

Assessment of compliance with the Code of Practice for Official Statistics

Statistics on Research and Development

(produced by the Office for National Statistics)

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About the UK Statistics Authority

The UK Statistics Authority is an independent body operating at arm's length from government as a non-ministerial department, directly accountable to Parliament. It was established on 1 April 2008 by the *Statistics and Registration Service Act 2007*.

The Authority's overall objective is to promote and safeguard the production and publication of official statistics that serve the public good. It is also required to promote and safeguard the quality and comprehensiveness of official statistics, and good practice in relation to official statistics.

The Statistics Authority has two main functions:

1. oversight of the Office for National Statistics (ONS) – the executive office of the Authority;
2. independent scrutiny (monitoring and assessment) of all official statistics produced in the UK.

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ASSESSMENT AND DESIGNATION

The *Statistics and Registration Service Act 2007* gives the UK Statistics Authority a statutory power to assess sets of statistics against the *Code of Practice for Official Statistics*.

Assessment will determine whether it is appropriate for the statistics to be designated as National Statistics.

Designation as National Statistics means that the statistics comply with the *Code of Practice*. The *Code* is wide-ranging. Designation can be interpreted to mean that the statistics: meet identified user needs; are produced, managed and disseminated to high standards; and are explained well.

Designation as National Statistics should not be interpreted to mean that the statistics are always correct. For example, whilst the *Code* requires statistics to be produced to a level of accuracy that meets users' needs, it also recognises that errors can occur – in which case it requires them to be corrected and publicised.

Assessment reports will not normally comment further on a set of statistics, for example on their validity as social or economic measures. However, reports may point to such questions if the Authority believes that further research would be desirable.

Assessment reports typically provide an overview of any noteworthy features of the methods used to produce the statistics, and will highlight substantial concerns about quality. Assessment reports also describe aspects of the ways in which the producer addresses the 'sound methods and assured quality' principle of the *Code*, but do not themselves constitute a review of the methods used to produce the statistics. However the *Code* requires producers to "seek to achieve continuous improvement in statistical processes by, for example, undertaking regular reviews".

The Authority may grant designation on condition that the producer body takes steps, within a stated timeframe, to fully meet the *Code's* requirements. This is to avoid public confusion and does not reduce the obligation to comply with the *Code*.

The Authority grants designation on the basis of three main sources of information:

- i. factual evidence and assurances by senior statisticians in the producer body;
- ii. the views of users who we contact, or who contact us, and;
- iii. our own review activity.

Should further information come to light subsequently which changes the Authority's analysis, it may withdraw the Assessment report and revise it as necessary.

It is a statutory requirement on the producer body to ensure that it continues to produce the set of statistics designated as National Statistics in compliance with the *Code of Practice*.

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1 Summary of findings

1.1 Introduction

1.1.1 This is one of a series of reports¹ prepared under the provisions of the *Statistics and Registration Service Act 2007*². The Act requires all statistics currently designated as National Statistics to be assessed against the *Code of Practice for Official Statistics*³. The report covers the research and development (R&D) statistics reported in *UK Business Enterprise Research and Development*⁴ (*BERD*) and *UK Gross Domestic Expenditure on Research and Development*⁵ (*GERD*), produced by the Office for National Statistics (ONS).

1.1.2 Section 3 of this report adopts an ‘exception reporting’ approach – it includes text only to support the Requirements made to strengthen compliance with the *Code* and Suggestions made to improve confidence in the production, management and dissemination of these statistics. This abbreviated style of report reflects the Head of Assessment’s consideration of aspects of risk and materiality⁶. The Assessment team nonetheless assessed compliance with all parts of the *Code of Practice* and has commented on all those in respect of which some remedial action is recommended.

1.1.3 This report was prepared by the Authority’s Assessment team, and approved by the Board of the Statistics Authority on the advice of the Head of Assessment.

1.2 Decision concerning designation as National Statistics

1.2.1 The Statistics Authority judges that the statistics covered by this report are readily accessible, produced according to sound methods and managed impartially and objectively in the public interest, subject to any points for action in this report. The Statistics Authority confirms that the statistics published in *BERD* and *GERD* are designated as National Statistics, subject to ONS implementing the enhancements listed in section 1.5 and reporting them to the Authority by December 2012.

1.2.2 ONS has informed the Assessment team that it has started to implement the Requirements listed in section 1.5. The Statistics Authority welcomes this.

¹ <http://www.statisticsauthority.gov.uk/assessment/assessment-reports/index.html>

² http://www.opsi.gov.uk/Acts/acts2007/pdf/ukpga_20070018_en.pdf

³ <http://www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html>

⁴ <http://www.ons.gov.uk/ons/rel/rdit1/bus-ent-res-and-dev/2010/index.html>

⁵ <http://www.ons.gov.uk/ons/rel/rdit1/gross-domestic-expenditure-on-research-and-development/2010/index.html>

⁶ <http://www.statisticsauthority.gov.uk/assessment/assessment/guidance-about-assessment/criteria-for-deciding-upon-the-format-of-an-assessment-report.pdf>

1.3 Summary of strengths and weaknesses

- 1.3.1 The R&D statistics are well aligned with current international standards. The producer team is working proactively with colleagues in ONS and international organisations to deliver the changes required to meet new international standards for the UK National Accounts.
- 1.3.2 The BERD statistics are based on an ONS register of 20,000 businesses that are known to carry out R&D. They take no account of businesses outside this register. Identifying businesses that carry out R&D is an internationally recognised problem, but it is a quality concern as ONS is unable to quantify the potential gap in coverage for users.
- 1.3.3 *BERD* and *GERD* present very little commentary and analysis. ONS has published information about the methods used to produce BERD and GERD statistics, and the quality of them, but acknowledges that the information about the quality of the statistics in relation to their use could be improved.

1.4 Detailed recommendations

- 1.4.1 The Assessment team identified some areas where it felt that ONS could strengthen its compliance with the *Code*. Those which the Assessment team considers essential to enable designation as National Statistics are listed in section 1.5. Other suggestions, which would improve the statistics and the service provided to users, but which are not formally required for their designation, are listed at annex 1.

1.5 Requirements for designation as National Statistics

Requirement 1	Take steps to develop a greater understanding of the use made of the R&D statistics; publish the relevant information and assumptions and use them to better support the use of the statistics (para 3.1).
Requirement 2	Confirm that future changes to methods or classifications will be announced in advance and that improved information will be published about the impact of such changes on the statistics (para 3.2).
Requirement 3	Improve the published information about the quality of BERD and GERD statistics in relation to their use (para 3.3).
Requirement 4	Publish improved information about the coherence of ONS's R&D statistics with other official statistics published about R&D to aid the use of the statistics (para 3.4).

Requirement 5	Publish plans to review the methodology for producing the R&D statistics in order to meet the coverage requirements of ESA2010 (para 3.5).
Requirement 6	Explore the feasibility of producing the R&D statistics more quickly. Publish the findings of the review (para 3.6).
Requirement 7	Review the statistical disclosure practices for BERD statistics, with a view to presenting industry statistics in <i>BERD</i> , and publish the results (para 3.7).
Requirement 8	Review the resources allocated to these statistics and confirm that they are sufficient to meet the standards of the <i>Code of Practice</i> (para 3.8).
Requirement 9	Improve the commentary in the releases so that it aids user interpretation of the statistics (para 3.9).
Requirement 10	Investigate the feasibility of accessing HM Revenue and Customs' administrative data on R&D tax credits to inform the production of ONS's R&D statistics (para 3.11).

2 Subject of the assessment

- 2.1 The R&D expenditure statistics published in *BERD* and *GERD* provide information about spending on R&D in the UK. R&D is a key determinant of economic growth, and is defined by the Organisation for Economic Cooperation and Development (OECD) 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’⁷.
- 2.2 *BERD* presents statistics about expenditure and employment on R&D by UK businesses, including breakdowns by product group, source of funding, size of business and region. ONS publishes *BERD* 11 months after the end of the reference period.
- 2.3 *BERD* statistics are produced using data that ONS collects through an annual Survey of Research and Development carried out in the UK. The publication of R&D statistics dates back to the 1960s, but the business survey was introduced in its current form in 1993. ONS maintains a register of around 20,000 businesses that are known to carry out R&D and selects a sample of approximately 5,000 of these each year. Only a small proportion of businesses conduct R&D, and so a simple random sample of the whole business population would not be suitable. ONS does not currently make any estimate of R&D expenditure by businesses outside its register. The response rate for the 2010 survey was 91 per cent.
- 2.4 In 2012 ONS undertook its quinquennial review of the business survey. ONS told us that it plans to publish the findings and recommendations on its website⁸ in summer 2012.
- 2.5 *GERD* presents statistics about the total expenditure on R&D by business enterprises, government departments, research councils, higher education establishments and private non-profit organisations (PNPs). Information is also provided about how the expenditure is funded. ONS publishes *GERD* 15 months after the end of the reference period.
- 2.6 The *BERD* estimates are a key input to *GERD* but to produce statistics about *GERD*, ONS also requires data for other sectors of the economy. ONS runs an annual census of all government departments and their agencies. Research Councils are also included in this survey. For the higher education sector, ONS collects data from the Higher Education Funding Councils and has a contract with the Higher Education Statistics Agency⁹. ONS currently produces estimates for PNPs based on a range of sources, including the information provided by government departments and Research Councils. Following a gap of several years, ONS reinstated a small sample survey of PNPs for the 2010 reference year. The data collected from the survey was not used in the 2010 *GERD* publication, but ONS told us it is reviewing the initial results, with a view

⁷ http://www.oecd.org/document/6/0,3746,en_2649_34273_33828550_1_1_1_1,00.html

⁸ <http://www.ons.gov.uk/ons/guide-method/method-quality/quality/reviews/index.html>

⁹ <http://www.hesa.ac.uk/>

to using the survey as the primary data source for estimating PNP expenditure in the future.

- 2.7 R&D and related concepts follow internationally agreed standards defined by the OECD in the *Frascati manual*¹⁰. *Regulation (EC) 753/2004*¹¹ requires the collection of statistics on R&D expenditure and employment by European Union (EU) Member States. One of the five headline targets¹² to measure progress in delivering 'Europe 2020'¹³ (the EU growth strategy) is that three per cent of the EU's GDP should be invested in R&D and innovation. Eurostat¹⁴ is a key user of the R&D statistics and publishes GERD as a percentage of GDP¹⁵ for the EU as a whole. OECD also publishes BERD and GERD statistics in *Main Science and Technology Indicators*¹⁶.
- 2.8 R&D statistics are used by government departments including Department for Business, Innovation and Skills (BIS) and HM Revenue and Customs (HMRC) to develop policy on innovation and assess UK performance. The Scottish Government uses these statistics to publish GERD and BERD statistics for Scotland. The assessment of statistics on R&D in Scotland, produced by the Scottish Government, has been published in Assessment report number 189¹⁷. Industry organisations such as the Association of the British Pharmaceutical Industry (ABPI) also use the statistics to compare with industry measures.
- 2.9 ONS estimates that the annual cost of producing *BERD* is £246,000. This mainly represents the cost of running the business survey which supports both *BERD* and *GERD*. ONS estimates that it costs an additional £106,000 to produce *GERD*, most of which is the cost of running the survey of government departments.

¹⁰ http://www.oecd.org/document/6/0,3746,en_2649_34273_33828550_1_1_1_1,00.html

¹¹ <http://eur-lex.europa.eu/en/legis/latest/chap1607.htm>

¹² http://ec.europa.eu/europe2020/targets/eu-targets/index_en.htm

¹³ http://ec.europa.eu/europe2020/index_en.htm

¹⁴ <http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/themes>

¹⁵ http://epp.eurostat.ec.europa.eu/portal/page/portal/science_technology_innovation/introduction

¹⁶ <http://www.oecd.org/sti/msti>

¹⁷ <http://www.statisticsauthority.gov.uk/assessment/assessment/assessment-reports/assessment-report-189---statistics-on-scottish-businesses-and-research-and-development.pdf>

3 Assessment findings

- 3.1 ONS has established an Innovation User Group to bring together users with an interest in the development of innovation statistics, including government departments, academics and trade associations. However, the statistics team told us that this group has not met since 2010 and acknowledged that it had had little recent engagement with users outside government. The information published by ONS about the users and uses of the R&D statistics echoes this, with the focus on the use of the statistics by government departments and international organisations. As part of the designation as National Statistics, ONS should take steps to develop a greater understanding of the use made of the R&D statistics; publish the relevant information and assumptions and use them to better support the use of the statistics¹⁸ (Requirement 1). We suggest that in meeting this requirement ONS refer to the generic classes of use put forward in the Authority's Monitoring Brief, *The Use Made of Official Statistics*¹⁹. We also suggest that ONS review the terms of reference and membership of the Innovation User Group to ensure that it effectively supports user engagement.
- 3.2 The introduction of the new standard industrial classification, SIC 2007²⁰, in 2009 resulted in some R&D activity being reclassified to a different product group. ONS told us that it explained the changes when they were applied, but that it did not pre-announce them to users of the R&D statistics. Examples exist where ONS has pre-announced changes to methods for producing the R&D statistics, but the practice is inconsistent. ONS has not quantified the impact of changes. As part of the designation as National Statistics, ONS should confirm that future changes to methods or classifications will be announced in advance and that improved information will be published about the impact of such changes on the statistics²¹ (Requirement 2).
- 3.3 ONS publishes good methodology and quality information for *BERD* in the background notes and the accompanying *UK Business Enterprise Research and Development Survey Quality and Methodology Information*²² (*BERD QMI*) note. During this assessment process, ONS acknowledged that the corresponding quality and methodology information for *GERD* was comparatively weak and has now published the *GERD QMI*²³. However, the *QMIs* do not provide guidance about the quality of the statistics in relation to their potential uses. Also, ONS presents very little metadata in the Excel tables that accompany *BERD* and *GERD*. As part of the designation as National Statistics, ONS should improve the published information about the quality of *BERD* and *GERD* statistics in relation to their use²⁴ (Requirement 3). We

¹⁸ In relation to Principle 1, Practice 2 of the *Code of Practice*

¹⁹ <http://www.statisticsauthority.gov.uk/assessment/monitoring/monitoring-briefs/monitoring-brief-6-2010---the-use-made-of-official-statistics.pdf>

²⁰ <http://www.ons.gov.uk/ons/guide-method/classifications/current-standard-classifications/index.html>

²¹ In relation to Principle 2, Practice 4 and Principle 8, Practice 1 of the *Code of Practice*

²² <http://www.ons.gov.uk/ons/guide-method/method-quality/quality/quality-information/business-statistics/summary-quality-report-for-business-enterprise-research-and-development--berd-.pdf>

²³ <http://www.ons.gov.uk/ons/guide-method/method-quality/quality/quality-information/business-statistics/quality-and-methodology-information-for-uk-gross-domestic-expenditure-on-research-and-development--gerd-.pdf>

²⁴ In relation to Principle 4, Practices 1 and 2 of the *Code of Practice*

suggest that ONS improve the metadata in the Excel tables for *BERD* and *GERD*.

- 3.4 ONS and government departments publish a range of National Statistics and official statistics about R&D - for example, the estimates of defence R&D expenditure published by the Defence Analytical Services Agency (DASA) in *UK Defence Statistics*²⁵. ONS only provides links to some of these statistics and does not make clear how the statistics relate to each other. As part of the designation as National Statistics, ONS should publish improved information about the coherence of ONS's R&D statistics with other official statistics published about R&D to aid the use of the statistics²⁶ (Requirement 4). We suggest ONS include improved links to other regional, UK and international R&D statistics in *BERD* and *GERD*.
- 3.5 Recent changes to the UN *System of National Accounts*²⁷ and related forthcoming changes to the *European System of Accounts*²⁸ (ESA2010) mean that in future R&D expenditure will be capitalised in the UK National Accounts to represent investment in assets, increasing the national capital stock. The National Accounts user told us that the statistics team has engaged proactively with them to understand the emerging need and the statistics team has already started to make changes to the surveys²⁹. However, in order to fully deliver on European reporting requirements, ONS must improve the coverage of the R&D statistics to include the whole of the business sector, not just those with 'known' R&D activity, as well as local government and households. ONS told us that it has taken some steps to explore how it might address the gaps in coverage, but that it has not yet formalised plans to fully review the methodology. As part of the designation as National Statistics, ONS should publish plans to review the methodology for producing the R&D statistics in order to meet the coverage requirements of ESA2010³⁰ (Requirement 5).
- 3.6 ONS publishes *BERD* 11 months after the end of the reference period to which the statistics relate. In response to this assessment, one user indicated that there may be demand for more timely statistics in the future to meet European reporting requirements for the UK National Accounts. ONS told us that that the *BERD* timetable is primarily driven by the need to achieve a high response rate to the survey due to the volatility of R&D expenditure over time. As part of the designation as National Statistics, ONS should explore the feasibility of producing the R&D statistics more quickly. ONS should publish the findings of the review³¹ (Requirement 6).
- 3.7 To meet European Regulation requirements, ONS provides *BERD* statistics broken down by industry to Eurostat. ONS told us that it does not publish these statistics in *BERD* as they are disclosive. However, although some cells have to be suppressed to protect confidentiality, Eurostat does publish some of the

²⁵ <http://www.dasa.mod.uk/applications/newWeb/www/index.php?page=66&pubType=1>

²⁶ In relation to Principle 4, Practice 3 of the *Code of Practice*

²⁷ <http://unstats.un.org/unsd/nationalaccount/sna.asp>

²⁸ <http://www.ons.gov.uk/ons/about-ons/what-we-do/programmes---projects/esa2010/international-guidance-manuals/esa2010-manual---part-2.pdf>

²⁹ <http://www.ons.gov.uk/ons/about-ons/what-we-do/programmes---projects/esa2010/survey-information/index.html>

³⁰ In relation to Principle 4, Practice 2 of the *Code of Practice*

³¹ In relation to Principle 4, Practice 5 of the *Code of Practice*

- UK BERD statistics by industry³². A user response to this assessment indicated that there is a requirement for BERD statistics by industry. As part of the designation as National Statistics, ONS should review the statistical disclosure practices for BERD statistics with a view to presenting industry statistics in *BERD*, and publish the results³³ (Requirement 7).
- 3.8 The statistics team told us that the main barrier to developing the R&D statistics has been a lack of resources. The statistics team said that it had not had time to improve the commentary, publish international comparisons or improve the information about methods and quality for *GERD*. As part of the designation as National Statistics, ONS should review the resources allocated to these statistics and confirm that they are sufficient to meet the standards of the *Code of Practice*³⁴ (Requirement 8).
- 3.9 *BERD* and *GERD* include commentary which includes comparisons with the previous year's statistics and is accompanied by charts and summary tables. However, the text does not provide explanations of key features of the statistics and ONS also makes little comment about longer term trends within these releases. As part of the designation as National Statistics, ONS should improve the commentary in the releases so that it aids user interpretation of the statistics³⁵ (Requirement 9). We suggest that in meeting this requirement ONS should consider the points detailed in annex 2.
- 3.10 *BERD* and *GERD* are available in HTML and PDF formats with detailed information contained within a series of accompanying Excel tables. Four letter identifier codes are included in the data tables. These codes allow users to identify the statistics and download them from the Data section of ONS's website³⁶. However, ONS does not provide enough information about how to use these codes to extract data from its website. We suggest that ONS improve the accessibility of data available via the Data section of ONS's website by providing instructions to help users.
- 3.11 The quality of the R&D statistics depends on identifying businesses that carry out R&D. ONS told us that it has made enquiries with HMRC to request a list of the businesses that receive R&D tax credits. HMRC statistics recorded approximately 9,000 businesses claiming tax credits in 2009/10³⁷. ONS told us that following initial advice from HMRC that the legal base for sharing this information would need to be explored, ONS has not yet pursued this further. As part of the designation as National Statistics, ONS should investigate the feasibility of accessing HMRC's administrative data on R&D tax credits to inform the production of ONS's R&D statistics³⁸ (Requirement 10).

³² http://epp.eurostat.ec.europa.eu/portal/page/portal/science_technology_innovation/data/database

³³ In relation to Principle 5, Practice 4 and Principle 8, Practice 3 of the *Code of Practice*

³⁴ In relation to Principle 7, Practice 1 of the *Code of Practice*

³⁵ In relation to Principle 8, Practice 2 of the *Code of Practice*

³⁶ <http://www.ons.gov.uk/ons/datasets-and-tables/index.html>

³⁷ http://www.hmrc.gov.uk/stats/corporate_tax/randdmenu.htm

³⁸ In relation to Protocol 3, Practice 3 of the *Code of Practice*

Annex 1: Suggestions for improvement

A1.1 This annex includes some suggestions for improvement to ONS's R&D statistics, in the interest of the public good. These are not formally required for designation, but the Assessment team considers that their implementation will improve public confidence in the production, management and dissemination of official statistics.

- | | |
|---------------------|--|
| Suggestion 1 | Refer to the generic classes of use put forward in the Authority's Monitoring Brief, <i>The Use Made of Official Statistics</i> when documenting use (para 3.1). |
| Suggestion 2 | Review the terms of reference and membership of the Innovation User Group to ensure that it effectively supports user engagement (para 3.1). |
| Suggestion 3 | Improve the metadata in the Excel tables for <i>BERD</i> and <i>GERD</i> (para 3.3). |
| Suggestion 4 | Include improved links to other regional, UK and international R&D statistics in <i>BERD</i> and <i>GERD</i> (para 3.4). |
| Suggestion 5 | Consider the points detailed in annex 2, in seeking to improve the statistical release (para 3.9). |
| Suggestion 6 | Improve the accessibility of data available via the Data section of ONS's website by providing instructions to help users (para 3.10). |

Annex 2: Compliance with Standards for Statistical Releases

- A2.1 In October 2010, the Statistics Authority issued a statement on *Standards for Statistical Releases*³⁹. While this is not part of the *Code of Practice for Official Statistics*, the Authority regards it as advice that will promote both understanding and compliance with the *Code*. In relation to the statistical releases associated with R&D statistics, this annex comments on compliance with the statement on standards.
- A2.2 In implementing any Requirements of this report (at paragraph 1.5) which relate to the content of statistical releases, we encourage the producer body to apply the standards as fully as possible.

Appropriate identification of the statistics being released

- A2.3 Each of the releases has a title that reflects the coverage and reference period of the statistics and uses appropriate headings and logos for a National Statistics product. Contact details for the responsible statistician are given in both releases. *BERD* and *GERD* would benefit from a brief introduction to the structure and content of the release.

Include commentary that is helpful to the non-expert and presents the main messages in plain English

- A2.4 *BERD* and *GERD* include summaries of the key points of the release, focusing on expenditure in the latest year and comparisons with the previous year. R&D expenditure as a percentage of GDP is presented in *GERD* for the latest year. Given the user interest in the relationship between R&D and economic growth, the releases would benefit from more detailed analysis about this. The releases include very little commentary providing any context to the statistics: for example, in relation to R&D taxation policy. Also, in the absence of any time series analysis or internationally comparable statistics it is difficult to draw any conclusions from the measures presented.
- A2.5 The releases use technical terms. R&D is defined in the 'Background notes' section at the end of the releases, but terms such as 'civil' are not explained. ONS presents both 'real' and 'cash' measures, but the terms are not clearly defined, nor does ONS provide advice on the appropriate use of these measures. Information about definitions is more extensive in *GERD*, but improvements could be made to both releases.

Use language that is impartial, objective and professionally sound

- A2.6 The text used in the releases is impartial and evidence-based.

³⁹ <http://www.statisticsauthority.gov.uk/news/standards-for-statistical-releases.html>

Include information about the context and likely uses

A2.7 The releases lack information about the context and likely uses of the statistics, but a link is provided in *BERD* to *BERD QMI* which describes the key uses of the statistics by government and international organisations, and the process for assessing user needs.

Include, or link to, appropriate metadata

A2.8 *BERD* includes helpful information about the sources and methods used to compile these statistics as well as information about how the methods and concepts relate to international standards. Information is provided about standard errors and a link is provided to *BERD QMI*. Less information is provided about quality in *GERD* and the link to a quality report takes users to *BERD QMI*. However, ONS has now published methodology and quality information in *GERD QMI*.

A2.9 ONS publishes a series of accompanying Excel tables with *BERD* and *GERD*. Some, but insufficient, metadata are provided in support of these tables. Also, more than 20 of the *BERD* tables receive no mention in the main commentary or background notes of the publication.

A2.10 *BERD* presents regional statistics, but no reference is made in *BERD* or *GERD* to any associated official statistics published for Wales, Scotland or Northern Ireland. *GERD* provides a link to the international statistics published by OECD and the Government R&D expenditure statistics published by Department for Business Innovation and Skills (BIS), but there is no discussion of these statistics. The *QMIs* discuss coherence with R&D Scoreboard reports published by BIS. No reference is made to coherence with statistics such as those published by DASA on R&D expenditure or the R&D Tax Credits statistics published by HMRC. No links are provided to related statistics published by organisations such as Nesta, the UK's innovation foundation.

A2.11 The releases highlight changes to definitions and methods, but not with numerical comparisons. There has been mixed practice in pre-announcing changes and making this information available to users in a clear and accessible manner.

A2.12 The nature and extent of revisions are described in both releases, but the descriptions could be clearer.

Annex 3: Summary of assessment process and users' views

A3.1 This assessment was conducted from March to June 2012.

A3.2 The Assessment team – Donna Livesey and Gary Wainman – agreed the scope of and timetable for this assessment with representatives of ONS in March. The Written Evidence for Assessment was provided on 4 April. The Assessment team subsequently met ONS during April to review compliance with the *Code of Practice*, taking account of the written evidence provided and other relevant sources of evidence.

Summary of users contacted, and issues raised

A3.3 Part of the assessment process involves our consideration of the views of users. We approach some known and potential users of the set of statistics, and we invite comments via an open note on the Authority's website. This process is not a statistical survey, but it enables us to gain some insights about the extent to which the statistics meet users' needs and the extent to which users feel that the producers of those statistics engage with them. We are aware that responses from users may not be representative of wider views, and we take account of this in the way that we prepare Assessment reports.

A3.4 The Assessment team received seven responses from the consultation of users and suppliers. The respondents were grouped as follows:

ONS (National Accounts)	1
Scottish Government	1
Non-profit organisation	1
Data suppliers	4

A3.5 Users confirmed the importance of the statistics. Two users were highly complimentary about engagement with the statistics team and one user said that they would welcome a much better level of engagement. There was individual user interest in more information about quality for *GERD*, industry sector statistics for *BERD* and estimates for the private non-profit sector for Scotland. One user reported problems finding R&D statistics using the ONS website.

A3.6 Data suppliers generally reported good communication with the statistics team and suppliers from government departments said that while ONS is the primary user of the data, they would collect it for their own purposes. One supplier said they would welcome more information about how the statistics are used. Two suppliers of GERD statistics from government departments felt that the quality assurance process could be streamlined.

Key documents/links provided

Written Evidence for Assessment document

