

Statistical bulletin

UK Government Expenditure on Science, Engineering and Technology: 2013

Spending on science, engineering and technology (SET) activities in the UK at current and constant prices analysed by government sector, and the indicative contribution that the UK makes to EU research and development expenditure.

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Next release:
To be announced

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1. Main points

- In 2013, £10.9 billion was spent on Science, Engineering and Technology (SET) by the UK Government, an increase of 9% in current prices compared with 2012. Allowing for inflation (in constant prices), this was a 7% increase compared with 2012, and reversed the downward trend in SET expenditure since 2009
- The UK Research Councils contributed the most to expenditure on SET in 2013 at £3.6 billion, 33% of all expenditure on SET
- Between 2002 and 2013, defence expenditure on SET decreased by £2.1 billion in constant prices to £1.5 billion. Over the same period there was an increase in Research Councils' expenditure on SET of £1.0 billion
- The 2013 SET estimate of £10.9 billion consists of expenditure on Research and Development (R&D) of £9.8 billion, indicative UK contributions to European Union (EU) R&D expenditure of £0.8 billion, and the amount spent on knowledge transfer of £0.3 billion

2. Overview

Science, Engineering and Technology (SET) expenditure by the UK Government covers expenditure by government departments, Research Councils and Higher Education Funding Councils (HEFCs). It also includes indicative UK contributions to the European Union's (EU) research and development (R&D) expenditure. This should not be confused with the [UK Gross Domestic Expenditure on R&D, 2013 \(GERD\)](#) statistical bulletin, which only includes expenditure on R&D performed within UK borders, but by all sectors of the economy.

GERD only comprises estimates of expenditure on performing in-house R&D by each sector of the UK economy. However, whilst SET includes expenditure on performing in-house R&D, its largest component is expenditure on externally purchased/funding provided for R&D, along with EU budget contributions and knowledge transfer. This is explained in more detail in Background Note 1, which includes graphical representation of the comparable values of GERD and SET. R&D (in-house and purchased/funded) is the main component of the SET statistics.

SET statistics used to be published by the [Department for Business, Innovation and Skills \(BIS\)](#). We took over publishing the statistics for the first time in July 2014 in a new statistical bulletin. BIS included the year of publication in the SET Statistics title, not the year the estimates related to. The title of this SET statistical bulletin includes the reference period, which is 2013.

For the purpose of SET statistics (Tables 1 and 2), UK government expenditure on SET consists of:

- expenditure on in-house R&D, purchased R&D and other funding provided to external organisations for R&D (Tables 3 and 4)
- indicative UK contributions to the EU's R&D expenditure (Tables 1 to 4)
- knowledge transfer activities (including technology transfers) which are associated with research and experimental development, and contribute to the dissemination and application of scientific and technical knowledge. Knowledge transfer estimates which are included in the SET totals in Tables 1 and 2 are separately identified in Tables 5 and 6

Estimates of R&D are on a net expenditure basis and therefore are net of funding received.

This definition of SET excludes all other scientific, technical, commercial and financial steps that are often necessary for the successful development and marketing of new or improved products, processes or services.

Two types of estimates are presented in this release, current and constant prices. Estimates in current prices present the value of expenditure in cash terms. Constant price estimates have been adjusted for inflation between years using the Gross Domestic Product (GDP) deflator. This allows changes in the volume of government expenditure on SET to be examined on a more comparable basis over time.

This release also includes data tables sourced from our Labour Force Survey, referring to personnel associated with scientific and technical postgraduate education and training. These provide estimates of the number of persons with higher education qualifications, their employment status and their type of occupation.

In this statistical bulletin, R&D and related concepts follow internationally agreed standards defined by the [Organisation for Economic Cooperation and Development \(OECD\)](#), as published in the '[Frascati Manual](#)'. This manual defines R&D as "creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of man, culture and society and the use of this stock of knowledge to devise new applications".

The Frascati Manual was originally written by, and for, the experts in OECD member countries that collect and issue national estimates of R&D. The definitions provided in this manual are internationally accepted and serve as a common language for designing and evaluating science and technology policy.

Estimates in this release have the status of Official Statistics as they have not been assessed by the [UK Statistics Authority](#) (see Background Note 2).

The estimates in this bulletin and associated data tables relate to financial years. The main source of estimates for this publication is the annual Government Research and Development survey (GovERD).

3. Your views matter

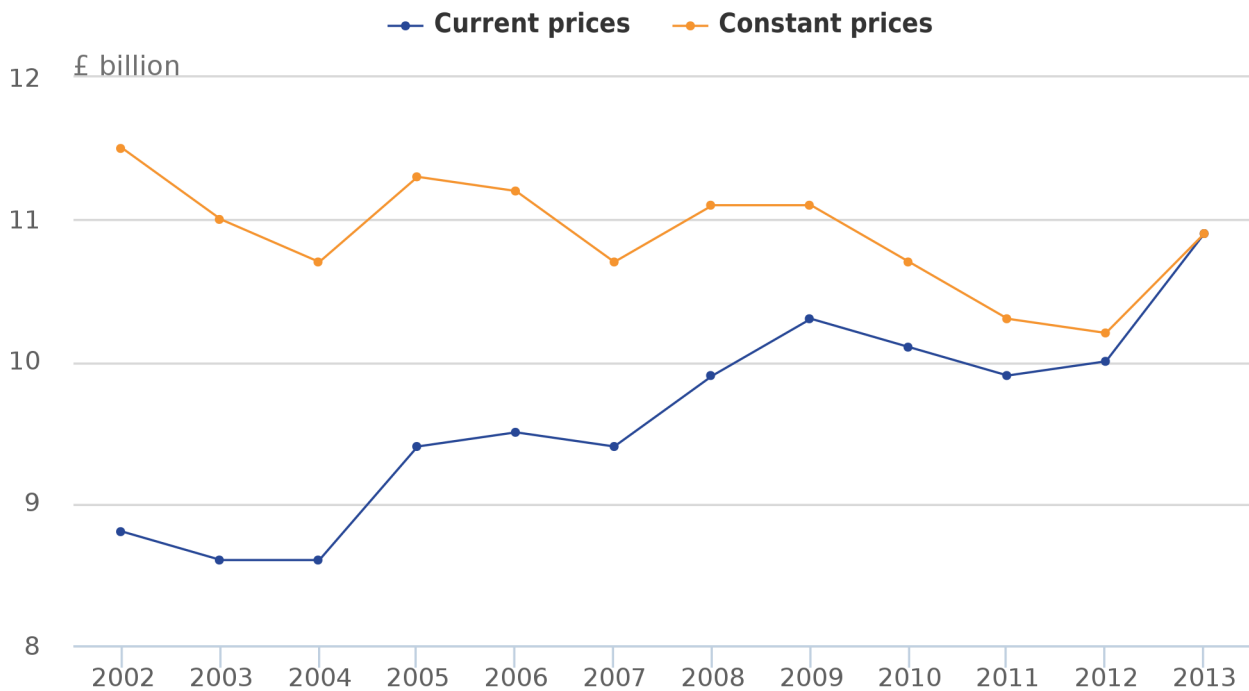
We are aiming to improve this release and its associated commentary. We would welcome any feedback you might have, and would be particularly interested in knowing how you make use of these estimates to inform your work. Please contact us via email: RandD@ons.gsi.gov.uk or telephone Cecil Prescott on +44 (0)1633 456767.

To gauge user opinion we are carrying out an [online survey](#), in order to gather feedback which will enable us to continue to improve this publication

4. SET expenditure 2013

In 2013, £10.9 billion was spent on SET by the UK Government, an increase of 9% in current prices compared with 2012. In constant prices, SET expenditure increased by 7% compared with 2012, the first annual increase since 2009. However, SET expenditure was still 5% below the £11.5 billion seen in 2002. The decrease in SET expenditure in constant prices from 2009 to 2012 was the result of decreases in expenditure by the HEFCs, Research Councils and the Ministry of Defence (Figures 1 and 4).

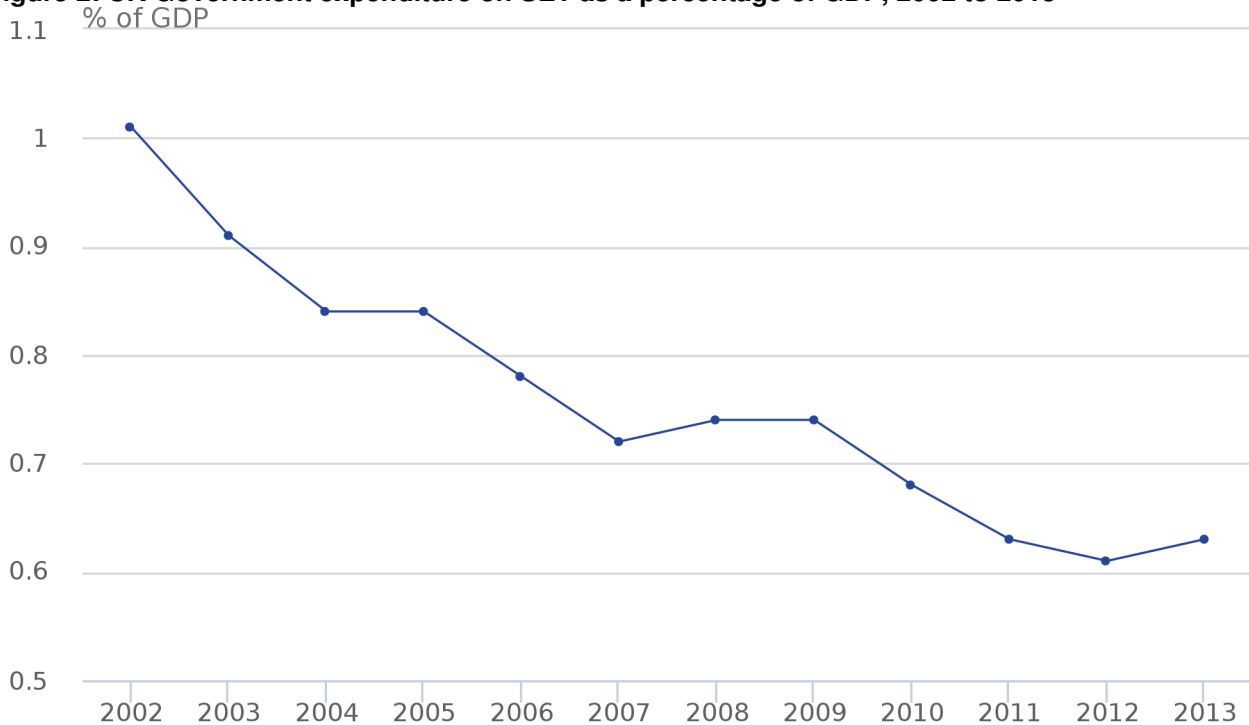
Figure 1: UK Government expenditure on SET, 2002 to 2013



Source: Office for National Statistics

Figure 2 shows UK government expenditure on SET as a percentage of GDP. Total expenditure on SET in 2013 represented 0.63% of GDP. This estimate has seen a downward trend in recent years but is broadly unchanged from 2011.

Figure 2: UK Government expenditure on SET as a percentage of GDP, 2002 to 2013



Source: Office for National Statistics

5. SET expenditure by sectors of the UK Government

The UK government's expenditure on SET can be categorised into expenditure by Research Councils, HEFCs, and also into civil and defence departments, all of which include elements of knowledge transfer. The indicative UK contributions to EU R&D expenditure provided by HM Treasury are also included in SET expenditure. Figure 3 shows the contribution each of these made to the 2013 total SET estimate. Almost a third (33%) of UK government expenditure on SET was by Research Councils, with civil departments and HEFCs contributing 25% and 21% respectively. The remaining 21% of the total SET estimate consisted of the Ministry of Defence (MoD) (14%) and contributions to EU R&D expenditure (7%).

Figure 3: The components of UK Government expenditure on SET, 2013

Office for National Statistics

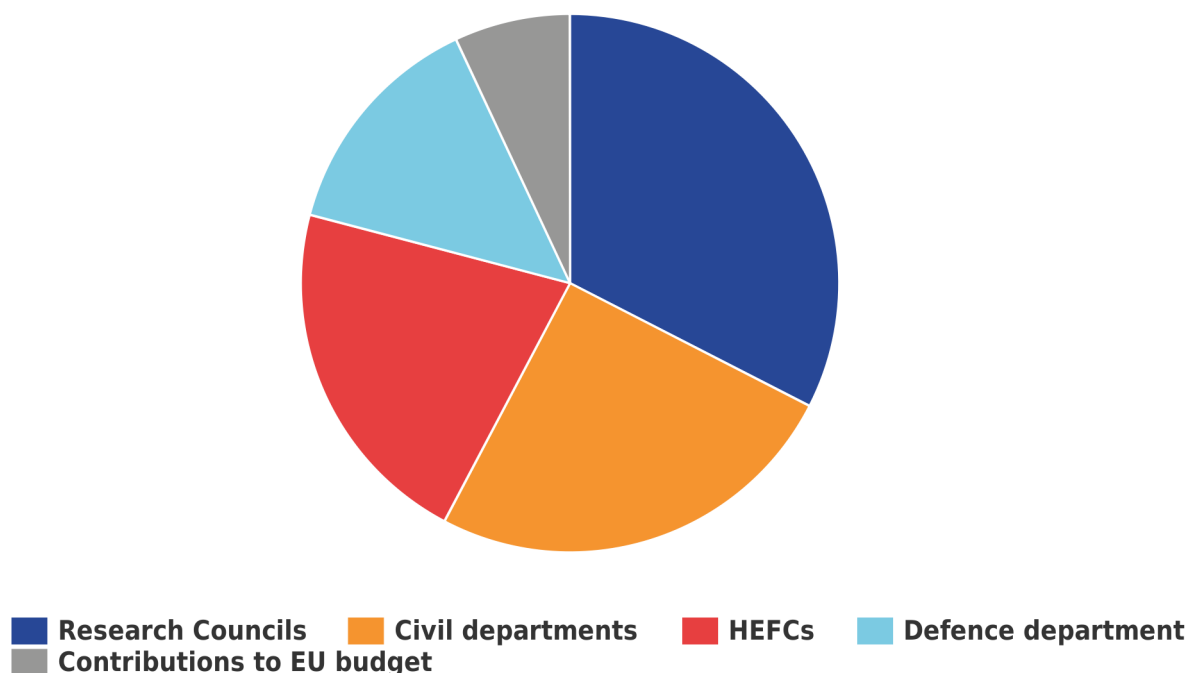
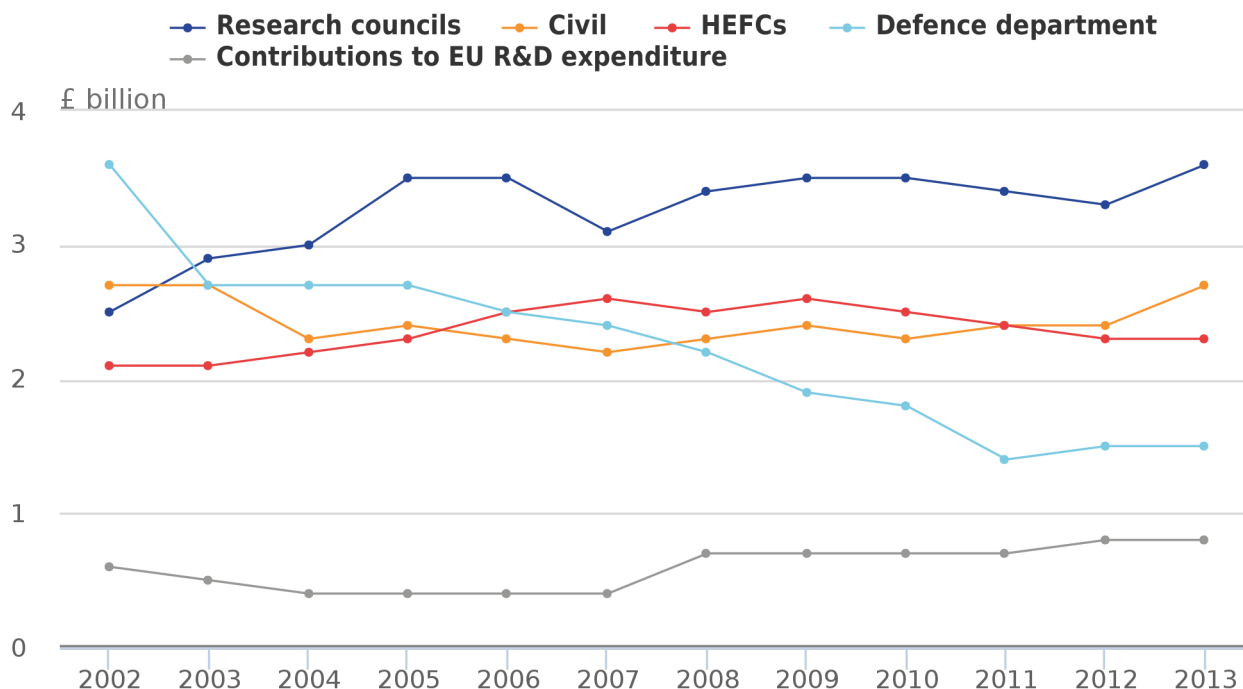


Figure 4 shows changes in SET components between 2002 and 2013 in constant prices. Defence expenditure decreased by £2.1 billion (58%), from £3.6 billion in 2002 to £1.5 billion in 2013. Over the same period there was an increase in Research Councils' expenditure on SET of £1.0 billion.

The defence estimate of £3.6 billion for 2002 was during a time of change for the MoD, with changing internal structures, and the introduction of new accounting systems, as well as a review to ensure that Frascati Manual definitions were being adhered to. Caution is therefore advised when using the SET defence estimate for this period, as it is likely to be overestimated. Please see Background Note 10 for more information on defence statistics.

The UK indicative contributions to EU R&D expenditure increased by 55% between 2007 and 2008 in constant prices. This rise related to member states' contributions being increased to meet the needs of the growing number of EU member states. They have remained around the same level since then.

Figure 4: The components of UK Government expenditure on SET in constant prices, 2002 to 2013



Source: Office for National Statistics

6. Research Councils' expenditure on SET in current prices increased by 11% in 2013

[Research Councils UK \(RCUK\)](#) is the strategic partnership of the UK's 7 Research Councils. Each year the Research Councils perform research covering the full spectrum of academic disciplines, from the medical and biological sciences to astronomy, physics, chemistry, engineering, social sciences, economics, environmental sciences and the arts and humanities.

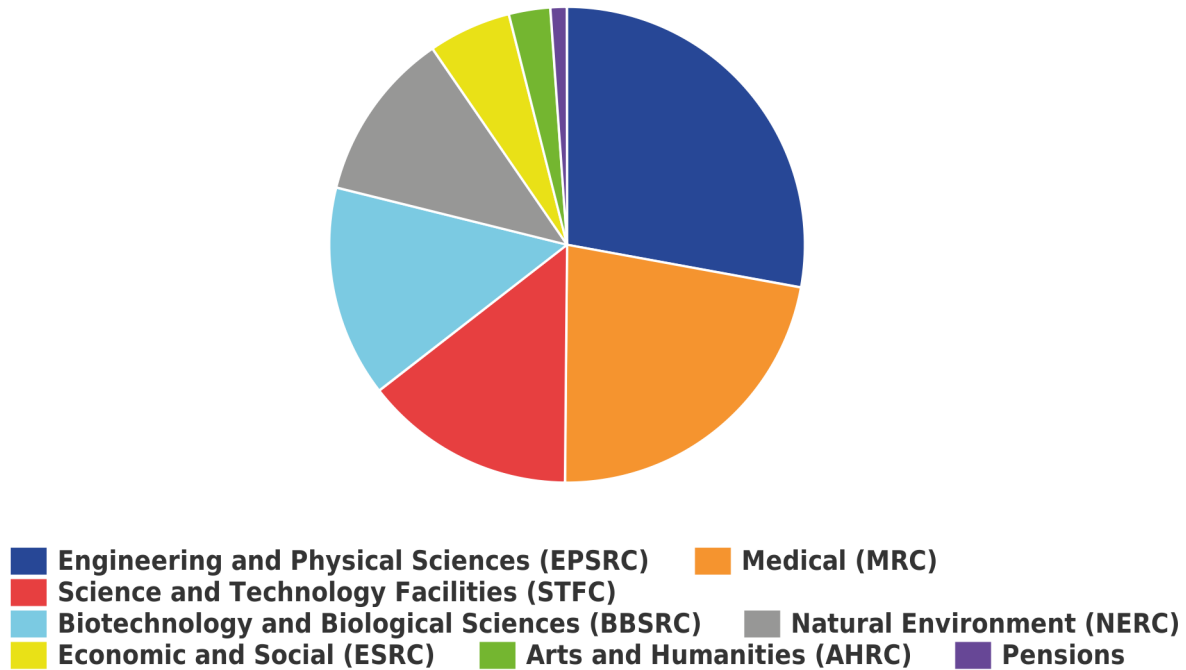
In 2013, expenditure on SET by Research Councils was £3.6 billion, an increase of £0.4 billion (11%) in current prices compared with 2012. Allowing for inflation (in constant prices), this was an increase of £0.3 billion (9%) compared with 2012.

The Research Council with the highest expenditure on SET at £1.0 billion in 2013 was the Engineering and Physical Sciences Research Council (EPSRC). This represented 28% of all Research Councils' expenditure on SET.

The Research Councils' estimated expenditure on SET includes their pension arrangements. These pension contributions are included separately on the data tables associated with this publication (Figure 5).

Figure 5: Breakdown of UK Research Councils' expenditure on SET, 2013

£3.6 billion



Source: Office for National Statistics

Notes:

1. EPSRC = Engineering and Physical Sciences Research Council; MRC = Medical Research Council; BBSRC = Biotechnology and Biological Sciences Research Council; STFC = Science and Technology Facilities Council; NERC = Natural Environment Research Council; ESRC = Economic and Social Research Council; AHRC = Arts and Humanities Research Council

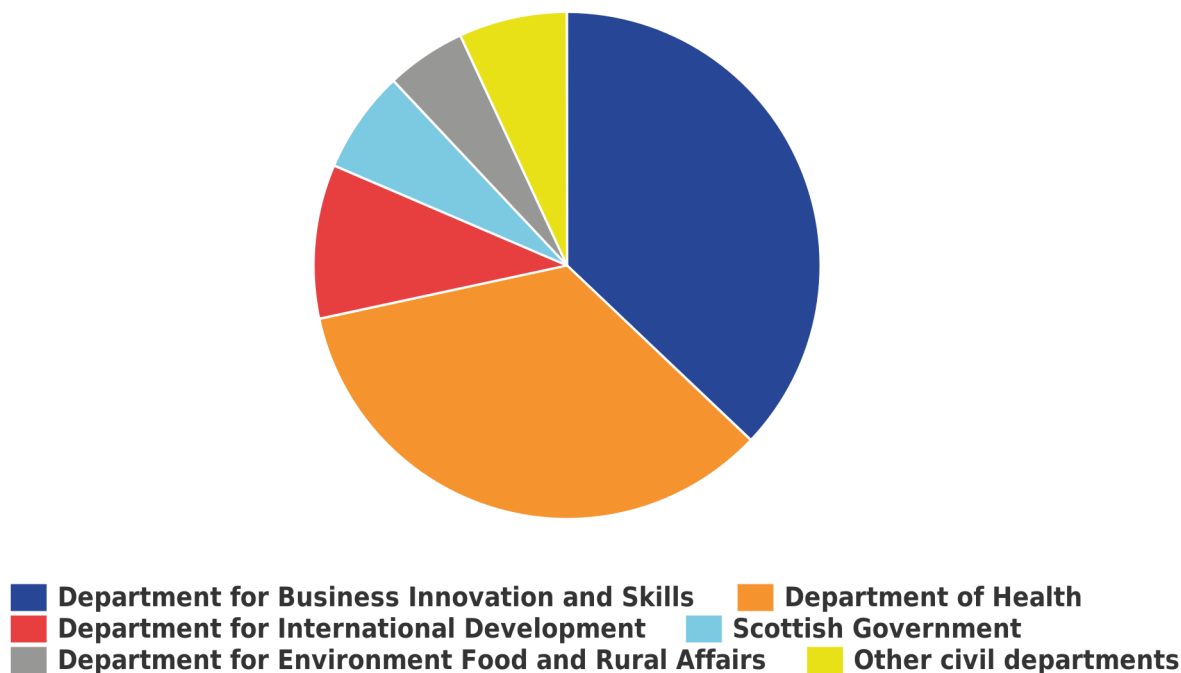
7. Civil departments' expenditure on SET in current prices increased by 15% in 2013

The UK Government owns many research institutes and laboratories that carry out R&D, which is the largest component of SET. It also uses a range of different suppliers with facilities to carry out research, both inside and outside the UK.

In 2013, expenditure by civil departments on SET was £2.7 billion, an increase of £0.4 billion (15%) in current prices compared with 2012. Five departments contributed £2.6 billion (93%) to the 2013 total. The civil department with the largest expenditure on SET was the [Department for Business, Innovation and Skills \(BIS\)](#) (£1.0 billion) which represented 37% of total civil departments' expenditure on SET (Figure 6).

Figure 6: Breakdown of UK Government civil departments' expenditure on SET, 2013

£2.7 billion



Source: Office for National Statistics

8. Higher Education Funding Councils' (HEFCs) expenditure on SET in current prices increased by 5% in 2013

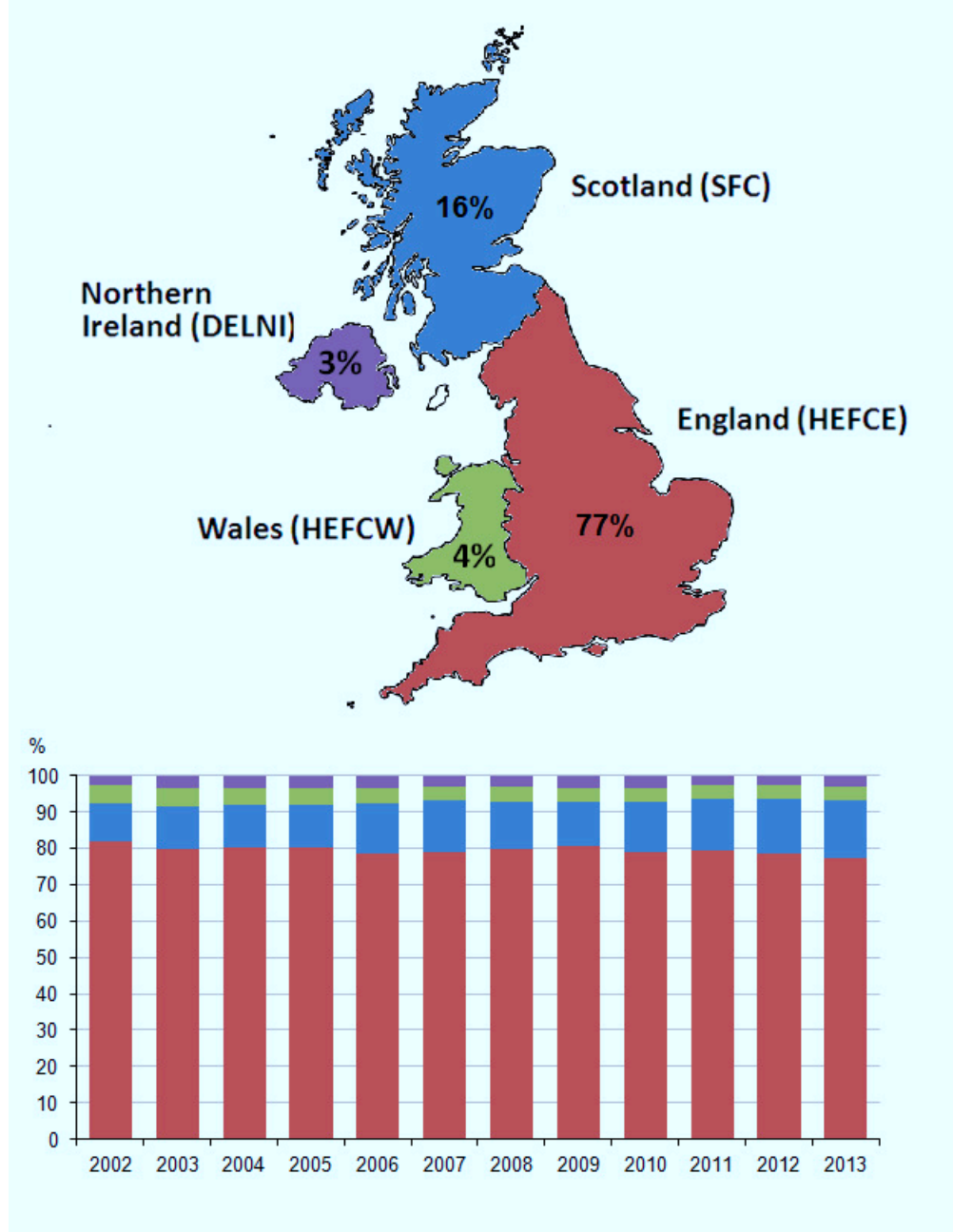
HEFCs promote and fund teaching and research in Higher Education Institutions (HEIs).

All HEIs (including universities) provide finance statistics to the [Higher Education Statistics Agency \(HESA\)](#). To estimate government funded R&D expenditure in HEIs, grant income is used as a proxy for expenditure. Please see Background Note 4 for more information.

In 2013, expenditure on SET by HEFCs was £2.3 billion, an increase of £0.1 billion (5%) in current prices compared with 2012. Allowing for inflation (in constant prices) this was an increase of £0.07 billion (3%) compared with 2012 and an increase of £0.2 billion (10%) since 2002. This was in contrast to the decrease from the peak of £2.6 billion in 2009 (Figure 4).

The funding council for England (HEFCE) provides the most research funding as it has the highest number of HEIs. In 2013, expenditure by HEFCE on SET was £1.8 billion. This was 77% of the total HEFCs' expenditure on SET, a similar level to recent years (Figure 7).

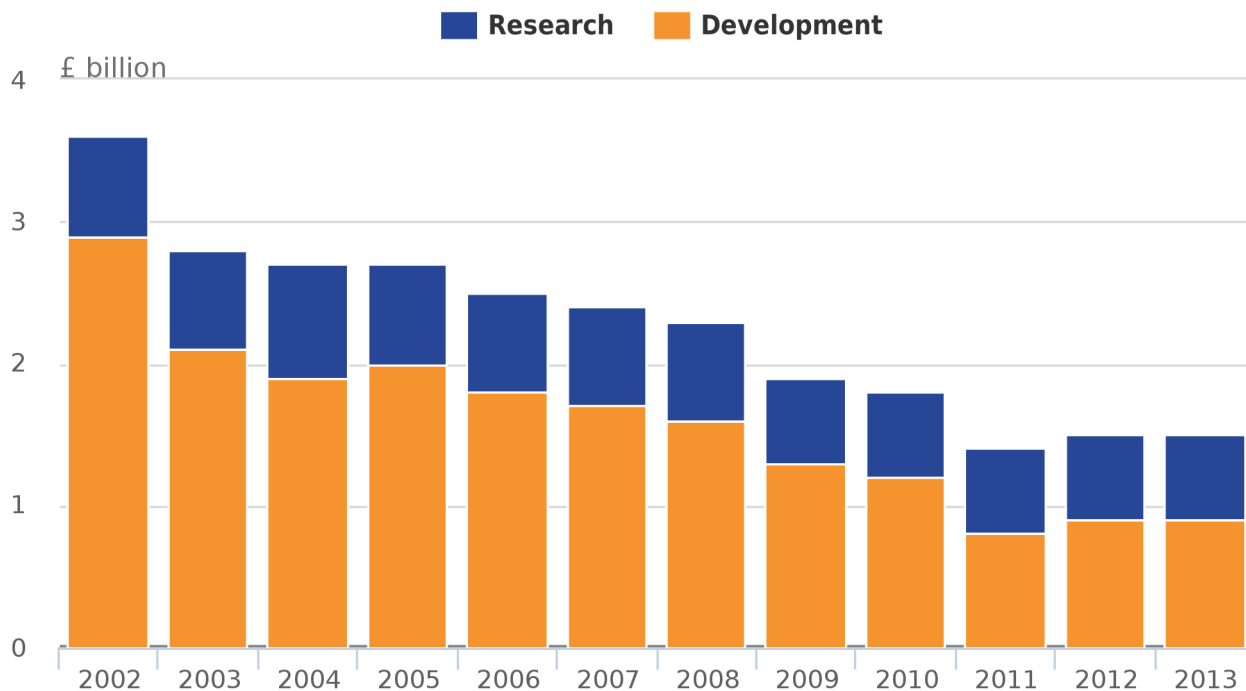
Figure 7: Higher Education Funding Councils' (HEFCs) expenditure on SET, 2002 to 2013



9. Ministry of Defence (MoD) expenditure on R&D in 2013 decreased by 58% in constant prices from 2002

In 2013, expenditure on SET by the MoD was £1.5 billion, an increase of £0.1 billion (4%) in current prices compared with 2012. Allowing for inflation (in constant prices) this was an increase of £0.03 billion (2%) compared with 2012, but a decrease of £2.1 billion (58%) since 2002. This was mainly due to a decrease in development expenditure of £2.0 billion, with some large projects moving from the development phase into the manufacturing stage of their programmes, and not being replaced with other high value projects (Figure 8).

Figure 8: Defence expenditure on SET by research and development, in constant prices, 2002 to 2013



Source: Office for National Statistics

10. Indicative UK contributions to EU R&D expenditure

In 2013, the indicative contributions that the UK made to EU R&D expenditure totalled £0.8 billion. This is an increase in constant prices of £0.2 billion (32%) since 2002. These figures were provided by HM Treasury and are broad estimates. This is because Member States' contributions are not made to individual expenditure programmes, but to the EU budget as a whole. They are therefore referred to as the "indicative UK contributions to EU R&D expenditure".

11. Background notes

1. Main issues specific to this bulletin

This is the second time that we have published the UK Science, Engineering and Technology (SET) Statistics. These estimates are official statistics which were previously published annually by the [Department for Business, Innovation and Skills \(BIS\)](#) using estimates provided by us. If you have any questions regarding the levels of SET expenditure by government departments, or any other queries related to science and technology policy, please contact James Achur at james.achur@bis.gsi.gov.uk or telephone +44 (0)20 7215 1331.

SET statistics are broader than just research and development (R&D), as they comprise government R&D expenditure on in-house R&D, purchased R&D and funding provided to external organisations for R&D, the indicative UK contributions to European Union (EU) R&D expenditure, knowledge transfer activities, and personnel associated with scientific and technical postgraduate education and training.

The main source of the estimates related to UK government departments, Research Councils and HEFCs, is our annual Government Research and Development survey (GovERD). The GovERD survey collects gross and net expenditure estimates, as well as funding received for R&D. Net expenditure is calculated as gross expenditure minus all funding received for R&D. This is to avoid any double counting. As previously mentioned, the estimates in the [UK Gross Domestic Expenditure on R&D, 2013 \(GERD\)](#) statistical bulletin relate to expenditure on performing in-house R&D by each sector of the UK economy, whereas SET focuses on the UK government financing for all R&D regardless of who undertakes the work.

HM Treasury provides the indicative contributions that the UK makes to EU R&D expenditure.

Estimates from the GovERD survey, of expenditure on R&D performed in the UK by government and Research Councils, are also included in the GERD statistical bulletin published earlier this year and these form part of the broader estimates of SET.

The main distinctions between this publication and GERD are:

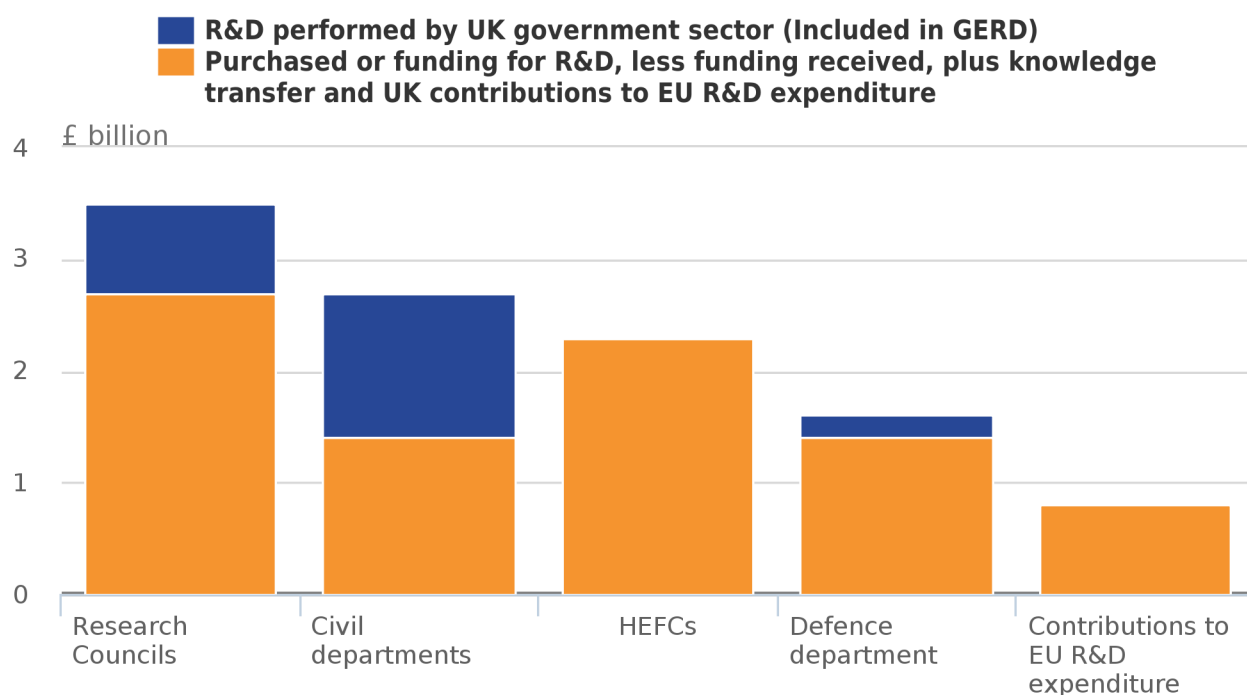
a) UK GERD includes only R&D expenditure which is carried out within the UK borders, and includes all sectors of the UK economy. UK government departments' expenditure on R&D, both as funder and performer in the UK, are included in GERD. It also includes all the other UK sectors both providing the funding and performing R&D in the UK.

b) SET includes all UK government expenditure on in-house R&D, purchased R&D and other funding provided to external organisations for R&D (both within the UK and overseas). As a result, the estimate of the R&D component of the UK government's expenditure on SET in 2013 (£9.8 billion) is just over 4 times larger than the UK government departments' expenditure on performing in-house R&D in the 2013 UK GERD (£2.3 billion). Figure 9 and Table 1 show the amount that each SET contributor spent in 2013 on in-house R&D performed in the UK and on total SET expenditure. Please note that HEFCs are only funders of R&D as they do not perform R&D themselves. Therefore the HEFCs' value in figure 9 is all classed as SET expenditure. Also, it is unknown where and how the UK contributions to EU R&D expenditure are spent, so none of these estimates are regarded as R&D performed in the UK.

c) SET additionally includes the UK's indicative contributions to EU R&D expenditure and expenditure on knowledge transfer. Knowledge transfer (including technology transfers) are activities designed to help the conveyance of ideas, research, results and skills between researchers, businesses and wider communities. These actions contribute to the dissemination and application of scientific and technical knowledge, including consultancy services, demonstration projects, and sharing information. For example developing partnerships, establishing forums for knowledge exchange, specialist training, and licensing.

Table 1 in the [UK GERD Statistical Bulletin](#) published on 20 March 2015, included the totals of expenditure on performing in-house R&D by UK government departments (civil and defence departments) and Research Councils of £1.5 billion and £0.8 billion respectively. This included funding from other UK sectors and overseas. The breakdowns of these high level estimates are available in this SET publication in Tables 12 and 13.

Figure 9: UK Government total expenditure on SET, including expenditure on R&D performed in the UK by the government sector, 2013



Source: Office for National Statistics

Notes:

1. The amount of expenditure on R&D performed by the UK government sector in Figure 9 includes funding from other sources

Table 1: UK Government total expenditure on SET, including expenditure on R&D performed in the UK by the government sector, 2013

	£ billion	
	R&D performed by UK government sector (Included in GERD)	SET expenditure
Research Councils	0.8	3.6
Civil departments	1.3	2.7
HEFCs	0.0	2.3
Defence department	0.2	1.5
Contributions to EU R&D expenditure	0.0	0.8
Total	2.3	10.9

Source: Office for National Statistics

SET also includes data tables on qualified scientists and engineers in the labour force by gender. These estimates are from our Labour Force survey and are categorised by type of qualification and occupation, from the population of Great Britain aged 16 to 64. Occupation is based on the [Standard Occupational Classification 2010 \(SOC 2010\)](#). See Tables 14 and 15 in the data section of this publication.

A quality report for this specific output is not yet available, but should be available by the end of August 2015. However, one is available for the UK GERD (137 Kb Pdf) . This contains relevant information as the majority of the SET estimates were collected via the GovERD survey, the same source as the government sector part of the UK GERD.

2. Official statistics

The [UK Statistics Authority](#) has not yet reviewed this publication, and these statistics are still designated as Official Statistics. This is a relatively new publication, and feedback from users in the coming months will help shape the future of this bulletin ready for UK Statistics Authority formal assessment.

3. Timeliness and punctuality

These official statistics were previously published by [BIS](#) in September each year. By publishing the 2013 SET Statistical Bulletin in July 2015, we have enabled access to these estimates two months earlier.

4. Completeness of coverage

The GovERD survey is conducted annually as a census survey. UK government departments, including Research Councils and HEFCs, are contacted to establish their department's structure and whether they carried out and/or funded R&D activities in the survey period. This ensures that the correct respondents receive the survey. Approximately 140 government departments and Research Councils are sent the questionnaire. Government departments are asked to include the R&D they performed as part of their estimates. These include estimates for R&D performed by local authorities and NHS trusts.

To estimate government funded R&D expenditure in Higher Education Institutions (HEIs), grant income is used as a proxy for expenditure.

The grants are classified into 3 groups:

- Research-oriented grants. These include the block research grant, plus other grants which are all deemed to be used for research
- Teaching-oriented grants. These are considered to be for teaching only activities, and are not included in the research expenditure estimate
- Other grants. These are not allocated specifically for research or teaching, but may contain elements of both to varying degrees. These are reviewed annually and an estimate is made of the research expenditure elements within each grant

The estimates of R&D expenditure were collected from the HEFCs for England, Scotland, Wales and the Department for Employment and Learning in Northern Ireland (DELNI).

5. Revisions

Revisions have been made to a small number of the estimates in 2011 and 2012. These were notified through the survey process by individual departments, and were mainly due to a combination of late returns and misreporting, which had little impact on the SET estimates.

6. Sampling variability

The estimates from the GovERD survey are based on a census of all UK government departments, Research Councils and HEFCs known to carry out and/or provide funding for R&D activities. They are not therefore subject to sampling errors, but may have some non-sampling errors. These include factors such as population coverage, misreporting and non-response bias. These errors are generally hard to quantify because of the difficulty in identifying the population of actual/likely R&D performers, and because of problems ensuring departments adhere to Frascati R&D definitions.

The response rate was 95% and included all the departments with the highest SET expenditure. Forecast data were used to estimate for the non responding departments, which accounted for approximately 3% of the total SET estimate.

7. Discontinuities in estimates

UK government departments and Research Councils change their reporting structures as governments and policy requirements change. These may have an impact on the comparability of individual departments' estimates over time, as responsibilities move between departments for specific projects.

8. General information

These points should be noted when examining the [data tables \(573 Kb Excel sheet\)](#) included in this release:

- there may be discrepancies between totals and the sum of their independently rounded parts
- caution should be taken when examining departmental time series. Please use the notes beneath each table which explain machinery of government changes
- launch Investment is a risk sharing government investment in the design of civil aerospace projects in the UK. The investment is repayable at a real rate of return, usually via levies on sales of the product. Launch Investment is only available to the civil aerospace sector, and is permitted under the Civil Aviation Act 1982, which charges the Secretary of State with “organising, carrying out and encouraging measures for the designing, development and production of civil aircraft”. These values have been negative every year since 2004. See [BIS Annual Report and Accounts 2013-14](#) for more information. The UK Government’s commitment to the UK civil aerospace sector is documented in the Aerospace Growth Partnership
- the categories as presented in Table 7 are defined by the UK Government’s primary purpose for the R&D activity, and not the intentions of the researchers or the end result. The primary purposes are: General research – all basic and applied R&D which advances knowledge for its own sake, and support for post graduate research studentships (PhDs); Government services – R&D relevant to any aspect of government service provision (all defence expenditure is included here); Policy research – R&D which government funds to create new knowledge which informs policy making (excluding government services and technology support), and for monitoring developments of significance for the welfare of the population; Technology support – applied and/or strategic R&D that advances the technology underpinning the UK economy

The EU supports R&D programmes in member states. The UK makes a positive net contribution to the EU budget and a proportion of this is assumed to be for R&D, and is included in SET data Tables 1 to 4. However, because no specific information is available on where and how these contributions are spent, they are excluded from the remaining SET tables.

The Organisation for Economic Cooperation and Development (OECD) terminology is used to classify the main sectors of the economy. Government corresponds to the General Government sector of the UK National Accounts.

Prior to 2007, VAT related to these estimates was collected separately, but has been excluded from these estimates. However, it should be noted that various amounts of VAT may have been included by some departments due to difficulties in separating out expenditure subject to VAT. Since the 2007 data collection, the GovERD survey has included additional information throughout, notifying respondents to exclude VAT from the estimates they provide.

9. Users and uses of SET estimates

There are users within and outside government who use these estimates to produce various analyses and to inform policy decisions.

- The [Department for Business, Innovation and Skills \(BIS\)](#) use SET and R&D estimates to assess policy impact and inform debate
- The [Welsh Government \(WG\)](#), [Scottish Government \(SG\)](#) and the [Department for Employment and Learning, Northern Ireland \(DELNI\)](#) use SET and GERD estimates as key indicators for measuring the performance of their respective economies within the UK, as well as to monitor and develop R&D policies which seek to increase R&D investment
- The [Research and Development Society](#) is a UK based organisation formed to promote and improve the understanding of R&D in all its forms. Its members include representatives from industry, government departments and agencies, universities and consultants. The Research and Development Society use SET estimates as a key source of information for understanding how much is being invested in R&D from the UK on an annual basis, and to inform wider debates about R&D

As this is a relatively new statistical bulletin relating to R&D statistics, we would appreciate your views. Do you make use of our annual estimates on the [UK Business Enterprise Research and Development \(BERD\)](#), [UK](#)

[GERD](#) or this bulletin? If yes, we would like to hear from you (RandD@ons.gsi.gov.uk) and understand how you make use of these statistics, and how we can seek to improve them. This will enable us, in the future, to better meet your needs as a user.

10. **Coherence**

UK government departments' R&D expenditure in the UK were included in the [UK GERD Statistical Bulletin](#) published on 20 March 2015.

The Ministry of Defence (MoD) publishes extensive defence statistics. Their expenditure on defence R&D is published as part of the [UK Defence Statistics Compendium](#).

11. **Social media**

Follow us on [Twitter](#) and receive up to date information about our statistics.

Like us on [Facebook](#) to receive our updates in your newsfeed and to post comments on our page.

12. **Special events**

We have published commentary, analysis and policy on 'Special Events' which may affect statistical outputs. For full details visit the [special events](#) page on our website.

13. **Release policy**

Details of the policy governing the release of new data are available by visiting www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html or from the Media Relations Office email: media.relations@ons.gsi.gov.uk

UK Government Expenditure on Science, Engineering and Technology, 2013

Published on 17 July 2015

[Notes to be used in conjunction with the datasets below.](#)

Please click on the links below to access the datasets:

- [1](#) UK Government Net Expenditure on Science, Engineering and Technology (SET) by Department: Current Prices, 2002 to 2013
- [2](#) UK Government Net Expenditure on Science, Engineering and Technology (SET) by Department: Constant Prices (2013 Prices), 2002 to 2013
- [3](#) UK Government Net Expenditure on R&D by Department: Current Prices, 2002 to 2013
- [4](#) UK Government Net Expenditure on R&D by Department: Constant Prices (2013 Prices), 2002 to 2013
- [5](#) UK Government Expenditure on Knowledge Transfer by Department: Current Prices, 2002 to 2013
- [6](#) UK Government Expenditure on Knowledge Transfer by Department: Constant Prices (2013 Prices), 2002 to 2013
- [7](#) Analysis of UK Government Net Expenditure on R&D by Primary Purpose and Department: 2013
- [8](#) UK Government Net Expenditure on R&D by Socio-Economic Objective, Percentage share: 2007 to 2013
- [9](#) Aggregate Destination of Total UK Government Expenditure on R&D: Current Prices, 2002 to 2013
- [10](#) Analysis of UK Government Net Expenditure on R&D by Frascati Type of Research Activity: Current Prices, 2002 to 2013
- [11](#) Analysis of UK Government Net Expenditure on R&D by Frascati Type of Research Activity: Constant Prices (2013 Prices), 2002 to 2013
- [12](#) Expenditure on R&D Performed in UK Government by Department: Current Prices, 2008 to 2013
- [13](#) Expenditure on R&D Performed in UK Government by Department: Constant Prices (2013 Prices), 2008 to 2013
- [14](#) Qualified Scientists and Engineers in the Labour Force, Three Months Ending December 2013: Great Britain, Not Seasonally Adjusted
- [15](#) Qualified Scientists and Engineers in the Labour Force by Gender, Three Months Ending December 2013: Great Britain, Not Seasonally Adjusted

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Next publication: July 2016

The following symbols and abbreviations are used throughout these reference tables;

- denotes nil, figures unavailable or too small to display.
- † denotes earliest data revision.

There may be discrepancies between totals and the sum of their independently rounded parts.

Notes:

1. The data in these tables and the associated statistical bulletin relate to financial years.
2. Two types of estimates are presented in this release, current and constant prices. Estimates in current prices present the value of expenditure in cash terms. Constant price estimates have been adjusted for inflation between years using the Gross Domestic Product (GDP) deflator. This allows changes in the volume of government R&D expenditure to be examined on a more comparable basis over time.
3. SET (Tables 1 and 2) includes R&D (Note 4), UK contributions to European Union (EU) R&D expenditure (Note 5) and Knowledge transfer (Note 6).
4. R&D (Tables 3 and 4) includes expenditure on in-house R&D, expenditure on externally purchased/funding of R&D and UK contributions to European Union (EU) R&D expenditure (Note 5).
5. The European Union (EU) supports R&D programmes in member states. The UK makes a positive net contribution to the EU budget, and a proportion of this is assumed to be for R&D, and is included in SET data Tables 1 to 4. However, because no specific information is available on where and how these contributions are spent, they are excluded from the remaining SET tables.
6. Knowledge transfer (including technology transfers) are activities designed to help the conveyance of ideas, research, results and skills between researchers, businesses and wider communities. These actions contribute to the dissemination and application of scientific and technical knowledge, including consultancy services, demonstration projects, and sharing information. For example developing partnerships, establishing forums for knowledge exchange, specialist training, and licensing. Knowledge transfer estimates which are included in the SET totals in Tables 1 and 2 are separately identified in Tables 5 and 6.

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1 UK GOVERNMENT NET EXPENDITURE ON SCIENCE, ENGINEERING AND TECHNOLOGY (SET) BY DEPARTMENT: 2002 to 2013

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Current prices

£ million

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Research Councils:												
Engineering and Physical Sciences (EPSRC)	501	425	489	555	643	694	734	756	845	854	920	991
Medical (MRC)	359	367	379	416	471	494	581	634	679	672	600	790
Science and Technology Facilities (STFC) ¹	-	-	-	-	-	552	590	607	563	542	467	511
Biotechnology and Biological Sciences (BBSRC)	242	268	277	322	366	373	393	444	435	488	496	509
Natural Environment (NERC)	205	295	317	373	361	364	396	454	449	417	392	408
Economic and Social (ESRC)	77	89	105	125	144	151	162	174	182	174 †	179	202
Arts and Humanities (AHRC) ²	-	-	-	69	82	88	94	89	92	99	97	100
Pensions ¹³	28	30	42	15	17	25	74	38	35	35	40	38
OST / DTI ³	284	452	440	578	508	-	-	-	-	-	-	-
Particle Physics and Astronomy (PPARC) ¹	249	272	295	334	329	-	-	-	-	-	-	-
Council for the Central Laboratory (CCLRC) ¹	3	62	64	84	92	-	-	-	-	-	-	-
TOTAL	1,947	2,259	2,408	2,871	3,014	2,742	3,024	3,196	3,280	3,280 †	3,192	3,550
Higher Education Funding Councils (HEFCs):												
England (HEFCE)	1,335	1,332	1,453	1,551	1,642	1,781	1,795	1,939	1,840	1,821	1,736	1,803
Scotland (SFC)	169	194	210	228	283	320	296	289	324	324	339	373
Wales (HEFCW)	83	83	84	84	87	88	91	94	90	82	80	86
Northern Ireland (DELNI)	40	56	57	66	74	63	65	81	75	59	57	65
TOTAL	1,626	1,665	1,804	1,928	2,085	2,252	2,247	2,403	2,328	2,285	2,212	2,328
Civil Departments:												
Business, Innovation and Skills (BIS) ^{1,3,14}	-	-	-	-	-	-	-	308	464	696	771	1,021
Health (DH including NHS)	515	593	629	628	673	712	787	846	883	904	925	952
of which: National Health Service (NHS)	461	533	575	583	623	661	730	796	847	866	892	916
International Development (DFID)	193	215	215	265	247	151	169	237	220	236	238	272
Scottish Government (SG)	139	157	176	209	214	221	218	219	177	169 †	177	178
Environment, Food and Rural Affairs (DEFRA)	232	257	273	288	299	202	198	185	157	161	144	141
Culture, Media and Sport (DCMS)	19	15	16	23	36	44	64	64	53	48	47	85
Transport (DfT) ⁴	53	70	59	61	59	66	64	80	54	35	38	44
Energy and Climate Change (DECC) ⁸	-	-	-	-	-	-	27	25	36	39	37	44
Welsh Government (WG) ⁵	46	31	32	33	10	12	11	11	10	29	29	29
Other Departments ⁹	37	43	41	38	42	38	38	34	31	31	26	26
Home Office (HO)	58	48	58	73	51	43	46	45	48	25	20	23
Northern Ireland Departments (NI) ⁶	18	21	21	21	22	23	22	22	21	20	22	22
Work and Pensions (DWP)	15	18	18	18	18	17	19	35	29	20	21	20
Education (DfE) ⁷	-	-	-	-	-	35	33	31	27	13	14	14
Ministry of Justice (MoJ) ⁹	-	-	-	-	2	11	14	11	8	7	9	8
Health and Safety Executive (HSE)	19	17	28	22	17	12	12	13	12	10	8	8
Food Standards Agency (FSA)	20	22	20	17	15	14	12	11	6	7	7	8
Communities and Local Government (DCLG) ⁴	27	30	29	27	30	25	28	29	16	7	9	7
Foreign and Commonwealth Office (FCO) ¹²	-	-	-	-	-	-	-	6	3	-	-	-
Education and Skills (DfES) ⁷	93	52	59	100	73	-	-	-	-	-	-	-

Current prices												£ million
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Business Enterprise and Regulatory Reform (BERR) ³	-	-	-	-	-	2	2	-	-	-	-	-
Trade and Industry (DTI) ³	409	334	322	300	265	-	-	-	-	-	-	-
BIS Science ³	-	-	-	-	-	420	438	83	-	-	-	-
Net Launch Investment ¹⁴	150	215	-127	-158	-154	-154	-128	-57	-91	-108	-150	-153
TOTAL	2,043	2,140	1,866	1,965	1,918	1,896	2,073	2,236	2,161	2,350 †	2,391	2,748
Ministry of Defence (MoD) ¹⁰												
of which:												
Research	516	524	639	598	632	635	584	575	534	553	565	586
Development	2,218	1,609	1,552	1,645	1,492	1,505	1,406	1,177	1,159	753	895	931
TOTAL	2,734	2,133	2,191	2,243	2,124	2,139	1,991	1,752	1,693	1,306	1,460	1,516
TOTAL SET	8,351	8,196	8,270	9,008	9,141	9,029	9,334	9,586	9,461	9,221 †	9,255	10,142
Indicative UK contributions to EU R&D expenditure ¹¹	440	390	325	365	374	374	593	668	647	661	751	756
GRAND TOTAL	8,791	8,586	8,595	9,373	9,515	9,403	9,927	10,255	10,108	9,883 †	10,006	10,898

Source: Office for National Statistics

- denotes nil, figures unavailable or too small to display.

† denotes earliest data revision.

1 In April 2007, CCLRC and PPARC merged to form Science and Technology Facilities Council (STFC). In 2011, STFCs subscription for European Space Agency (ESA) transferred to BIS Space.

2 AHRC was established in April 2005.

3 From July 2007, the Department for Trade and Industry (DTI) and the Office for Science and Technology (OST) were renamed Business Enterprise and Regulatory Reform (BERR) and the Department of Innovation, Universities and Skills (DIUS) respectively. In 2009, DIUS and BERR merged to form BIS. DIUS was renamed as BIS Science and BERR renamed as BIS. A number of departments previously reporting under DIUS transferred to BIS. From 2010, BIS Science reported under BIS. From 2011 includes all UK subscriptions to the European Space Agency (ESA), and some budget transfers from DEFRA and DfT.

4 The Department of Transport, Local Government and Regions (DTLR) split in June 2002 to form Department for Transport (DfT) and Office of Deputy Prime Minister (ODPM). The Department for Communities and Local Government (DCLG) was the successor to the ODPM in May 2006.

5 NHS Wales was included from 2010 and Museum Wales included from 2011.

6 In 2011, Department of the Environment was included for the first time. This will be used as a base year going forward. No back data available.

7 From June 2007 DfES was renamed Department for Children, Schools and Families (DCSF). From May 2010 DCSF was replaced with Department for Education (DfE). In 2011, expenditure fell due to a move to drive down spend across all budgets, and reflects Ministerial priorities.

8 DECC was created in October 2008.

9 Prior to 2006, Ministry of Justice figures were included under "Other departments".

10 These data comprise elements from both the Operating Cost Statement and the Balance Sheet in the Departmental Resource Accounts (DRAc). The funding received by MoD and its Trading Funds for expenditure on R&D are not necessarily spent on defence related R&D. The fall in 2011 net development expenditure was reported by the MoD's Defence Equipment and Support (DE&S) as a number of project teams moved from the development phase to manufacturing.

11 These indicative contributions are provided by HM Treasury.

12 Department was not surveyed prior to 2009.

13 Research Councils' pension contributions are included separately.

Constant prices (2013)

£ million

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Research Councils:												
Engineering and Physical Sciences (EPSRC)	655 †	544	606	669	756	793	817	820	893	886	940	991
Medical (MRC)	469 †	469	471	502	554	564	647	688	717	697	613	790
Science and Technology Facilities (STFC) ¹	-	-	-	-	-	630 †	657	658	595	562	477	511
Biotechnology and Biological Sciences (BBSRC)	315 †	343	343	388	430	426	438	482	459	506	506	509
Natural Environment (NERC)	267 †	377	394	450	425	416	440	493	474	432	401	408
Economic and Social (ESRC)	101 †	114	130	151	169	173	181	189	192	181	183	202
Arts and Humanities (AHRC) ²	-	-	-	83 †	96	100	104	97	97	103	99	100
Pensions ¹³	37 †	38	53	18	20	28	82	41	37	37	41	38
OST / DTI ³	370 †	579	546	698	597	-	-	-	-	-	-	-
Particle Physics and Astronomy (PPARC) ¹	325 †	348	366	404	387	-	-	-	-	-	-	-
Council for the Central Laboratory (CCLRC) ¹	3 †	79	80	101	108	-	-	-	-	-	-	-
TOTAL	2,543 †	2,890	2,988	3,465	3,541	3,130	3,367	3,469	3,464	3,404	3,260	3,550
Higher Education Funding Councils (HEFCs):												
England (HEFCE)	1,743 †	1,704	1,802	1,872	1,929	2,033	1,999	2,105	1,944	1,890	1,773	1,803
Scotland (SFC)	221 †	248	261	275	332	365	330	314	342	336	347	373
Wales (HEFCW)	108 †	106	104	101	102	101	102	102	95	85	82	86
Northern Ireland (DELNI)	52 †	72	70	79	86	72	72	88	79	61	58	65
TOTAL	2,124 †	2,130	2,238	2,327	2,450	2,571	2,503	2,609	2,459	2,371	2,259	2,328
Civil Departments:												
Business, Innovation and Skills (BIS) ^{1,3,14}	-	-	-	-	-	-	-	334 †	490	722	787	1,021
Health (DH including NHS)	672 †	759	780	758	790	813	876	918	933	939	944	952
of which: National Health Service (NHS)	602 †	682	713	704	732	755	813	864	895	899	911	916
International Development (DFID)	252 †	275	267	320	290	173	188	258	232	245	243	272
Scottish Government (SG)	182 †	201	219	253	251	253	243	237	187	176	180	178
Environment, Food and Rural Affairs (DEFRA)	303 †	328	338	348	352	231	221	201	166	167	147	141
Culture, Media and Sport (DCMS)	25 †	19	19	28	43	50	72	70	56	49	48	85
Transport (DfT) ⁴	70 †	89	73	73	69	76	71	86	57	36	39	44
Energy and Climate Change (DECC) ⁸	-	-	-	-	-	-	30 †	27	38	41	38	44
Welsh Government (WG) ⁵	60 †	40	39	40	11	14	12	12	10	30	29	29
Other Departments ⁹	48 †	55	51	46	50	43	42	37	32	32	27	26
Home Office (HO)	75 †	62	72	88	59	49	51	48	51	26	20	23
Northern Ireland Departments (NI) ⁶	23 †	27	26	25	26	26	25	24	22	21	22	22
Work and Pensions (DWP)	20 †	24	22	22	21	19	21	38	31	21	21	20
Education (DfE) ⁷	-	-	-	-	-	40 †	37	33	29	14	14	14
Ministry of Justice (MoJ) ⁹	-	-	-	-	2 †	13	15	12	8	7	9	8
Health and Safety Executive (HSE)	25 †	22	34	26	20	14	14	14	13	11	8	8
Food Standards Agency (FSA)	27 †	28	25	20	18	16	13	12	6	7	7	8
Communities and Local Government (DCLG) ⁴	35 †	39	35	33	35	29	31	31	17	7	9	7
Foreign and Commonwealth Office (FCO) ¹²	-	-	-	-	-	-	-	6 †	3	-	-	-
Education and Skills (DfES) ⁷	122 †	67	74	121	85	-	-	-	-	-	-	-
Business Enterprise and Regulatory Reform (BERR) ³	-	-	-	-	-	2 †	2	-	-	-	-	-
Trade and Industry (DTI) ³	534 †	428	399	362	311	-	-	-	-	-	-	-
BIS Science ³	-	-	-	-	-	479 †	487	90	-	-	-	-

Constant prices (2013)											£ million	
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Net Launch Investment ¹⁴	196 †	276	-158	-191	-181	-175	-143	-62	-96	-112	-154	-153
TOTAL	2,668 †	2,738	2,315	2,371	2,254	2,164	2,308	2,427	2,283	2,439	2,442	2,748
Ministry of Defence (MoD) ¹⁰												
of which:												
Research	673 †	671	793	722	743	724	651	624	564	574	577	586
Development	2,896 †	2,058	1,926	1,986	1,753	1,718	1,566	1,277	1,224	781	914	931
TOTAL	3,570 †	2,729	2,718	2,707	2,495	2,442	2,217	1,901	1,788	1,355	1,491	1,516
TOTAL SET	10,904 †	10,487	10,259	10,871	10,740	10,307	10,394	10,406	9,994	9,569	9,452	10,142
Indicative UK contributions to EU R&D expenditure ¹¹	574 †	499	403	440	440	427	660	726	683	686	767	756
GRAND TOTAL	11,478 †	10,987	10,662	11,311	11,179	10,734	11,054	11,131	10,677	10,255	10,219	10,898
2013 = 100											Source: Office for National Statistics	
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
GDP deflator used to convert current prices to constant prices	76.589 †	78.148	80.612	82.864	85.111	87.601	89.800	92.122	94.671	96.366	97.921	100

- denotes nil, figures unavailable or too small to display.

† denotes earliest data revision.

1 In April 2007, CCLRC and PPARC merged to form Science and Technology Facilities Council (STFC). In 2011, STFCs subscription for European Space Agency (ESA) transferred to BIS Space.

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5 NHS Wales was included from 2010 and Museum Wales included from 2011.

6 In 2011, Department of the Environment was included for the first time. This will be used as a base year going forward. No back data available.

7 From June 2007 DfES was renamed Department for Children, Schools and Families (DCSF). From May 2010 DCSF was replaced with Department for Education (DfE). In 2011, expenditure fell due to a move to drive down spend across all budgets, and reflects Ministerial priorities.

8 DECC was created in October 2008.

9 Prior to 2006, Ministry of Justice figures were included under "Other departments".

10 These data comprise elements from both the Operating Cost Statement and the Balance Sheet in the Departmental Resource Accounts (DRAc). The funding received by MoD and its Trading Funds for expenditure on R&D are not necessarily spent on defence related R&D. The fall in 2011 net development expenditure was reported by the MoD's Defence Equipment and Support (DE&S) as a number of project teams moved from the development phase to manufacturing.

11 These indicative contributions are provided by HM Treasury.

12 Department was not surveyed prior to 2009.

13 Research Councils' pension contributions are included separately.

14 Please note for the purpose of this analysis Launch Investment is shown separately from BIS.

Current prices

£ million

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Research Councils:												
Engineering and Physical Sciences (EPSRC)	479	405	480	553	643	694	734	754	802	807	793	870
Medical (MRC)	358	361	376	416	471	494	581	634	679	672	600	790
Science and Technology Facilities (STFC) ¹	-	-	-	-	-	548	583	599	556	535	456	502
Biotechnology and Biological Sciences (BBSRC)	240	267	275	320	364	369	383	432	421	472	478	489
Natural Environment (NERC)	195	278	296	363	351	350	381	435	442	407	378	393
Economic and Social (ESRC)	74	83	98	116	133	147	158	170	177	168 †	170	194
Arts and Humanities (AHRC) ²	-	-	-	58	70	86	91	87	89	95	90	92
Pensions ¹³	27	28	40	15	17	24	72	37	34	34	37	36
OST / DTI ³	244	388	356	503	413	-	-	-	-	-	-	-
Particle Physics and Astronomy (PPARC) ¹	249	272	295	334	329	-	-	-	-	-	-	-
Council for the Central Laboratory (CCLRC) ¹	3	62	64	84	92	-	-	-	-	-	-	-
TOTAL	1870	2143	2281	2763	2883	2714	2984	3148	3201	3189 †	3001	3366

Higher Education Funding Councils (HEFCs):

England (HEFCE)	1,335	1,332	1,453	1,551	1,642	1,781	1,795	1,939	1,840	1,821	1,736	1,803
Scotland (SFC)	169	194	210	228	283	302	276	281	299	296	312	342
Wales (HEFCW)	83	83	84	84	87	88	91	94	90	82	80	86
Northern Ireland (DELNI)	40	56	57	66	74	63	65	81	75	59	57	65
TOTAL	1,626	1,665	1,804	1,928	2,085	2,234	2,227	2,395	2,303	2,257	2,185	2,297

Civil Departments:

Business, Innovation and Skills (BIS) ^{1,3,14}	-	-	-	-	-	-	-	266	410	646	729	981
Health (DH including NHS)	514	593	629	628	673	712	786	845	883	904	924	952
of which: National Health Service (NHS)	461	533	575	583	623	661	730	796	847	866	892	916
International Development (DFID)	193	215	215	265	247	134	149	225	209	226	229	262
Scottish Government (SG)	115	129	131	137	132	137	141	154	167	158 †	163	164
Environment, Food and Rural Affairs (DEFRA)	173	181	191	201	194	190	187	181	153	157	141	138
Culture, Media and Sport (DCMS)	19	15	16	23	36	39	47	46	47	42	45	79
Transport (DfT) ⁴	47	59	48	51	57	62	60	68	53	34	38	43
Energy and Climate Change (DECC) ⁸	-	-	-	-	-	-	27	25	35	39	37	44
Welsh Government (WG) ⁵	35	31	32	33	10	12	10	10	9	8	11	11
Other Departments ⁹	24	30	28	25	30	36	37	33	29	30	26	25
Home Office (HO)	57	48	58	73	50	42	44	43	42	24	19 †	22
Northern Ireland Departments (NI) ⁶	17	21	21	21	22	22	22	21	20	19	21	21
Work and Pensions (DWP)	15	18	18	18	18	17	19	35	28	20	21	20
Education (DfE) ⁷	-	-	-	-	-	35	33	31	27	13	14	14
Ministry of Justice (MoJ) ⁹	-	-	-	-	2	10	12	9	7	7	8	7
Health and Safety Executive (HSE)	16	14	25	19	14	12	12	13	12	10	8	8
Food Standards Agency (FSA)	20	22	20	17	15	14	11	11	5	6	7	7
Communities and Local Government (DCLG) ⁴	27	30	29	27	30	25	27	28	16	7	9	7
Foreign and Commonwealth Office (FCO) ¹²	-	-	-	-	-	-	-	6	3	-	-	-
Education and Skills (DfES) ⁷	93	52	59	100	73	-	-	-	-	-	-	-

Current prices												£ million
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Business Enterprise and Regulatory Reform (BERR) ³	-	-	-	-	-	1	1	-	-	-	-	-
Trade and Industry (DTI) ³	331	255	275	243	204	-	-	-	-	-	-	-
BIS Science ³	-	-	-	-	-	393	408	83	-	-	-	-
Net Launch Investment ¹⁴	150	215	-127	-158	-154	-154	-128	-57	-91	-108	-150	-153
TOTAL	1,849	1,929	1,666	1,721	1,652	1,738	1,905	2,076	2,064	2,244 †	2,297	2,653
Ministry of Defence (MoD) ¹⁰												
of which:												
Research	516	524	639	598	632	635	584	575	534	553	565	586
Development	2,218	1,609	1,552	1,645	1,492	1,505	1,406	1,177	1,159	753	895	931
TOTAL	2,734	2,133	2,191	2,243	2,124	2,139	1,991	1,752	1,693	1,306	1,460	1,516
TOTAL R&D	8,079	7,869	7,942	8,656	8,745	8,825	9,107	9,371	9,260	8,995 †	8,943	9,832
Indicative UK contributions to EU R&D expenditure ¹¹	440	390	325	365	374	374	593	668	647	661	751	756
GRAND R&D TOTAL	8,519	8,260	8,267	9,021	9,119	9,199	9,699	10,039	9,907	9,657 †	9,693	10,588

Source: Office for National Statistics

- denotes nil, figures unavailable or too small to display.

† denotes earliest data revision.

1 In April 2007, CCLRC and PPARC merged to form Science and Technology Facilities Council (STFC). In 2011, STFCs subscription for European Space Agency (ESA) transferred to BIS Space.

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4 The Department of Transport, Local Government and Regions (DTLR) split in June 2002 to form Department for Transport (DfT) and Office of Deputy Prime Minister (ODPM). The Department for Communities and Local Government (DCLG) was the successor to the ODPM in May 2006.

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12 Department was not surveyed prior to 2009.

13 Research Councils' pension contributions are included separately.

14 Please note for the purpose of this analysis Launch Investment is shown separately from BIS.

Constant prices (2013)

£ million

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Research Councils:												
Engineering and Physical Sciences (EPSRC)	626 †	519	596	667	755	792	817	819	847	837	809	870
Medical (MRC)	467 †	462	466	502	554	564	647	688	717	697	613	790
Science and Technology Facilities (STFC) ¹	-	-	-	-	-	626 †	649	651	587	555	465	502
Biotechnology and Biological Sciences (BBSRC)	314 †	341	341	387	427	421	427	469	445	489	488	489
Natural Environment (NERC)	255 †	355	368	438	412	400	424	472	467	423	386	393
Economic and Social (ESRC)	97 †	107	122	140	157	168	176	184	187	174	174	194
Arts and Humanities (AHRC) ²	-	-	-	70 †	83	98	101	94	94	98	92	92
Pensions ¹³	35 †	36	49	18	20	28	81	40	36	35	38	36
OST / DTI ³	318 †	496	442	607	485	-	-	-	-	-	-	-
Particle Physics and Astronomy (PPARC) ¹	325 †	348	366	404	387	-	-	-	-	-	-	-
Council for the Central Laboratory (CCLRC) ¹	3 †	79	80	101	108	-	-	-	-	-	-	-
TOTAL	2,441 †	2,742	2,829	3,334	3,388	3,098	3,323	3,417	3,381	3,309	3,065	3,366
Higher Education Funding Councils (HEFCs):												
England (HEFCE)	1,743 †	1,704	1,802	1,872	1,929	2,033	1,999	2,105	1,944	1,890	1,773	1,803
Scotland (SFC)	221 †	248	261	275	332	344	307	305	316	307	318	342
Wales (HEFCW)	108 †	106	104	101	102	101	102	102	95	85	82	86
Northern Ireland (DELNI)	52 †	72	70	79	86	72	72	88	79	61	58	65
TOTAL	2,124 †	2,130	2,238	2,327	2,450	2,550	2,480	2,600	2,433	2,343	2,231	2,297
Civil Departments:												
Business, Innovation and Skills (BIS) ^{1,3,14}	-	-	-	-	-	-	-	288 †	433	671	744	981
Health (DH including NHS)	672 †	759	780	758	790	812	876	918	932	938	944	952
of which: National Health Service (NHS)	602 †	682	713	704	732	754	812	864	895	899	911	916
International Development (DFID)	252 †	275	267	320	290	153	166	245	220	234	234	262
Scottish Government (SG)	151 †	164	163	165	155	156	157	167	176	164	166	164
Environment, Food and Rural Affairs (DEFRA)	226 †	232	237	242	228	216	208	197	162	163	144	138
Culture, Media and Sport (DCMS)	25 †	19	19	28	43	44	52	50	49	43	46	79
Transport (DfT) ⁴	62 †	75	60	61	67	71	67	74	56	36	39	43
Energy and Climate Change (DECC) ⁸	-	-	-	-	-	-	30 †	27	37	40	38	44
Welsh Government (WG) ⁵	45 †	40	39	40	11	14	12	11	10	9	11	11
Other Departments ⁹	32 †	39	35	31	35	41	41	36	31	31	26	25
Home Office (HO)	75 †	61	72	88	59	48	49	47	45	25	19	22
Northern Ireland Departments (NI) ⁶	22 †	26	26	25	26	25	24	23	21	20	21	21
Work and Pensions (DWP)	20 †	24	22	22	21	19	21	38	30	21	21	20
Education (DfE) ⁷	-	-	-	-	-	40 †	37	33	29	14	14	14
Ministry of Justice (MoJ) ⁹	-	-	-	-	2 †	11	14	10	7	7	8	7
Health and Safety Executive (HSE)	21 †	18	31	22	17	14	14	14	13	11	8	8
Food Standards Agency (FSA)	27 †	28	25	20	18	16	13	12	6	6	7	7
Communities and Local Government (DCLG) ⁴	35 †	39	35	33	35	29	30	31	16	7	9	7
Foreign and Commonwealth Office (FCO) ¹²	-	-	-	-	-	-	-	6 †	3	-	-	-
Education and Skills (DfES) ⁷	122 †	67	74	121	85	-	-	-	-	-	-	-
Business Enterprise and Regulatory Reform (BERR) ³	-	-	-	-	-	1 †	1	-	-	-	-	-
Trade and Industry (DTI) ³	433 †	327	341	293	239	-	-	-	-	-	-	-
BIS Science ³	-	-	-	-	-	449 †	455	90	-	-	-	-

Constant prices (2013)											£ million	
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Net Launch Investment ¹⁴	196 †	276	-158	-191	-181	-175	-143	-62	-96	-112	-154	-153
TOTAL	2,415 †	2,469	2,066	2,077	1,942	1,984	2,122	2,254	2,180	2,328	2,346	2,653
Ministry of Defence (MoD) ¹⁰												
of which:												
Research	673 †	671	793	722	743	724	651	624	564	574	577	586
Development	2,896 †	2,058	1,926	1,986	1,753	1,718	1,566	1,277	1,224	781	914	931
TOTAL	3,570 †	2,729	2,718	2,707	2,495	2,442	2,217	1,901	1,788	1,355	1,491	1,516
TOTAL R&D	10,549 †	10,070	9,852	10,446	10,275	10,074	10,141	10,172	9,782	9,335	9,132	9,832
Indicative UK contributions to EU R&D expenditure ¹¹	574 †	499	403	440	440	427	660	726	683	686	767	756
GRAND TOTAL	11,123 †	10,569	10,255	10,886	10,714	10,501	10,801	10,898	10,464	10,021	9,899	10,588
2013 = 100												

Source: Office for National Statistics

- denotes nil, figures unavailable or too small to display.

† denotes earliest data revision.

1 In April 2007, CCLRC and PPARC merged to form Science and Technology Facilities Council (STFC). In 2011, STFCs subscription for European Space Agency (ESA) transferred to BIS Space.

2 AHRC was established in April 2005.

3 From July 2007, the Department for Trade and Industry (DTI) and the Office for Science and Technology (OST) were renamed Business Enterprise and Regulatory Reform (BERR) and the Department of Innovation, Universities and Skills (DIUS) respectively. In 2009, DIUS and BERR merged to form BIS. DIUS was renamed as BIS Science and BERR renamed as BIS. A number of departments previously reporting under DIUS transferred to BIS. From 2010, BIS Science reported under BIS. From 2011 includes all UK subscriptions to the European Space Agency (ESA), and some budget transfers from DEFRA and DfT.

4 The Department of Transport, Local Government and Regions (DTLR) split in June 2002 to form Department for Transport (DfT) and Office of Deputy Prime Minister (ODPM). The Department for Communities and Local Government (DCLG) was the successor to the ODPM in May 2006.

5 NHS Wales was included from 2010 and Museum Wales included from 2011.

6 In 2011, Department of the Environment was included for the first time. This will be used as a base year going forward. No back data available.

7 From June 2007 DfES was renamed Department for Children, Schools and Families (DCSF). From May 2010 DCSF was replaced with Department for Education (DfE). In 2011, expenditure fell due to a move to drive down spend across all budgets, and reflects Ministerial priorities.

8 DECC was created in October 2008.

9 Prior to 2006, Ministry of Justice figures were included under "Other departments".

10 These data comprise elements from both the Operating Cost Statement and the Balance Sheet in the Departmental Resource Accounts (DRAc). The funding received by MoD and its Trading Funds for expenditure on R&D are not necessarily spent on defence related R&D. The fall in 2011 net development expenditure was reported by the MoD's Defence Equipment and Support (DE&S) as a number of project teams moved from the development phase to manufacturing.

11 These indicative contributions are provided by HM Treasury.

12 Department was not surveyed prior to 2009.

13 Research Councils' pension contributions are included separately.

14 Please note for the purpose of this analysis Launch Investment is shown separately from BIS.

Current prices

£ million

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Research Councils:												
Engineering and Physical Sciences (EPSRC)	22	19	9	2	1	1	-	1	43	47	128	121
Medical (MRC)	1	6	4	-	-	-	-	-	-	-	-	-
Science and Technology Facilities (STFC) ¹	-	-	-	-	-	4	7	7	8	7	12	9
Biotechnology and Biological Sciences (BBSRC)	1	1	1	1	2	4	10	13	13	16	18	20
Natural Environment (NERC)	10	17	21	10	11	14	15	19	7	9	14	15
Economic and Social (ESRC)	3	5	7	9	10	4	4	4	5	6	9	8
Arts and Humanities (AHRC) ²	-	-	-	11	11	2	3	3	3	4	7	8
Pensions ¹²	1	2	3	-	-	-	1	1	-	1	3	3
OST / DTI ³	40	65	84	75	95	-	-	-	-	-	-	-
Particle Physics and Astronomy (PPARC) ¹	-	-	-	-	-	-	-	-	-	-	-	-
Council for the Central Laboratory (CCLRC) ¹	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	78	116	128	108	130	29	40	47	79	91	191	184

Higher Education Funding Councils (HEFCs):

England (HEFCE)	-	-	-	-	-	-	-	-	-	-	-	-
Scotland (SFC)	-	-	-	-	-	18	21	8	25	28	28	31
Wales (HEFCW)	-	-	-	-	-	-	-	-	-	-	-	-
Northern Ireland (DELNI)	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	-	-	-	-	-	18	21	8	25	28	28	31

Civil Departments:

Business, Innovation and Skills (BIS) ^{1,3,13}	-	-	-	-	-	-	-	42	54	50	42	40
Health (DH including NHS)	-	-	-	-	-	1	1	1	-	-	1	-
of which: National Health Service (NHS)	-	-	-	-	-	-	-	-	-	-	-	-
International Development (DFID)	-	-	-	-	-	18	19	12	11	10	9	10
Scottish Government (SG)	24	29	45	72	81	84	77	65	11	11	14	13
Environment, Food and Rural Affairs (DEFRA)	59	76	81	88	105	12	11	4	4	3	3	3
Culture, Media and Sport (DCMS)	-	-	-	-	-	5	18	18	6	6	2	5
Transport (DfT) ⁴	6	11	11	10	2	5	4	12	1	1	1	1
Energy and Climate Change (DECC) ⁸	-	-	-	-	-	-	-	-	-	-	-	-
Welsh Government (WG) ⁵	12	-	-	-	-	-	1	1	1	21	18	18
Other Departments ⁹	13	13	13	13	13	1	1	1	1	1	1	1
Home Office (HO)	-	-	-	-	-	1	2	1	5	1	1	1
Northern Ireland Departments (NI) ⁶	-	-	-	-	-	1	1	1	1	1	1	1
Work and Pensions (DWP)	-	-	-	-	-	-	-	-	-	-	-	-
Education (DfE) ⁷	-	-	-	-	-	-	-	-	-	-	-	-
Ministry of Justice (MoJ) ⁹	-	-	-	-	-	1	1	2	1	-	-	-
Health and Safety Executive (HSE)	3	3	3	3	3	-	-	-	-	-	-	-
Food Standards Agency (FSA)	-	-	-	-	-	-	-	-	-	-	-	1
Communities and Local Government (DCLG) ⁴	-	-	-	-	-	-	-	-	-	-	-	-
Foreign and Commonwealth Office (FCO) ¹¹	-	-	-	-	-	-	-	-	-	-	-	-
Education and Skills (DfES) ⁷	-	-	-	-	-	-	-	-	-	-	-	-
Business Enterprise and Regulatory Reform (BERR) ³	-	-	-	-	-	1	1	-	-	-	-	-
Trade and Industry (DTI) ³	77	79	47	57	61	-	-	-	-	-	-	-
BIS Science ³	-	-	-	-	-	27	30	-	-	-	-	-

Current prices	£ million											
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Net Launch Investment ¹³	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	194	211	200	243	266	158	167	160	97	107	94	95
Ministry of Defence (MoD) ¹⁰	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	-	-	-	-	-	-	-	-	-	-	-	-
GRAND TOTAL	272	326	328	352	396	205	228	215	201	226	313	310

Source: Office for National Statistics

- denotes nil, figures unavailable or too small to display.

- 1 In April 2007, CCLRC and PPARC merged to form Science and Technology Facilities Council (STFC). In 2011, STFCs subscription for European Space Agency (ESA) transferred to BIS Space.
- 2 AHRC was established in April 2005.
- 3 From July 2007, the Department for Trade and Industry (DTI) and the Office for Science and Technology (OST) were renamed Business Enterprise and Regulatory Reform (BERR) and the Department of Innovation, Universities and Skills (DIUS) respectively. In 2009, DIUS and BERR merged to form BIS. DIUS was renamed as BIS Science and BERR renamed as BIS. A number of departments previously reporting under DIUS transferred to BIS. From 2010, BIS Science reported under BIS. From 2011 includes all UK subscriptions to the European Space Agency (ESA), and some budget transfers from DEFRA and DfT.
- 4 The Department of Transport, Local Government and Regions (DTLR) split in June 2002 to form Department for Transport (DfT) and Office of Deputy Prime Minister (ODPM). The Department for Communities and Local Government (DCLG) was the successor to the ODPM in May 2006.
- 5 NHS Wales was included from 2010 and Museum Wales included from 2011.
- 6 In 2011, Department of the Environment was included for the first time. This will be used as a base year going forward. No back data available.
- 7 From June 2007 DfES was renamed Department for Children, Schools and Families (DCSF). From May 2010 DCSF was replaced with Department for Education (DfE). In 2011, expenditure fell due to a move to drive down spend across all budgets, and reflects Ministerial priorities.
- 8 DECC was created in October 2008.
- 9 Prior to 2006, Ministry of Justice figures were included under "Other departments".
- 10 These data comprise elements from both the Operating Cost Statement and the Balance Sheet in the Departmental Resource Accounts (DRAc). The funding received by MoD and its Trading Funds for expenditure on R&D are not necessarily spent on defence related R&D. The fall in 2011 net development expenditure was reported by the MoD's Defence Equipment and Support (DE&S) as a number of project teams moved from the development phase to manufacturing.

Constant prices (2013)	£ million											
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Business Enterprise and Regulatory Reform (BERR) ³	-	-	-	-	-	1 [†]	1	-	-	-	-	-
Trade and Industry (DTI) ³	101 [†]	101	58	69	71	-	-	-	-	-	-	-
BIS Science ³	-	-	-	-	-	31 [†]	33	-	-	-	-	-
Net Launch Investment ¹³	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	253[†]	269	248	294	312	180	186	173	102	111	96	95
Ministry of Defence (MoD) ¹⁰	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	-	-	-	-	-	-	-	-	-	-	-	-
GRAND TOTAL	355[†]	418	407	425	465	233	254	234	212	234	319	310

2013 = 100

Source: Office for National Statistics

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
GDP deflator used to convert current prices to constant prices	76.589 [†]	78.148	80.612	82.864	85.111	87.601	89.800	92.122	94.671	96.366	97.921	100

- denotes nil, figures unavailable or too small to display.

[†] denotes earliest data revision.

1 In April 2007, CCLRC and PPARC merged to form Science and Technology Facilities Council (STFC). In 2011, STFCs subscription for European Space Agency (ESA) transferred to BIS Space.

2 AHRC was established in April 2005.

3 From July 2007, the Department for Trade and Industry (DTI) and the Office for Science and Technology (OST) were renamed Business Enterprise and Regulatory Reform (BERR) and the Department of Innovation, Universities and Skills (DIUS) respectively. In 2009, DIUS and BERR merged to form BIS. DIUS was renamed as BIS Science and BERR renamed as BIS. A number of departments previously reporting under DIUS transferred to BIS. From 2010, BIS Science reported under BIS. From 2011 includes all UK subscriptions to the European Space Agency (ESA), and some budget transfers from DEFRA and DfT.

4 The Department of Transport, Local Government and Regions (DTLR) split in June 2002 to form Department for Transport (DfT) and Office of Deputy Prime Minister (ODPM). The Department for Communities and Local Government (DCLG) was the successor to the ODPM in May 2006.

5 NHS Wales was included from 2010 and Museum Wales included from 2011.

6 In 2011, Department of the Environment was included for the first time. This will be used as a base year going forward. No back data available.

7 From June 2007 DfES was renamed Department for Children, Schools and Families (DCSF). From May 2010 DCSF was replaced with Department for Education (DfE). In 2011, expenditure fell due to a move to drive down spend across all budgets, and reflects Ministerial priorities.

8 DECC was created in October 2008.

9 Prior to 2006, Ministry of Justice figures were included under "Other departments".

10 These data comprise elements from both the Operating Cost Statement and the Balance Sheet in the Departmental Resource Accounts (DRAc). The funding received by MoD and its Trading Funds for expenditure on R&D are not necessarily spent on defence related R&D. The fall in 2011 net development expenditure was reported by the MoD's Defence Equipment and Support (DE&S) as a number of project teams moved from the development phase to manufacturing.

11 Department was not surveyed prior to 2009.

7 ANALYSIS OF UK GOVERNMENT NET EXPENDITURE ON R&D BY PRIMARY PURPOSE AND DEPARTMENT: 2013

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£ million

	General Research	Government Services	Policy Research	Technology Research	Total R&D
Research Councils:					
Engineering and Physical Sciences (EPSRC)	240	-	-	630	870
Medical (MRC)	612	110	20	48	790
Science and Technology Facilities (STFC)	435	-	-	67	502
Biotechnology and Biological Sciences (BBSRC)	475	-	-	15	489
Natural Environment (NERC)	277	8	77	31	393
Economic and Social (ESRC)	92	-	102	-	194
Arts and Humanities (AHRC)	92	-	-	-	92
TOTAL¹	2,222	119	199	791	3,330
Higher Education Funding Councils (HEFCs):					
England (HEFCE)	1,803	-	-	-	1,803
Scotland (SFC)	342	-	-	-	342
Wales (HEFCW)	86	-	-	-	86
Northern Ireland (DELNI)	65	-	-	-	65
TOTAL	2,297	-	-	-	2,297
Civil Departments:					
Business, Innovation and Skills (BIS) ²	110	-	10	707	827
Health (DH including NHS)	916	7	29	-	952
of which: National Health Service (NHS)	916	-	-	-	916
International Development (DFID)	-	-	262	-	262
Scottish Government (SG)	73	5	53	33	164
Environment, Food and Rural Affairs (DEFRA)	3	45	90	-	138
Culture, Media and Sport (DCMS)	59	4	15	2	79
Transport (DfT)	-	1	8	34	43
Energy and Climate Change (DECC)	18	8	7	11	44
Welsh Government (WG)	4	2	5	-	11
Other Departments	-	6	6	12	25
Home Office (HO)	1	14	8	-	22
Northern Ireland Departments (NI)	9	2	9	1	21
Work and Pensions (DWP)	-	-	20	-	20
Education (DfE)	-	-	14	-	14
Ministry of Justice (MoJ)	-	5	3	-	7
Health and Safety Executive (HSE)	-	-	8	-	8
Food Standards Agency (FSA)	-	-	7	-	7
Communities and Local Government (DCLG)	-	-	7	-	7
Foreign and Commonwealth Office (FCO)	-	-	-	-	-
TOTAL	1,192	98	563	800	2,653
Ministry of Defence (MoD)	-	1,516	-	-	1,516
TOTAL	-	1,516	-	-	1,516
GRAND TOTAL	5,711	1,733	762	1,591	9,797

Source: Office for National Statistics

- denotes nil, figures unavailable or too small to display.

¹ For the purpose of this analysis Research Councils expenditure for Pensions have been excluded as they cannot be attributed to type of research.

8

UK GOVERNMENT NET EXPENDITURE ON R&D BY SOCIO-ECONOMIC OBJECTIVE, PERCENTAGE SHARE: 2007 to 2013

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Current prices	£ million						
	2007	2008	2009	2010	2011	2012	2013
TOTAL	8,825	9,107	9,371	9,260	8,995 †	8,943	9,832
Per cent							
TOTAL	100	100	100	100	100	100	100
Agriculture	3	3	4	3	4	4	4
Industrial production and technology	-	1	2	1	2	1	2
Energy	1	1	1	1	2	2	2
Transport, telecommunication, other infrastructure	1	1	1	1	3	3	3
Environment	2	3	3	3	3	3	3
Health	17	18	19	21	22	22	22
Education	1	1	1	1	-	-	-
Exploration and exploitation of the earth	3	3	3	3	3	3	3
General advancement of knowledge: R&D financed from General University Funds	25	24	26	25	25	24	23
Exploration and exploitation of space	2	2	2	2	3	4	4
Defence	24	22	19	18	15	16	16
Culture, recreation, religion and mass media	2	2	2	2	2	2	2
Political and social systems, structures and processes	1	2	2	2	1	1	1
General advancement of knowledge: R&D financed from other sources	18	18	17	18	13	13	13

Source: Office for National Statistics

- denotes nil, figures unavailable or too small to display.

† denotes earliest data revision.

9

AGGREGATE DESTINATION OF TOTAL UK GOVERNMENT EXPENDITURE ON R&D: 2002 to 2013

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Current prices

£ million

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
TOTAL R&D												
Total Gross Expenditure ¹	8,728	8,476	8,598	9,353	9,465	9,584	9,852	10,263	10,141	9,800 †	9,784	10,700
of which:												
Within government departments ²	1,974	2,213	2,322	2,448	2,467	2,452	2,530	2,668	2,660	2,562 †	2,399	2,541
Higher Education Institutions	3,105	3,224	3,400	3,868	4,146	4,136	4,366	4,661	4,608	4,631 †	4,500	4,798
Private Industry/Public corporations	3,196	2,327	2,058	2,225	2,124	2,080	1,783	1,727	1,935	1,535	1,849 †	2,091
Overseas	327	575	648	609	531	705	946	916	676	720 †	688	748
Others	127	137	170	203	197	211	228	290	262	353 †	348	523
Less receipts ³	649	606	656	697	720	759	746	892	881	805 †	842	868
TOTAL NET EXPENDITURE	8,079	7,869	7,942	8,656	8,745	8,825	9,107	9,371	9,260	8,995 †	8,943	9,832
CIVIL R&D												
Civil Gross Expenditure ¹	5938	6276	6338	7035	7253	7363	7779	8424	8360	8452 †	8281	9140
of which:												
Within government departments ²	1,685	1,833	1,960	2,077	2,106	2,173	2,260	2,376	2,433	2,399 †	2,245	2,371
Higher Education Institutions	3,097	3,214	3,384	3,863	4,132	4,131	4,361	4,657	4,604	4,628 †	4,500	4,797
Private Industry/Public corporations	719	737	427	416	372	428	430	609	576	493	604 †	782
Overseas	310	356	397	476	446	429	500	493	485	580 †	584	667
Others	127	137	169	203	197	203	228	290	261	353 †	348	523
Less receipts ³	593	539	587	623	632	678	663	805	793	763 †	798	824
CIVIL NET EXPENDITURE	5,345	5,737	5,751	6,413	6,621	6,686	7,116	7,619	7,567	7,690 †	7,483	8,316
DEFENCE R&D												
Defence Gross Expenditure ¹	2,790	2,200	2,260	2,318	2,212	2,220	2,074	1,839	1,782	1,348	1,504	1,560
of which:												
Within government departments ²	288	380	362	371	361	279	269	293	227	163	154	169
Higher Education Institutions	8	10	16	5	13	5	5	5	4	3	-	1
Private Industry/Public corporations	2,477	1,590	1,631	1,809	1,752	1,652	1,353	1,118	1,359	1,042	1,246	1,309
Overseas	17	219	251	132	85	276	446	423	191	140	104	81
Others	-	-	-	-	-	8	1	-	1	-	-	-
Less receipts ³	56	68	69	75	88	81	83	87	89	42	44	44
DEFENCE NET EXPENDITURE	2,734	2,133	2,191	2,243	2,124	2,139	1,991	1,752	1,693	1,306	1,460	1,516

Source: Office for National Statistics

- denotes nil, figures unavailable or too small to display.

† denotes earliest data revision.

1 Gross expenditure is the amount of R&D expenditure within and outside government departments, which includes Research Council Institutes and Local Authorities.

2 Includes Research Council Institutes and Local Authorities.

3 Receipts refer to all funding received outside the reporting department which has been spent on R&D.

Current prices

£ million

		2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
RESEARCH COUNCILS R&D¹													
Basic	- pure	567	756	766	1,019	953	739	817	808	790	746 †	701	755
	- orientated	665	689	747	853	980	1,010	1,114	1,206	1,218	1,209 †	1,182	1,304
Applied	- strategic	513	554	594	686	755	733	754	838	896	890 †	768	905
	- specific	80	89	116	166	157	167	186	206	213	255 †	263	309
Experimental Development		16	26	19	24	21	40	41	53	50	54	49	57
TOTAL NET EXPENDITURE		1,842	2,115	2,241	2,748	2,866	2,689	2,912	3,111	3,166	3,155 †	2,964	3,330
CIVIL R&D²													
Basic	- pure	34	66	69	43	46	105	100	123	122	109 †	116	120
	- orientated	52	76	77	46	39	82	216	138	101	129 †	90	99
Applied	- strategic	754	760	787	890	831	670	620	669	697	681 †	740	784
	- specific	882	937	629	616	641	794	896	1,084	801	997 †	937	1,057
Experimental Development		127	89	104	126	95	87	73	61	344	328 †	413	592
CIVIL NET EXPENDITURE		1,849	1,929	1,666	1,721	1,652	1,738	1,905	2,076	2,064	2,244 †	2,297	2,653
DEFENCE R&D													
Basic	- pure	-	-	-	-	-	-	-	-	-	-	-	-
	- orientated	-	-	-	-	-	-	-	-	-	-	-	-
Applied	- strategic	127	129	75	30	35	21	13	29	21	17	59 †	89
	- specific	389	395	564	568	598	614	571	546	513	536	506 †	497
Experimental Development		2,218	1,609	1,552	1,645	1,492	1,505	1,406	1,177	1,159	753	895	931
DEFENCE NET EXPENDITURE		2,734	2,133	2,191	2,243	2,124	2,139	1,991	1,752	1,693	1,306	1,460	1,516

Source: Office for National Statistics

- denotes nil, figures unavailable or too small to display.

† denotes earliest data revision.

1 For the purpose of this analysis Research Councils expenditure for Pensions have been excluded.

2 For the purpose of this analysis Higher Education Funding Councils are excluded.

Constant prices (2013)

£ million

		2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
RESEARCH COUNCILS R&D¹													
Basic	- pure	741 †	968	950	1,230	1,120	844	910	877	834	774	716	755
	- orientated	869 †	882	926	1,029	1,151	1,153	1,240	1,309	1,287	1,254	1,207	1,304
Applied	- strategic	670 †	709	737	828	887	837	839	910	946	924	785	905
	- specific	104 †	114	143	200	185	190	208	224	225	265	269	309
Experimental Development		21 †	34	24	29	24	45	45	57	53	56	50	57
TOTAL NET EXPENDITURE		2,406 †	2,707	2,780	3,316	3,368	3,070	3,242	3,377	3,345	3,274	3,027	3,330
CIVIL R&D²													
Basic	- pure	44 †	84	86	52	55	119	112	134	128	113	119	120
	- orientated	68 †	98	95	55	46	93	241	150	107	134	92	99
Applied	- strategic	985 †	972	976	1,074	976	765	690	726	736	707	755	784
	- specific	1,151 †	1,200	780	744	753	907	997	1,177	846	1,034	957	1,057
Experimental Development		166 †	114	129	152	111	100	82	67	363	340	422	592
CIVIL NET EXPENDITURE		2,415 †	2,469	2,066	2,077	1,942	1,984	2,122	2,254	2,180	2,328	2,346	2,653
DEFENCE R&D													
Basic	- pure	-	-	-	-	-	-	-	-	-	-	-	-
	- orientated	-	-	-	-	-	-	-	-	-	-	-	-
Applied	- strategic	165 †	165	93	36	41	24	15	31	22	18	60	89
	- specific	508 †	505	699	685	702	701	636	593	542	556	517	497
Experimental Development		2,896 †	2,058	1,926	1,986	1,753	1,718	1,566	1,277	1,224	781	914	931
DEFENCE NET EXPENDITURE		3,570 †	2,729	2,718	2,707	2,495	2,442	2,217	1,901	1,788	1,355	1,491	1,516
2013 = 100										Source: Office for National Statistics			
GDP deflator used to convert current prices to constant prices		76.589 †	78.148	80.612	82.864	85.111	87.601	89.800	92.122	94.671	96.366	97.921	100

- denotes nil, figures unavailable or too small to display.

† denotes earliest data revision.

1 For the purpose of this analysis Research Councils expenditure for Pensions have been excluded.

2 For the purpose of this analysis Higher Education Funding Councils are excluded.

Current prices	£ million					
	2008	2009	2010	2011	2012	2013
Research Councils:						
Engineering and Physical Sciences (EPSRC)	-	-	-	-	-	-
Medical (MRC)	320	340	394	348	278	246
Science and Technology Facilities (STFC)	304	275	228	304	254	297
Biotechnology and Biological Sciences (BBSRC) ¹	173	202	219	87	-	-
Natural Environment (NERC)	214	261	283	285	263	262
Economic and Social (ESRC)	8	7	6	- †	-	-
Arts and Humanities (AHRC)	-	-	-	-	-	-
Pensions ⁴	23	11	10	10	9	8
TOTAL	1,041	1,097	1,141	1,035 †	804	813
Civil Departments:						
Business, Innovation and Skills (BIS) ^{2,6}	-	83	85	112	123	134
Health (DH including NHS)	36	24	30	26	28	36
International Development (DFID)	4	5	6	6	7	8
Scottish Government (SG)	55	57	55	51	58	57
Environment, Food and Rural Affairs (DEFRA)	107	109	91	91	86	99
Culture, Media and Sport (DCMS)	37	39	39	38	54	93
Transport (DfT)	4	3	3	2	3	3
Energy and Climate Change (DECC)	-	-	1	1	1	2
Welsh Government (WG)	3	2	2	2	2	3
Other Departments	39	40	39	47	41	43
Home Office (HO)	16	16	18	13	9	12
Northern Ireland Departments (NI)	9	8	7	8	8	8
Work and Pensions (DWP)	5	15	6	5	5	5
Education (DfE)	4	4	3	2	3	3
Ministry of Justice (MoJ)	7	4	4	5	6	5
Health and Safety Executive (HSE)	8	8	8	9	7	7
Food Standards Agency (FSA)	-	-	-	-	-	-
Communities and Local Government (DCLG)	3	3	3	1	1	1
Foreign and Commonwealth Office (FCO) ³	-	2	1	-	-	-
Business Enterprise and Regulatory Reform (BERR) ²	83	-	-	-	-	-
BIS Science ⁵	-	-	-	-	-	-
Local Authorities (including NHS Trusts)	667	697	746	745	738 †	786
TOTAL	1,087	1,119	1,146	1,164	1,182 †	1,303
Ministry of Defence (MoD)	262	288	226	158	150	164
TOTAL	262	288	226	158	150	164
GRAND TOTAL	2,390	2,504	2,513	2,356 †	2,136	2,281

Source: Office for National Statistics

Please note, no R&D data appears on this table for HEFCs as they are R&D funders and not performers.

- denotes nil, figures unavailable or too small to display.

† denotes earliest data revision.

1 From 2011, the research institutes that BBSRC funded, were reclassified from General Government to either the higher education or non profit organisation sectors.

2 In 2009, BERR was renamed BIS.

3 Department was not surveyed prior to 2009.

4 Research Councils' pension contributions are included separately.

5 From 2010, BIS Science reported under BIS.

6 Please note for the purpose of this analysis Launch Investment is not shown separately from BIS.

Constant prices (2013)	£ million					
	2008	2009	2010	2011	2012	2013
Research Councils:						
Engineering and Physical Sciences (EPSRC)	-	-	-	-	-	-
Medical (MRC)	356 †	369	416	362	283	246
Science and Technology Facilities (STFC)	338 †	299	241	316	260	297
Biotechnology and Biological Sciences (BBSRC) ¹	192 †	219	231	91	-	-
Natural Environment (NERC)	238 †	284	299	296	269	262
Economic and Social (ESRC)	9 †	8	7	-	-	-
Arts and Humanities (AHRC)	-	-	-	-	-	-
Pensions ⁴	25 †	12	11	10	9	8
TOTAL	1,160 †	1,191	1,205	1,074	821	813
Civil Departments:						
Business, Innovation and Skills (BIS) ^{2,6}	-	90 †	89	116	125	134
Health (DH including NHS)	40 †	26	32	27	29	36
International Development (DFID)	4 †	5	6	6	8	8
Scottish Government (SG)	61 †	62	58	53	59	57
Environment, Food and Rural Affairs (DEFRA)	119 †	118	97	95	88	99
Culture, Media and Sport (DCMS)	41 †	42	41	40	56	93
Transport (DfT)	4 †	3	3	2	3	3
Energy and Climate Change (DECC)	-	-	1 †	1	2	2
Welsh Government (WG)	3 †	3	2	2	2	3
Other Departments	43 †	44	41	48	42	43
Home Office (HO)	18 †	17	19	13	10	12
Northern Ireland Departments (NI)	10 †	9	7	8	8	8
Work and Pensions (DWP)	6 †	17	6	6	5	5
Education (DfE)	5 †	4	3	2	3	3
Ministry of Justice (MoJ)	8 †	4	4	5	6	5
Health and Safety Executive (HSE)	9 †	8	9	9	7	7
Food Standards Agency (FSA)	-	-	-	-	-	-
Communities and Local Government (DCLG)	4 †	3	3	1	1	1
Foreign and Commonwealth Office (FCO) ³	-	2 †	1	-	-	-
Business Enterprise and Regulatory Reform (BERR) ²	92 †	-	-	-	-	-
BIS Science ⁵	-	-	-	-	-	-
Local Authorities (including NHS Trusts)	743 †	757	788	773	754	786
TOTAL	1,210 †	1,214	1,211	1,207	1,207	1,303
Ministry of Defence (MoD)	291 †	312	239	164	153	164
TOTAL	291 †	312	239	164	153	164
GRAND TOTAL	2,661 †	2,718	2,654	2,445	2,182	2,281
2013 = 100	Source: Office for National Statistics					
	2008	2009	2010	2011	2012	2013
GDP deflator used to convert current prices to constant prices	89.800 †	92.122	94.671	96.366	97.921	100

Please note, no R&D data appears on this table for HEFCs as they are R&D funders and not performers.

- denotes nil, figures unavailable or too small to display.

† denotes earliest data revision.

1 From 2011, the research institutes that BBSRC funded, were reclassified from General Government to either the higher education or non profit organisation sectors.

2 In 2009, BERR was renamed BIS.

3 Department was not surveyed prior to 2009.

4 Research Councils' pension contributions are included separately.

5 From 2010, BIS Science reported under BIS.

6 Please note for the purpose of this analysis Launch Investment is not shown separately from BIS.

	Thousands			Percentage Holding		
	All	With Higher Education Qualification ¹	Science or Engineering Higher Education Qualification ²	No Higher Education Qualification ³	With Higher Education Qualification ¹	Science or Engineering Higher Education Qualification ²
Persons						
GB Population aged 16-64	39,414	10,455	4,188	73	27	11
Inactive	8,697	1,231	564	86	14	6
Economically active	30,717	9,223	3,624	70	30	12
Employed	28,494	8,888	3,524	69	31	12
Unemployed ⁴	2,223	335	100	85	15	4
Occupation of those employed⁵						
All occupations⁶	28,494	8,888	3,524	69	31	12
Managers and senior officials	2,844	1,081	292	62	38	10
Professional occupations	5,658	4,169	2,247	26	74	40
Associate professional and technical	3,982	1,704	437	57	43	11
Administrative and secretarial	3,021	668	143	78	22	5
Skilled trades occupations	2,962	185	36	94	6	1
Personal service occupations	2,674	378	172	86	14	6
Sales and customer service occupations	2,312	354	72	85	15	3
Process, plant and machine operatives	1,785	80	18	96	4	1
Elementary occupations	3,114	258	42	92	8	1

Source: Office for National Statistics, Labour Force Survey

- 1 People who have obtained a higher, first or other degree, National Vocational Qualification (NVQ) level 5, level 8 diploma, certificate or award, level 7 diploma or certificate.
- 2 People who have obtained a higher education qualification in a science or engineering subject. These subjects broadly consist of medicine, medical related subjects, biological sciences, agricultural sciences, physical/environmental sciences, mathematical science and computing, engineering, technology, architecture and related studies and social sciences. People with multiple degrees with at least one of the subjects listed are included in the table, with those holding multiple degrees in these subjects included only once.
- 3 Nil returns have been included in the 'No Higher Education Qualification' category.
- 4 Unemployed as defined by the International Labour Organisation.
- 5 Occupation is based on SOC 2010. As a result there may be some inconsistencies with estimates from previous years which used SOC 2000.
- 6 Includes people who did not state their occupations.

	Thousands			Percentage Holding		
	All	With Higher Education Qualification ¹	Science or Engineering Higher Education Qualification ²	No Higher Education Qualification ³	With Higher Education Qualification ¹	Science or Engineering Higher Education Qualification ²
Men						
GB Population aged 16-64	19,556	5,053	1,844	74	26	9
Inactive	3,202	424	181	87	13	6
Economically active	16,354	4,629	1,663	72	28	10
Employed	15,116	4,451	1,609	71	29	11
Unemployed ⁴	1,237	178	55	86	14	4
Women						
GB Population aged 16-64	19,858	5,402	2,343	73	27	12
Inactive	5,495	807	383	85	15	7
Economically active	14,363	4,595	1,960	68	32	14
Employed	13,378	4,437	1,915	67	33	14
Unemployed ⁴	986	157	45	84	16	5

Source: Office for National Statistics, Labour Force Survey

1 People who have obtained a higher, first or other degree, National Vocational Qualification (NVQ) level 5, level 8 diploma, certificate or award, level 7 diploma or certificate.

2 People who have obtained a higher education qualification in a science or engineering subject. These subjects broadly consist of medicine, medical related subjects, biological sciences, agricultural sciences, physical/environmental sciences, mathematical science and computing, engineering, technology, architecture and related studies and social sciences. People with multiple degrees with at least one of the subjects listed are included in the table, with those holding multiple degrees in these subjects included only once.

3 Nil returns have been included in the 'No Higher Education Qualification' category.

4 Unemployed as defined by the International Labour Organisation.