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**Mark Pont, Assessment Programme Lead**

Darren Morgan  
Director of Economic Statistics Production and Analysis Office for National Statistics  
(by email)

21 December 2022

Dear Darren

**ONS Business Enterprise Research and Development (BERD) Statistics**

Ed Humpherson [wrote](#) to you agreeing with the proposal in [your letter](#) to him of 4 November to temporarily suspend the National Statistics designation of more-detailed breakdowns of BERD statistics released on 22 November 2022. We have since concluded a more-detailed review of the statistics and this letter provides a summary of the findings.

I am grateful for the discussions with your statistics team during our review. These have complemented the publicly available information, particularly [an article](#) published on 29 September 2022 and a blog published on 21 November 2022 called '[Transforming R&D statistics: the next steps](#)'. I am sure you and your team will find our findings below helpful as you consider further enhancements to the BERD statistics.

**New methods for estimating BERD statistics**

ONS has adopted an approach to improving its BERD statistics, which are now more coherent with estimates of business spending on R&D yielded by [HMRC's R&D Tax Credit statistics](#). It is good that ONS has various initiatives in place to both provide further assurance and potential improvements to the statistics.

**Further use of linked HMRC data**

ONS intends to widen its current arrangements to link ONS BERD data and the HMRC's R&D tax credit data beyond the initial one-year arrangement to a regular yearly supply of HMRC microdata about R&D tax credits, subject to the necessary approvals. Continued data linkage could open-up new insights and possibly supplement the current methods for assuring the quality of the BERD statistics.

ONS has applied to be a beneficiary of the [British Academy Innovation Fellowships](#) for 2022-23 by recruiting a researcher funded from the Fellowships. The successful researcher will examine what more can be done to link HMRC tax data with ONS's BERD data to develop greater insights into business R&D and perhaps to develop better quality assurance of the BERD data. We commend ONS on advancing the potential of linking to HMRC R&D Tax Credit data to bring greater insights to its BERD statistics.

**Guidance to businesses on counting all eligible R&D spend in the BERD survey**

For many years there has been growing and extensive application of information technology within UK businesses, which has transformed a range of industries particularly in services such as finance, media and telecommunications. In these sectors, product, service and process innovations are often bundled together and frequently depend on

sophisticated software systems, some of which would be considered R&D activity and some wider innovation. ONS is clarifying to its BERD survey respondents what is and is not eligible. This should result in an assurance that eligible R&D spending on software development is properly captured in future BERD statistics.

### **Sound Methods – use of business counts for weighting purposes**

ONS uses business counts as survey weights. The OECD reports that most countries have told them that the use of weights based on business population counts is problematic for estimating R&D expenditure totals and to avoid it whenever possible. Although also imperfect, OECD suggests that weights based on total remuneration in R&D-performing businesses perform significantly better than count-based weights and they are also believed to outperform weights based on variables such as turnover or sales.

It is good that ONS has reviewed its methodology and concluded that weights based on population counts produces the best estimate for the entire population of R&D performers in the UK.

### **Sound Methods – sample size**

There was a suggestion from the OECD that the UK BERD sample was low when compared with other countries such as Italy, France, and Germany. We are encouraged that ONS intends to increase the BERD sample, and that the intention is for the sample to include the top R&D performers based on both business surveys and HMRC administrative tax data. This sample increase should allow ONS to publish further improved statistics.

### **User Engagement**

ONS engaged well with key users, particularly over the changes in the methodology for arriving at BERD estimates. Reaching out to many Government Departments known to use these statistics, ONS made strenuous efforts to discuss the upcoming changes with stakeholders in these statistics such as the [Department for Business, Energy and Industrial Strategy \(BEIS\)](#), [GO Science](#) and the [Council of Science and Technology](#).

The increase in the number of R&D-active businesses that ONS has recognised is indicative that they play a much greater role in innovation in the UK than was previously understood. It is good that ONS intends to engage with business groups to help understand better the needs of different kinds of businesses, whether large or small, in respect to R&D statistics. ONS also intends to refresh its group of users with interests in BERD statistics as well as its Experts Group.

Despite the engagement by ONS, some users appear to have been surprised at the scale of increase in the estimates of R&D activity. The House of Commons Science and Technology Committee also recently noted that ONS was “a little opaque” in communication of changes to the 2022 BERD estimates (see Q34 of the [Committee Session held on 7 December 2022](#)). We recognise the difficult balance here between not giving users access to the statistics before release, as clearly stated in the Code of Practice, while at the same time giving as much clarity as possible to users around the scale of changes.

In the light of this experience, we have agreed to work together with ONS to explore the lessons that can be learned about what more could be done, should a similar situation arise with these or other statistics.

Thank you for your team’s positive engagement throughout this review. ONS is striving to transform the way statistics on R&D are produced in a very thorough manner. We look forward to seeing how the BERD statistics continue to develop over the next year.

OSR's Business, Trade and International Development domain team will keep in touch with the BERD statisticians about the lifting of the temporary suspension of the National Statistics status of the detailed breakdowns once elements of the longer-term development plan can provide more reassurance around the quality of these statistics. I am copying this letter to Heather Bovill, Deputy Director of Surveys and Economic Indicators, ONS.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Mark Pont', with a horizontal line underneath.

Mark Pont  
Assessment Programme Lead