade and more ago. Fifteen years ago, pharmaceuticals R&D spending made up almost one third of business R&D, whereas now it is around 10% in Scotland.

Supported by



The ABPI represents innovative research based biopharmaceutical companies in the United Kingdom. ABPI Scotland represents the interests of these companies in Scotland.

Table 1: Impact of the pharmaceutical sector

	Output (£m)	GVA (£m)	Employment (FTE jobs)
Direct	1,230	960	5,130
Total	2,530	1,740	17,450

Source: FAI analysis

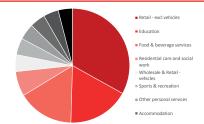


The wider pharmaceutical industry supports over

17,000

iobs in total in Scotland

Chart 3: Breakdown of FTE jobs supported by the wider pharmaceutical industry



Source: FAI analysis

Chart 4: Business R&D spending: top 5 in manufacturing

