

Statistical bulletin

# Business enterprise research and development, UK: 2019

Spending and numbers employed on research and development in the UK, broken down by product sector and civil and defence work.



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## Correction

**15 December 2021 15:46**

An error was discovered in the calculation of Table 19 'Expenditure and Employment on R&D performed in UK businesses: Top 100 Enterprise Groups' for 2019. The values have now been corrected and the release and all related data have been updated. The original releases are also available.

# Table of contents

1. [Main points](#)
2. [Business enterprise research and development data](#)
3. [Measuring the data](#)
4. [Related links](#)

# 1 . Main points

- Expenditure on research and development (R&D) performed by UK businesses grew by £822 million to £25.9 billion in 2019; this was an increase of 3.3% and was the lowest rate of growth since 2012.
- Pharmaceuticals was the product group that had the largest growth in expenditure on R&D in 2019; this was an increase of £306 million (6.9%) to £4.8 billion.
- The South East had the largest growth in the value of regional expenditure, increasing by £286 million (5.7%) to £5.3 billion in 2019.
- In 2019, total UK business employment in R&D grew by 11,000 to 263,000 full-time equivalents, an increase of 4.4% since 2018.
- In 2019, 76% of business R&D was funded by businesses' own funds (£19.6 billion) followed by overseas funding of 15% (£3.8 billion); businesses' own funds also had the largest growth in the value of funding of R&D in 2019 at £374 million, but this was the lowest growth since 2010.
- In 2019, business R&D consisted of civil R&D of 93% (£24.2 billion) and defence R&D of 7% (£1.7 billion); the split between civil and defence has changed over time with civil R&D accounting for 87% and defence R&D accounting for 13% in 2008.
- The share of R&D performed by UK-owned businesses increased to 52% in 2019 (£13.6 billion), the highest proportion since the 59% seen in 2010; this followed eight years when the share of R&D by UK-owned businesses was 50% or less.

## 2 . Business enterprise research and development data

### [Business enterprise research and development](#)

Dataset | Released 20 November 2020

Annual research and development (R&D ) spending and employment by UK businesses, including data by product category and industry, civil and defence, and regional spread.

### [Business enterprise research and development time series](#)

Dataset | Released 20 November 2020

Annual breakdown of R&D spending and employment by UK businesses across different market sectors.

## 3 . Measuring the data

The main source of estimates for this publication is the annual business enterprise research and development (BERD) survey. The data are collected by an annual survey of UK businesses that perform research and development (R&D).

In this statistical bulletin, R&D and related concepts follow internationally agreed standards defined by the Organisation for Economic Co-operation and Development (OECD), as published in the [Frascati Manual \(2015\)](#).

R&D is measured by the expenditure on R&D performed by a business or the funding received by a business for R&D work. These are often but not always the same. Performance is regarded as a more accurate measure than funding received by a business, as not all funds received may be used as intended. This release reports on R&D expenditure in UK businesses irrespective of the country of residence of the ultimate owner or users of the R&D produced.

All figures quoted are in current prices unless otherwise stated.

## Coronavirus (COVID-19)

The response rate for the 2019 BERD survey in Great Britain was 56%, which was lower than usual because of the coronavirus (COVID-19) pandemic. The rate for 2018 was 84%. This means that the estimates in this statistical bulletin are subject to more uncertainty than usual because of fewer responders on which to base the survey results.

The Office for National Statistics (ONS) has released a [public statement](#) on COVID-19 and the production of statistics. Specific queries must be directed to the [Media Relations Office](#).

## Quality

More quality and methodology information on strengths, limitations, appropriate uses, and how the data were created is available in the [UK Business Enterprise Research and Development QMI](#).

## 4 . Related links

### [Gross domestic expenditure on research and development, UK: 2018](#)

Bulletin | Released 2 April 2020

Annual estimates of research and development (R&D) performed and funded by business enterprise, higher education, government, UK Research and Innovation (UKRI), and private non-profit organisations.

### [Research and development expenditure by the UK government: 2018](#)

Bulletin | Released 15 June 2020

R&D and related expenditure by UK government departments, research councils and higher education funding councils. Formerly released as UK government expenditure on science, engineering and technology (SET).