**Innovation State of the Nation 2023**

**Annexes**

Final report

 **June 2nd 2023**

**Stephen Roper, Rita Nana-Cheraa and Carol Stanfield**

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# **Annex 1:** ISNS 2023 Survey Overview

## A1.1 Definitions

In the report tables we focus on comparisons between regions, 9 broad sectors (SIC codes: ABDE, C, F, G, H, I, K, JLM, NPQRS) and 4 firm size bands (5-9,10-49, 50-249, 250+ employees). In addition, we adopt a categorisation of frontier and non-frontier firms which is used throughout the report. Typically, in OECD analysis frontier firms – identified from secondary sources such as accounting data - have higher productivity, are faster growing and have higher levels of innovation than non-frontier firms. Here, we use a rather different approach to identify frontier firms which draws on the OECD Oslo Manual which provides guidance on measuring firms’ innovation[[1]](#footnote-1). In the survey firms were asked ‘Thinking about how your firm compares to your main UK competitors. How strongly do you agree that: We are often the first to introduce innovative products or services’. Where a respondent strongly agreed with this statement we classify their firm as a ‘frontier’ company; all other firms are classified as non-frontier. Overall, around a quarter of firms responding to the survey were classified as ‘frontier’ firms on this basis.

Defining innovation itself is also critical to this type of survey and our innovation definition and survey methodology are designed differently to those in the UK Innovation Survey. These differences result in a level of measured innovation activity which is significantly higher than that typically recorded in the UK Innovation Survey, but is similar to other telephone surveys of innovation. There are two key differences between the definitions used here and that used in the UK Innovation Survey. First, here we ask ‘Have you introduced any new products or services or made any changes to the existing products or services which your firm sells over the last 12 months? So the focus is on ‘any’ changes to products or services, a lower bar than the ‘significant’ and ‘technical’ requirements for innovation in the UK Innovation Survey. This difference is consistent with the higher levels of innovative activity noted here. Second, as ISNS is intended to be an annual survey we ask only about the year prior to the survey (so next year we can ask about the interval between surveys). This we would anticipate reduces the innovation rate relative to the three-year reference period of the UK Innovation Survey although this is clearly more than offset by the less demanding innovation definition.

## A1.2 Conducting the survey

### A1.2.1 Introduction

The Innovation State of the Nation 2023 (ISNS 23) survey was conducted using a combination of Computer Assisted Telephone Interviewing (CATI) and an online B2B panel. While the original plan was to complete all of the 2,000 required interviews via CATI, fieldwork progress was much slower than anticipated and so responses were also sought using an online B2B panel running in parallel to the CATI interviewing.

Within each respondent organisation, a member of the senior management team or a senior decision maker involved in developing new products or services was sought to be interviewed.

Businesses with 5 or more employees were in scope for the survey. This definition excluded owners and partners, agency staff and contractors but included other directors and temporary and casual staff. Organisations were additionally screened to ensure they were not a charity, not for profit or public sector organisation.

In total 2,018 interviews were completed: 1,217 via CATI and 801 online. Interviews were conducted between 14 November 2022 and 28 February 2023 (c. 13 weeks of fieldwork). CATI interviews lasted an average of 19 minutes and online completion took an average of 10 minutes. Two sample sources were used, the first was a randomised sample of relevant organisations purchased from Dun & Bradstreet. The CATI survey was conducted by OMB Research Ltd, with on-line completion by members of Dynata’s B2B panel of UK business professionals.

For the CATI survey a sample of relevant UK private sector organisations was purchased from Dun & Bradstreet and a stratified sampling approach was adopted. Targets were adopted in a 45-cell grid comprised of 9 grouped sectors (SIC codes: ABDE, C, F, G, H, I, K, JLM, NPQRS) and 5 size bands (5-9,10-19, 20-49, 50-249, 250+). Soft targets were also set on UK region to ensure a broadly representative spread. Organisations with 50+ employees and within certain sectors (e.g. manufacturing, finance, agriculture/energy) were intentionally over-sampled to ensure they were adequately represented and to allow more robust sub-analysis by these groups.

For the online panel interviews, Dynata’s business panel was used. Dynata have a large universe of B2B professional audiences. All panellists are fully verified using thorough vetting solutions prior to being accepted on the panel. Targets were again proposed using the 45-cell grid of grouped sectors and size bands balanced with availability of the target profile within the panel reach. Soft targets were also set on UK region to ensure a broadly representative spread.

### A1.2.2 Fieldwork

Following a pilot stage to fully test the questionnaire, fieldwork took place between 14 November 2022 and 28 February 2023. In total, 1,217 CATI and 801 online interviews were completed. For the telephone (CATI) interviews, the outcomes of attempted calls are shown in Table A1.1 in the following broad categories:

* Completed interviews.
* Refusals (direct refusals by target respondent; terminated interviews; and where the ‘gatekeeper’ – a receptionist, PA or colleague – refuses to put the call through).
* ‘Unusable’ numbers. These indicate both ‘screen outs’, e.g., organisations falling outside of the scope of the survey, as well as dead phone lines, wrong numbers, etc.

The profile of achieved responses, broken down by size and sector are detailed in Table A1.2.

**Table A1.1: Telephone response rate**

|  |  |
| --- | --- |
|  | **Total** |
| Total number of records | 20,887 |
| Unusable | 1,798 |
| % Unusable | 9% |
| Total usable records | 19,089 |
| Completed Interviews | 1,217 |
| Response Rate | 6% |
| Refusals | 1,876 |
| Refusal Rate | 10% |

**Table A1.2: Achieved responses by employment sizeband**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Micro** | **Small** | **Medium** | **Large** | **Total** |
|  | **5-9** | **10-49** | **50-249** | **250+** |  |
| Agriculture/Mining/Energy (A B D E) | 48 | 62 | 23 | 10 | 143 |
| Manufacturing (C) | 199 | 303 | 97 | 59 | 658 |
| Construction (F) | 38 | 74 | 33 | 14 | 159 |
| Retail/Distribution (G) | 65 | 88 | 35 | 29 | 217 |
| Transport/Storage (H) | 20 | 72 | 24 | 17 | 133 |
| Hotel/Catering (I) | 34 | 75 | 31 | 15 | 155 |
| Finance (K) | 34 | 47 | 35 | 32 | 148 |
| Property/Business Services | 67 | 120 | 50 | 46 | 283 |
| Other Services (N P Q.. | 29 | 59 | 17 | 16 | 121 |
| Total | 534 | 900 | 345 | 238 | 2,017 |

Survey respondents were also asked whether their organisation was a single site enterprise or headquarters, a subsidiary with UK headquarters or subsidiary with non-UK headquarters. The corporate structure of businesses is often thought to be important for innovation outcomes due to the potential for knowledge sharing between subsidiaries of larger firms and the larger financial resources of groups of businesses[[2]](#footnote-2). Around 85 per cent of respondent organisations were single-site enterprises or headquarters, with the bulk of the remainder being subsidiaries with UK headquarters (Figure A1.1). Frontier firms were more likely to be subsidiaries with UK or international headquarters as were larger firms and those in the hotels/catering sector. Northern Ireland also has a noticeably larger proportion of subsidiary operations as does Wales (Figure A1.1).

**Figure A1.1: Organisation of respondent firms (N=2010)**



### A1.2.3 Weighting

As indicated earlier stratified sampling was used to ensure broadly balanced response numbers by sizeband and sector. Weighting is therefore necessary to provide representative results. We use simple population weights based on the population of private sector businesses in 2022 (Table A1.3). The applied weights are reported in Table A1.4.

**Table A1.3: Target population of private sector businesses, start 2022**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Micro** | **Small** | **Medium** | **Large** | **Total** |
|  | **5-9** | **10-49** | **50-249** | **250+** |  |
| Agriculture/Mining/Energy (A B D E) | 9,455 | 5,650 | 910 | 240 | 16,255 |
| Manufacturing (C) | 18,860 | 21,145 | 6,080 | 1,225 | 47,310 |
| Construction (F) | 30,175 | 17,830 | 2,060 | 300 | 50,365 |
| Retail/Distribution (G) | 56,560 | 37,265 | 5,110 | 1,135 | 100,070 |
| Transport/Storage (H) | 10,265 | 8,280 | 1,560 | 380 | 20,485 |
| Hotel/Catering (I) | 36,695 | 33,210 | 2,980 | 610 | 73,495 |
| Finance (K) | 4,740 | 3,295 | 985 | 385 | 9,405 |
| Property/Business Services | 50,370 | 39,275 | 6,490 | 1,365 | 97,500 |
| Other Services (N P Q.. | 53,720 | 51,290 | 9,765 | 2,035 | 116,810 |
| Total | 270,840 | 217,240 | 35,940 | 7,675 | 531,695 |

**Source:** Business Population Estimates for the UK and Regions 2022, October 2022, ONS, Table 5, ‘Number of businesses in the private sector’.

**Table A1.4: Response weights by sector and employment sizeband**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Micro** | **Small** | **Medium** | **Large** | **Total** |
|  | **5-9** | **10-49** | **50-249** | **250+** |  |
| Agriculture/Mining/Energy (A B D E) | 197.0 | 91.1 | 39.6 | 24.0 | 113.7 |
| Manufacturing (C) | 94.8 | 69.8 | 62.7 | 20.8 | 71.9 |
| Construction (F) | 794.1 | 240.9 | 62.4 | 21.4 | 316.8 |
| Retail/Distribution (G) | 870.2 | 423.5 | 146.0 | 39.1 | 461.2 |
| Transport/Storage (H) | 513.3 | 115.0 | 65.0 | 22.4 | 154.0 |
| Hotel/Catering (I) | 641.3 | 641.3 | 96.1 | 40.7 | 474.2 |
| Finance (K) | 139.4 | 70.1 | 28.1 | 12.0 | 63.5 |
| Property/Business Services | 751.8 | 327.3 | 129.8 | 29.7 | 344.5 |
| Other Services (N P Q.. | 1193.3 | 1193.3 | 574.4 | 127.2 | 965.4 |
| Total | 507.2 | 241.4 | 104.2 | 32.2 | 263.6 |

# Annex 2: Survey Questionnaire

**INNOVATION STATE OF THE NATION SURVEY 2023**

|  |
| --- |
| **INTRODUCTION** |

**Please can I speak to the business owner, or a senior decision maker that would be involved in developing new products or services in the business (e.g. Managing Director, Product Development Manager).**

**Good morning/afternoon. My name is xxxx and I’m calling on behalf of Innovate UK from OMB Research Ltd, an independent market research agency.**

**We’ve been commissioned by Innovate UK and the University of Warwick to conduct a survey about business innovation activity, focusing on how your company has fared over the last year and how you see the future.** **The survey is intended to be used for public good and might help to shape Innovate UK future support for business innovation.**

IF NEEDED: **By innovation we mean any changes you may have made to the products or services you produce or the way in which you organise your business.**

IF RESPONDENT SAYS THESE TOPICS ARE NOT RELEVANT TO THE BUSINESS PLEASE SAY WE ARE STILL INTERESTED IN SPEAKING TO THEM AS KEEN TO UNDERSTAND THE REASONS PREVENTING THEM FROM UNDERTAKING ANY INNOVATION AND WHAT TYPE OF SUPPORT THEY MAY NEED

**The survey will take around 15-20 minutes, depending on your answers. Is it convenient to speak to you now or would you prefer to make an appointment for another time?**

REASSURANCES TO USE IF NECESSARY:

* The research is being conducted under the Code of Practice of the Market Research Society, which means that all of the answers you give are strictly confidential and anonymous.
* OMB Research Ltd will not disclose to University of Warwick who has taken part in the research or divulge specific details about your organisation unless you agree to this at the end of the survey. All responses are reported in aggregate and anonymously.
* Participation in this survey is voluntary, although your cooperation will ensure that the views expressed are representative of all employers in your industry.
* Your organisation was selected at random from a list purchased from a commercial sample provider.
* If you would like, we will also email you a summary report of our findings as a thank you for taking part once the research has been completed
* If you would like to speak to someone at OMB about the survey please contact Hannah Gorry (Associate Director, OMB Research) on 01732 220582. Alternatively, if you would like to speak to someone at Innovate UK about the research please contact Jaime Tinker by email at: Jaime.Tinker@iuk.ukri.org.
* Alternatively, if you wish to talk to someone at University of Warwick about the research please call Professor Steve Roper or vicki.belt@wbs.ac.uk
* If you would like to confirm that OMB Research is a bona fide market research agency, you can contact the Market Research Society on 0800 975 9596.

INTERVIEWER NOTE:If respondent requires more information about the research before agreeing to participate, then you can offer the information email.

|  |
| --- |
| **S. SCREENER** |

**SX The survey is aimed at businesses with 5 or more employees. Can I just check that this applies to your business?**

IF NO, THANK AND CLOSE AND CODE CALL OUTCOME ACCORDINGLY, SAYING: **Thank you for your time, but for this survey we are only speaking to businesses with more than 5 employees;**

IF YES: CONTINUE.

**S1. The information you give us will be used for research purposes only and we will not disclose to Innovate UK or the University of Warwick who has taken part in the research or divulge specific details about your organisation unless you agree to this at the end of the survey.**

**You can find out more information about our surveys and what we do with the information we collect in our Privacy Notice, which is on our website (**IF NECESSARY:[**www.ombresearch.co.uk/privacy**](http://www.ombresearch.co.uk/privacy)**).**

**All calls are recorded for training and quality purposes.**

ASK ALL

 **Before I continue, can I just confirm that you are happy to participate in the survey on this basis?** SINGLE CODE.

 SINGLE CODE.

|  |  |  |
| --- | --- | --- |
| Yes, agreed to participate in survey | 1 | CONTINUE |
| Requested more information | 2 | SEND INFO EMAIL |
| No, declined to participate | 3 | CLOSE AND UPDATE CALL OUTCOME WITH REASON FOR DECLINING |

ASK ALL

**S2a. Can I just confirm that I am speaking to a member of the senior management team or that you are a senior decision maker involved in developing new products or services at** [NAME OF BUSINESS]**?**

|  |  |  |
| --- | --- | --- |
| Yes | 1 | *Continue* |
| No  | 2 | *Ask to speak to someone who is one of the most senior people involved in developing new products or services* |

READ TO ALL

**First, I would like to ask some questions about your business.**

ASK ALL

**S3. Would you classify your business as...?**

READ OUT. SINGLE CODE

|  |  |  |
| --- | --- | --- |
| A business mainly seeking to make a profit (i.e. a private sector business) | 1 |  |
| A charity / Not for profit organisation | 3 | THANK & CLOSE: Thank you but we are only speaking to businesses in the private sector  |
| Part of the public sector | 4 | THANK & CLOSE: Thank you but we are only speaking to businesses in the private sector  |

|  |
| --- |
| **A. ABOUT THE BUSINESS** |

A1/A1B SECTOR DELETED – SECTOR TO RUN FROM SAMPLE

ASK ALL

**A1A How many people are currently on the payroll as employees?**

**RECORD NUMBER.**

AS NECESSARY: **Please…**

* **Include full and part time staff**
* **Include temporaries/casuals**
* **Include UK staff only**
* **Exclude agency staff**
* **Exclude self-employed, contractors**
* **Exclude owners/partners, but count other directors as employees**

|  |  |  |
| --- | --- | --- |
| Write in number | 1 | IF <5 CLOSE |
| DO NOT READ OUT: Don’t know/refused | 2 |  |

IF DK/REF NUMBER OF EMPLOYEES (A1A=2)

**A1B Do you know the approximate number of employees, is it…?**

READ OUT. SINGLE CODE.

|  |  |  |
| --- | --- | --- |
| Under 5 | 1 | CLOSE |
| 5-9 | 2 |  |
| 10-19 | 3 |  |
| 20-49 | 4 |  |
| 50-99 | 5 |  |
| 100-249 | 6 |  |
| 250-499 | 7 |  |
| 500 – 999 | 8 |  |
| 1,000+ | 9 |  |
| DO NOT READ OUT: Don’t know | 97 |  |
| DO NOT READ OUT: Refused | 98 |  |

ASK ALL

**A2. Which of the following best describes this specific site…?**

READ OUT. SINGLE CODE.

INTERVIEWER NOTE: IF WORKING FROM HOME THEN SITE REFERS TO THE SITE WHEN THEY ARE IN THE OFFICE

|  |  |  |
| --- | --- | --- |
| The only site in the organisation  | 1 |  |
| The Headquarters of a multi-site organisation | 2 |  |
| A Branch/subsidiary with headquarters elsewhere in the UK | 3 |  |
| Or A Branch/subsidiary with headquarters outside of the UK | 4 |  |
| DO NOT READ OUT: Don’t know | 97 |  |
| DO NOT READ OUT: Refused | 98 |  |

ASK ALL

**A3. For how many years has the business been operating?**

READ OUT. SINGLE CODE.

AS NECESSARY: **Please just answer about the business in its current form.**

|  |  |  |
| --- | --- | --- |
| Less than five years | 1 |  |
| 5 to 10 years | 2 |  |
| 11 to 20 years | 3 |  |
| More than 20 years | 4 |  |
| DO NOT READ OUT: Don’t know | 97 |  |
| DO NOT READ OUT: Refused | 98 |  |

ASK ALL

**A4. Do you have any customers outside of the UK?**

SINGLE CODE.

|  |  |  |
| --- | --- | --- |
| Yes | 1 |  |
| No | 2 |  |
| DO NOT READ OUT: Don’t know | 97 |  |
| DO NOT READ OUT: Refused | 98 |  |

ASK IF HAVE EXPORT SALES (A4=1)

**A4A. Approximately what proportion of your sales were to customers outside of the UK over the last year?** READ OUT AS NECESSARY

|  |  |  |
| --- | --- | --- |
| Less than 20 per cent | 1 |  |
| 21-40 per cent | 2 |  |
| 41-60 per cent | 3 |  |
| 61-80 per cent | 4 |  |
| More than 80 per cent | 5 |  |
| DO NOT READ OUT: Don’t know | 97 |  |
| DO NOT READ OUT: Refused | 98 |  |

ASK ALL

**A5. Including owners or partners, how many people manage this business on a day- -to-day basis?**

 ENTER NUMBER

|  |
| --- |
| ENTER NUMBER (RANGE=0-99) |
| DO NOT READ OUT: Don’t know | 97 |
| DO NOT READ OUT: Refused | 98 |

ASK ALL

**A6. How many, if any, of the people that manage this business are women?**

ENTER NUMBER

|  |
| --- |
| ENTER NUMBER (RANGE=0-NUMBER AT A5) |
| DO NOT READ OUT: Don’t know | 97 |
| DO NOT READ OUT: Refused | 98 |

ASK ALL

**A7. How many, if any, of the people who manage the business are from ethnic minority groups?**

ENTER NUMBER

|  |
| --- |
| ENTER NUMBER (RANGE=0-NUMBER AT A5) |
| DO NOT READ OUT: Don’t know | 97 |
| DO NOT READ OUT: Refused | 98 |

|  |
| --- |
| **B. STRATEGIC OBJECTIVES OF THE BUSINESS** |

READ TO ALL

**Now, I would now like to ask some questions about the priorities of your business and its performance.**

ASK ALL

**B1. Thinking about the objectives of your business over the last 12 months. How important have each of the following been?**

READ OUT. CATI TO RANDOMISE ORDER. SINGLE CODE PER ROW.

READ OUT SCALE IN FULL FOR FIRST STATEMENT THEN REMIND AS NECESSARY.

PROMPT AS NECESSARY: **How important has this been for your business over the last 12 months?**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | Not at all important | Not very important | Neither important nor unimportant | Fairly important | Very important | DO NOT READ OUT: Don’t know |
| B | Increasing efficiency  | 1 | 2 | 3 | 4 | 5 | 97 |
| C | Increasing sales  | 1 | 2 | 3 | 4 | 5 | 97 |
| D | Increasing profit margins  | 1 | 2 | 3 | 4 | 5 | 97 |
| E | Sustaining cash flow | 1 | 2 | 3 | 4 | 5 | 97 |
| F | Reducing environmental impact | 1 | 2 | 3 | 4 | 5 | 97 |
| G | Generating social or community benefits  | 1 | 2 | 3 | 4 | 5 | 97 |

ASK ALL

**B2. Now, thinking about how you aim to achieve your business objectives. How important have each of the following been over the last 12 months?**

RANDOMISE BUT KEEP 7&8 TOGETHER

READ OUT. SINGLE CODE PER ROW.

READ OUT SCALE IN FULL FOR FIRST STATEMENT THEN REMIND AS NECESSARY

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | Not at all important | Not very important | Neither important nor unimportant | Fairly important | Very important | DO NOT READ OUT: Don’t know |
| 1 | Adopting new digital technologies | 1 | 2 | 3 | 4 | 5 | 97 |
| 3 | Introducing or upgrading products or services | 1 | 2 | 3 | 4 | 5 | 97 |
| 5 | Developing your production or service delivery processes | 1 | 2 | 3 | 4 | 5 | 97 |
| 7 | Selling to new customers  | 1 | 2 | 3 | 4 | 5 | 97 |
| 8 | Selling more to existing customers | 1 | 2 | 3 | 4 | 5 | 97 |

ASK ALL

**B3. Thinking about how your firm compares to your main UK competitors. To what extent would you agree or disagree that…?**

READ OUT. SINGLE CODE PER ROW. CATI TO RANDOMISE

READ OUT SCALE IN FULL FOR FIRST STATEMENT THEN REMIND AS NECESSARY

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Disagree strongly | Disagree slightly | Neither agree nor disagree  | Agree slightly | Agree strongly  | DO NOT READ OUT: Don’t know |
| We are often the first to introduce innovative products or services | 1 | 2 | 3 | 4 | 5 | 97 |
| We lead the sector in terms of service or product quality  | 1 | 2 | 3 | 4 | 5 | 97 |
| The design of our products or services is key to our success  | 1 | 2 | 3 | 4 | 5 | 97 |

ASK ALL

**B4. Not counting owners and partners, how many people did your business employ a year ago?**

READ OUT AS NECESSARY: **Please include full and part time staff, and temporary/casual staff, but not agency staff.**

ENTER NUMBER.

|  |
| --- |
| ENTER NUMBER  |
| DO NOT READ OUT: Don’t know | 97 |
| DO NOT READ OUT: Refused | 98 |

ASK IF DON’T KNOW/REFUSED EMPLOYEES A YEAR AGO (B4=97-98)

**B4a. Would you say the number of people employed by your business over the last year has …?**

READ OUT. SINGLE CODE.

|  |  |
| --- | --- |
| Increased  | 1 |
| Decreased | 2 |
| Or, stayed exactly the same | 3 |
| DO NOT READ OUT: Don’t know | 97 |
| DO NOT READ OUT: Refused | 98 |

ASK IF NUMBER OF PEOPLE EMPLOYED HAS INCREASED/DECREASED (B4A=1-2)

**B4b. By approximately what percentage did the number of people employed by your business [IF B4a = 1:increase][IF B4a = 2:decrease], compared with the previous 12 months?**

PROBE FOR AN ESTIMATE AND ENTER PERCENTAGE.

|  |  |
| --- | --- |
| ENTER PERCENTAGE (IF DECREASED, RANGE = 1-100%; IF INCREASED, RANGE = 1-999%) |   |
| DO NOT READ OUT: Don’t know | 97 |
| DO NOT READ OUT: Refused | 98 |

ASK ALL

**B5. Can you please tell me the approximate turnover of your business in the past 12 months?**

ENTER NUMBER.

|  |  |
| --- | --- |
| WRITE IN AMOUNT IN £ |   |
| DO NOT READ OUT: Don’t know | 97 |
| DO NOT READ OUT: Refused | 98 |
| **ADD CHECK QUESTION AS PER BANDS AT B5A**  |

ASK IF DK OR REFUSED TURNOVER IN PAST 12 MONTHS (B5=97-98)

**B5a. Which of these ranges does your turnover fall into?**

SINGLE CODE – READ OUT AS NECESSARY

|  |  |
| --- | --- |
| Less than £50,000 | 1 |
| £50,000 - £99,999 | 2 |
| £100,000 - £249,999 | 3 |
| £250,000 - £499,999 | 4 |
| £500,000 - £749,999 | 5 |
| £750,000 - £999,999 | 6 |
| £1m – £1.99m | 7 |
| £2m-£4.99m  | 8 |
| £5m - £9.99m | 9 |
| £10m - £14.99m | 10 |
| £15m - £24.99m | 11 |
| £25m or more | 12 |
| DO NOT READ OUT: Don’t know | 97 |
| DO NOT READ OUT: Refused | 98 |

ASK ALL

**B6. Compared with the previous 12 months, has your turnover increased, decreased or stayed roughly the same?**

SINGLE CODE

|  |  |
| --- | --- |
| Increased  | 1 |
| Decreased | 2 |
| Or, stayed roughly the same | 3 |
| DO NOT READ OUT: Don’t know | 97 |
| DO NOT READ OUT: Refused | 98 |

ASK IF TURNOVER HAS INCREASED/DECREASED (B6=1-2)

**B6a. By approximately what percentage did your turnover [IF B6 = 1:increase][IF B6 = 2:decrease], compared with the previous 12 months?**

ENTER PERCENTAGE

|  |  |
| --- | --- |
| ENTER PERCENTAGE (IF DECREASED, RANGE = 1-100%; IF INCREASED, RANGE = 1-999%) |   |
| DO NOT READ OUT: Don’t know | 97 |
| DO NOT READ OUT: Refused | 98 |

|  |
| --- |
| **C. PRODUCT AND SERVICE CHANGE** |

READ OUT TO ALL

**Now moving on to think about the changes you have made to your products or services or how you run or organise your business**

ASK AT RANDOM TO 1:10 RESPONDENTS

**C1. What is it that you think of as ‘innovation’? What does it mean within your firm?**

RECORD VERBATIM COMMENT

|  |
| --- |
|  |

ASK ALL

**C2. Have you introduced any new products or services or made any changes to the existing products or services which your firm sells over the last 12 months?**

|  |  |
| --- | --- |
| Yes – introduced new or made changes to existing | 1 |
| No | 2 |
| DO NOT READ OUT: Don’t know | 97 |
| DO NOT READ OUT: Refused | 98 |

ASK IF NOT MADE CHANGES OVER LAST 12 MONTHS (C2=2)

**C2A. Thinking about why you have made no changes to your products and services. To what extent would you agree or disagree with the following reasons?**

READ OUT. SINGLE CODE PER ROW. CATI TO ROTATE

READ OUT SCALE IN FULL FOR FIRST STATEMENT THEN REMIND AS NECESSARY

AS NECESSARY: **To what extent do you agree that this is a reason for you not making changes to your products/services?**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | Disagree strongly | Disagree slightly | Neither agree nor disagree  | Agree slightly | Agree strongly  | Don’t know |
| 1 | Making sufficient profit already | 1 | 2 | 3 | 4 | 5 | 97 |
| 2 | Uncertain demand | 1 | 2 | 3 | 4 | 5 | 97 |
| 3 | Lack of finance  | 1 | 2 | 3 | 4 | 5 | 97 |
| 4 | Lack of skills  | 1 | 2 | 3 | 4 | 5 | 97 |
| 5 | A lack of government support  | 1 | 2 | 3 | 4 | 5 | 97 |
| 6 | Regulation or legislation  | 1 | 2 | 3 | 4 | 5 | 97 |

ASK IF MADE CHANGES OVER LAST 12 MONTHS (C2=1)

**C3. Thinking about the products or services that your firm has sold over the last year, do these include…?**

SINGLE CODE. READ OUT.

|  |  |
| --- | --- |
| New or improved products  | 1 |
| New or improved services  | 2 |
| Both – new or improved products AND services | 3 |
| DO NOT READ OUT: Don’t know | 97 |
| DO NOT READ OUT: Refused | 98 |

ASK IF NEW OR IMPROVED PRODUCTS (C3=1 OR 3)

**C3b Thinking about the new products you have introduced, were any of them new to the market, by which I mean they were introduced before your competitors?**

SINGLE CODE. READ OUT

|  |  |
| --- | --- |
| Yes – at least some are new to the market  | 1 |
| No – all just new to the firm  | 2 |
| DO NOT READ OUT: Don’t know | 97 |
| DO NOT READ OUT: Refused | 98 |

ASK IF NEW OR IMPROVED SERVICES (C3=2 OR 3)

**C3c Thinking about the new services you have introduced, were any of them new to the market, by which I mean they were introduced before your competitors?**

SINGLE CODE. READ OUT

|  |  |
| --- | --- |
| Yes – at least some are new to the market  | 1 |
| No – all just new to the firm  | 2 |
| DO NOT READ OUT: Don’t know | 97 |
| DO NOT READ OUT: Refused | 98 |

ASK IF MADE CHANGES OVER LAST 12 MONTHS (C2=1)

**C6. Have you experienced any significant barriers which have restricted your product or service development activity during the last year?**

|  |  |
| --- | --- |
| Yes | 1 |
| No | 2 |
| DO NOT READ OUT: Don’t know | 97 |
| DO NOT READ OUT: Refused | 98 |

IF YES AT C2 AND YES AT C6

**C6A Did these barriers relate to…?:**

CATI TO ROTATE 1-8. READ OUT. MULTICODE ALLOWED

|  |  |  |
| --- | --- | --- |
| A | Uncertain demand  | 1 |
| B | Technology risks  | 2 |
| C | Lack of finance | 3 |
| D | Lack of skills or qualified personnel | 4 |
| E | Lack of government support  | 5 |
| F | Regulation or legislation | 6 |
| G | Cost of doing business crisis  | 7 |
| H | (ONLY IF A2=2,3,OR 4) Group investment decisions or policy  | 8 |
| I | The COVID-19 pandemic | 9 |
|  | DO NOT READ OUT: None of these | 96 |
|  | DO NOT READ OUT: Don’t know | 97 |

|  |
| --- |
| **D. PROCESS AND BUSINESS MODEL CHANGES** |

READ OUT TO ALL

**Moving on now to think about business structures and the processes you use within your business.**

ASK ALL

**D1. Have you made any changes to the processes which you use to produce goods or deliver services over the last 12 months?**

|  |  |
| --- | --- |
| Yes | 1 |
| No | 2 |
| DO NOT READ OUT: Don’t know | 97 |
| DO NOT READ OUT: Refused | 98 |

ASK. IF MADE CHANGES TO PROCESSES (D1=1)

**D1a. Did these process changes lead to any cost savings?**

SINGLE CODE. PROMPT AS PER PRECODES.

|  |  |
| --- | --- |
| Yes – there were cost savings | 1 |
| No - costs actually increased | 2 |
| No - costs stayed the same | 3 |
| DO NOT READ OUT: Don’t know | 97 |
| DO NOT READ OUT: Refused | 98 |

ASK IF COST SAVINGS (D1A=1)

**D1B. Approximately how much did costs fall due to these changes to the processes which you use over the last 12 months?**

READ OUT AS NECESSARY – SINGLE CODE.

|  |  |
| --- | --- |
| Less than 10 per cent  | 1 |
| 10-19 per cent | 2 |
| 20-29 per cent  | 3 |
| 30-39 per cent | 4 |
| 40-49 per cent  | 5 |
| 50-75 per cent | 6 |
| More than 75 per cent | 7 |
| DO NOT READ OUT: Don’t know | 97 |
| DO NOT READ OUT: Refused | 98 |

ASK ALL

**D2. Now thinking more broadly about the way in which your business is organised. Over the last 12 months did you make major changes to:**

READ OUT. MULTICODE ALLOWED. CATI TO ROTATE 1-4.

|  |  |
| --- | --- |
| Business practices  | 1 |
| Methods of organising work and decision making  | 2 |
| Methods of organising external relationships  | 3 |
| Marketing concepts or strategies  | 4 |
| DO NOT READ OUT: None of these | 96 |
| DO NOT READ OUT: Don’t know | 97 |
| DO NOT READ OUT: Refused | 98 |

ASK IF MADE CHANGES TO PRODUCTS, SERVICES, PROCESSES, PRACTICES, METHODS OR CONCEPTS (C2=1 OR D1=1 OR D2=1-4)

**D2A. Thinking about all of the** <IF C2=1 **product, service,**><IF D1=1 **process>** <(IF C2=1 OR D1=1) AND D2=1-4 **and**><IF D2=1-4 **organisational**> **changes you have made over the last 12 months. How important have they been in helping you to…?**

READ OUT – SINGLE CODE – CATI TO RANDOMISE

READ OUT SCALE IN FULL FOR FIRST STATEMENT THEN REMIND AS NECESSARY

AS NECESSARY: **How important have the changes you have made been in helping you to do this?**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Not at all important | Not very important | Neither important nor unimportant | Fairly important | Very important | Don’t know |
| Increase efficiency | 1 | 2 | 3 | 4 | 5 | 97 |
| Increase sales  | 1 | 2 | 3 | 4 | 5 | 97 |
| Increase profit margins  | 1 | 2 | 3 | 4 | 5 | 97 |
| Sustain cash flow | 1 | 2 | 3 | 4 | 5 | 97 |
| Reduce environmental impact | 1 | 2 | 3 | 4 | 5 | 97 |
| Generate social or community benefits  | 1 | 2 | 3 | 4 | 5 | 97 |

ASK ALL

**D3. Over the last year has your company undertaken any Research and Development (R&D), either in-house or contracted out?**

SINGLE CODE – PROBE AS PER PRECODES

|  |  |
| --- | --- |
| In-house R&D | 1 |
| Contracted out R&D | 2 |
| Both | 3 |
| No – not conducted any R&D in last 12 months | 4 |
| DO NOT READ OUT: Don’t know | 97 |
| DO NOT READ OUT: Refused | 98 |

ASK ALL

**D4. Over the last year has your company purchased any machinery, equipment or software as part of changes to products, services or processes within your organisation?**

SINGLE CODE.

|  |  |
| --- | --- |
| Yes | 1 |
| No | 2 |
| DO NOT READ OUT: Don’t know | 97 |
| DO NOT READ OUT: Refused | 98 |

ASK ALL

**D5. To help with product or service development, or organisational changes, did your business invest in any of the following over the last year?**

READ OUT. MULTICODE ALLOWED. CATI TO ROTATE

|  |  |
| --- | --- |
| Licensing of patents or know-how from other organisations | 1 |
| Training specifically linked to product/service changes  | 2 |
| Product or service design  | 3 |
| Market introduction of innovations (e.g. market research, launch advertising) | 4 |
| Developing new marketing relationships or channels | 5 |
| DO NOT READ OUT: None of these | 96 |
| DO NOT READ OUT: Don’t know | 97 |
| DO NOT READ OUT: Refused | 98 |

|  |
| --- |
| **E. ECO-SYTEM INTERACTION AND PARTNERING** |

READ OUT TO ALL

**E1 To help with product/service development, or organisational changes, did your business collaborate with any external partners over the last 12 months?**

SINGLE CODE.

|  |  |
| --- | --- |
| Yes | 1 |
| No | 2 |
| DO NOT READ OUT: Don’t know | 97 |
| DO NOT READ OUT: Refused | 98 |

ASK IF COLLABORATED WITH EXTERNAL PARTNERS (E1=1)

**E1B Which types of partners did you collaborate with over the last 12 months?**

DO NOT READ OUT - PROBE AS PER PRECODES. MULTICODE 1-11.

INTERVIEWER NOTE: R&D STANDS FOR ‘RESEARCH AND DEVELOPMENT’

|  |  |
| --- | --- |
| Suppliers of equipment, materials, services or software | 1 |
| Clients or customers | 2 |
| Other businesses  | 3 |
| Accelerators, incubators or science parks | 5 |
| Technology hubs or innovation centres (e.g. Catapults) | 6 |
| Consultants, commercial labs or private R&D institutes | 8 |
| Universities or other higher education institutions | 9 |
| Government or public research institutes | 10 |
| Business support providers (e.g. Growth Hubs, IUK Edge ) | 11 |
| DO NOT READ OUT: None of these | 96 |
| DO NOT READ OUT: Don’t know | 97 |
| DO NOT READ OUT: Refused | 98 |

ASK FOR EACH IDENTIFIED CODES 1-11 AT E1B

**E1C And were these collaborators based locally or were they more widely spread?**

ADD AS NECESSARY: **By locally I mean within 15 miles of your business**

CATI TO ONLY SHOW CODES 1-11 SELECTED AT E1B – READ OUT

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Locally | Wider | DO NOT READ OUT:Both | DO NOT READ OUTDon’t know |
| Suppliers of equipment, materials, services or software | 1 | 2 | 3 | 97 |
| Clients or customers | 1 | 2 | 3 | 97 |
| Other businesses | 1 | 2 | 3 | 97 |
| Accelerators, incubators or science parks | 1 | 2 | 3 | 97 |
| Technology hubs or innovation centres (e.g. Catapults) | 1 | 2 | 3 | 97 |
| Consultants, commercial labs or private R&D institutes | 1 | 2 | 3 | 97 |
| Universities or other higher education institutions | 1 | 2 | 3 | 97 |
| Government or public research institutes | 1 | 2 | 3 | 97 |
| Business support providers (e.g. Growth Hubs, IUK Edge ) | 1 | 2 | 3 | 97 |

|  |
| --- |
| **G. R&D AND INNOVATION: PEOPLE** |

CATI TO RANDOMLY ASSIGN TO GROUP 1 OR 2 – GROUP 1 TO BE ASKED SECTION G AND GROUP 2 SECTION H

READ OUT TO ALL (GROUP 1)

**Now I would like to ask you about the people in your business who are involved in delivering and implementing changes to products or services in your organisation.**

ASK ALL(GROUP 1)

**G1: How many people are involved in delivering or implementing changes to products or services in your organisation?**

ENTER NUMBER

|  |
| --- |
| ENTER NUMBER (RANGE=0-999) |
| DO NOT READ OUT: Don’t know | 97 |
| DO NOT READ OUT: Refused | 98 |

ASK IF AT LEAST 1 PERSON INVOLVED IN DELIVERING/IMPLEMENTING CHANGES (G1>=1)

**G1a. How many, if any, of this team are women?**

ENTER NUMBER

|  |
| --- |
| ENTER NUMBER (RANGE=0-NUMBER AT G1) |
| DO NOT READ OUT: Don’t know | 97 |
| DO NOT READ OUT: Refused | 98 |

ASK IF AT LEAST 1 PERSON INVOLVED IN DELIVERING/IMPLEMENTING CHANGES (G1>=1)

**G1b. How many, if any, of this team are from ethnic minority groups?**

ENTER NUMBER

|  |
| --- |
| ENTER NUMBER (RANGE=0-NUMBER AT G1) |
| DO NOT READ OUT: Don’t know | 97 |
| DO NOT READ OUT: Refused | 98 |

ASK ALL (GROUP 1)

**G2. Over the last year have your research and development or product/service development activities been restricted by difficulties recruiting staff?**

SINGLE CODE.

|  |  |  |
| --- | --- | --- |
| Yes | 1 |  |
| No | 2 |  |
| DO NOT READ OUT: Don’t know | 97 |  |
| DO NOT READ OUT: Refused | 98 |  |

ASK IF R&D ACTIVITIES RESTRICTED (G2=1)

**G2a. Which of the following skill groups did you have difficulties recruiting?**

READ OUT. MULTICODE CODES 1-11. KEEP ORDER

|  |  |
| --- | --- |
| Scientific staff  | 1 |
| Post-doctoral research staff | 2 |
| Graduate level technical or scientific staff | 3 |
| Technicians | 4 |
| Software developers | 5 |
| Product Designers | 6 |
| Engineering staff  | 7 |
| Other (SPECIFY) | 11 |
| DO NOT READ OUT: None of these | 96 |
| DO NOT READ OUT: Don’t know | 97 |
| DO NOT READ OUT: Refused | 98 |

|  |
| --- |
| **H. FINANCING INNOVATION** |

CATI TO RANDOMLY ASSIGN TO GROUP 1 OR 2 – GROUP 1 TO BE ASKED SECTION G AND GROUP 2 SECTION H

ASK ALL (GROUP 2)

H1. **Have you tried to obtain any external finance for your firm in the past 12 months?**

|  |  |
| --- | --- |
| Yes  | 1 |
| No | 3 |
| DO NOT READ OUT Don’t know | 97 |
| DO NOT READ OUT Refused | 98 |

Ask IF TRIED TO GET EXTERNAL FUNDING In last 12 months (H1=1)

H1A. **Which of the following** **types of finance has your firm sought in the last 12 months? Please include applications for all types of finance including where you failed to obtain it.**

READ OUT. MULTICODE OK

|  |  |
| --- | --- |
| Equity Finance, e.g. where a share of the business is sold to investors or other people | 4 |
|  Loan from a bankor other financial institution | 8 |
| Loan from a Peer to peer platform | 11 |
| Innovate UK grants or loans  | 14 |
| Other government or local authority grants | 15 |
| Or any other type of finance (SPECIFY) | 16 |
| DO NOT READ OUT Don’t know | 97 |
| DO NOT READ OUT Refused | 98 |

ASK IF CONDUCT R&D OR NPD (C2=1 OR D3=1-3) AND (GROUP 2)

**H2. And over the last year how did you fund any R&D and product/service development activity?**

READ OUT CODES 1-6, MULTICODE POSSIBLE

|  |  |
| --- | --- |
| Internal funding  | 1 |
| Grants from Innovate UK or elsewhere | 2 |
| Government loans | 3 |
| Loans from banks or other finance providers | 4 |
| Equity finance (AS NECESSARY: where a share of the business is sold to investors or other people) | 5 |
| R&D tax relief | 8 |
| Or some other form of finance (SPECIFY) | 6 |
| DO NOT READ OUT: Did not undertake any R&D or product/service development | 7 |
| DO NOT READ OUT: Don’t know | 97 |
| DO NOT READ OUT: Refused | 98 |

ASK IF ACCESSED FINANCE (H2=1-6)

**H2b. And was your R&D or product/service development activity restricted by a lack of or limited funding from any sources?**

SINGLE CODE.

|  |  |
| --- | --- |
| Yes – R&D restricted by funding | 1 |
| No | 2 |
| Don’t know | 97 |
| Refused | 98 |

ASK IF R&D OR PRODUCT/SERVICE DEVELOPMENT ACTIVITY RESTRICTED (H2B=1)

**H2a. Which sources of funding restricted your R&D activity?**

READ OUT, MULTICODE POSSIBLE.

|  |  |
| --- | --- |
| Internal funding  | 1 |
| Grants or loans from Innovate UK or elsewhere | 2 |
| Government loans | 3 |
| Loans from banks or other finance providers | 4 |
| Equity finance | 5 |
| R&D tax relief | 7 |
| Or any other form of finance (SPECIFY) | 6 |
| DO NOT READ OUT: Don’t know | 97 |
| DO NOT READ OUT: Refused | 98 |

|  |
| --- |
| **K. SUPPORTING INNOVATION** |

READ OUT TO ALL

**Now I would like to move on to discuss the sources of advice and information you use when running your business**

ASK ALL

K1. **In the last 12 months have you sought external advice or information on matters affecting your business? We are only interested when this has been more than a casual conversation.**

 SINGLE CODE.

|  |  |
| --- | --- |
| Yes  | 1 |
| No | 2 |
| DO NOT READ OUT: Don’t know | 97 |

ASK ALL RECEIVING ADVICE/INFORMATION (K1=1)

K1A. **Was the assistance or support that you used...?**

CATI TO ROTATE - READ OUT 1-9 – MULTICODE POSSIBLE

|  |  |
| --- | --- |
| Information relating to the day to day running of your business | 1 |
| Strategic advice to help grow your business  | 4 |
| Advice/support around digital technologies  | 5 |
| Support with net zero or reducing environmental impacts | 6 |
| Help with introducing new or upgraded goods or services  | 8 |
| Other (SPECIFY) | 10 |
| DO NOT READ OUT: None of these | 96 |
| DO NOT READ OUT: Don’t know | 97 |

ASK ALL WHO HAVE RECEIVED INFORMATION/ADVICE (K1=1)

K1B. **And who has provided this advice or information to you over the last 12 months?**

INTERVIEWER RECORD FULLY ALL SUPPORT PROVIDERS USED

|  |
| --- |
|  |

CODEFRAME FOR K1B

|  |  |
| --- | --- |
| Accountant | 1 |
| Bank | 2 |
| Business networks/trade associations | 3 |
| (WALES ONLY) Business Wales | 4 |
| Catapult network  | 5 |
| Consultant/general business adviser | 6 |
| Chamber of Commerce | 7 |
| (Specialist) financial adviser | 8 |
| Friend or family member | 9 |
| .GOV website | 10 |
| Innovate UK Edge | 11 |
| Internet search/google/other websites | 12 |
| (NORTHERN IRELAND ONLY) Inter-Trade Ireland | 13 |
| (NORTHERN IRELAND ONLY) Invest NI | 14 |
| Knowledge Transfer Network  | 15 |
| Local Council/Authority | 16 |
| Local Enterprise Partnerships | 17 |
| (NORTHERN IRELAND ONLY) NI Business Info website | 18 |
| Solicitor/lawyer | 19 |
| Tax agent | 20 |
| The Pensions Regulator | 21 |
| Universities/other education sector | 22 |
| Work colleagues | 23 |
| Find business support website | 24 |
| Other (SPECIFY) | 95 |
| None/have not sought information or advice/will not seek it  | 96 |
| Don't know | 97 |

ASK ALL

**K2 Thinking about the next year, are you likely to seek external support with developing your business or your products/services?**

SINGLE CODE. PROBE AS PER PRECODES

|  |  |
| --- | --- |
| Yes, business development | 1 |
| Yes, product/service development  | 2 |
| Yes, probably both business and product/service development | 3 |
| No – not likely to seek external support  | 4 |
| DO NOT READ OUT Don’t know | 97 |

|  |
| --- |
| **J. PROSPECTS FOR THE NEXT YEAR** |

READ OUT TO ALL

**Finally I would like to ask you some questions about your future plans for your business and the future business environment**

ASK ALL

**J4. Is your business planning to engage in R&D or new product/service development over the next 12 months?**

SINGLE CODE.

|  |  |
| --- | --- |
| Yes  | 1 |
| No | 2 |
| Don’t know | 97 |
| Refused | 98 |

IF PLANNING TO ENGAGE IN R&D OR NPD OVER NEXT 12 MONTHS (J4=1)

**J1. Thinking about R&D and developing new products/services over the next 12 months. Are you likely to…?**

READ OUT. SINGLE CODE.

|  |  |
| --- | --- |
| Keep investment at current levels  | 1 |
| Increase investment | 2 |
| Or decrease investment  | 3 |
| DO NOT READ OUT: Don’t know | 97 |
| DO NOT READ OUT: Refused | 98 |

ASK IF J1= 2 OR 3

**J1a. By approximately what percentage are you planning to** <J1=2 **INCREASE**> <J1=3 **DECREASE**> **investment in R&D or product/service development over the next 12 months?**

PROBE FOR AN ESTIMATE AND ENTER PERCENTAGE

|  |  |
| --- | --- |
| ENTER PERCENTAGE (IF DECREASED, RANGE = 1-100%; IF INCREASED, RANGE = 1-999%) |   |
| DO NOT READ OUT: Don’t know | 97 |
| DO NOT READ OUT: Refused | 98 |

IF PLANNING TO ENGAGE IN R&D OR NPD OVER NEXT 12 MONTHS (J4=1)

**J3 Thinking about your R&D and innovation activity over the next 12 months, can you tell me how useful each of the following would be in helping with your R&D and innovation activity?**

CATI TO ROTATE. READ OUT – SINGLE CODE PER ROW.

READ OUT SCALE IN FULL FOR FIRST STATEMENT THEN REMIND AS NECESSARY

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  | Not useful | Somewhat useful | Very useful | Don’t know | N/A |
| A | Innovation Loans | 1 | 2 | 3 | 97 | 95 |
| B | R&D or innovation grants | 1 | 2 | 3 | 97 | 95 |
| C | R&D tax credits | 1 | 2 | 3 | 97 | 95 |
| E | Intellectual property support  | 1 | 2 | 3 | 97 | 95 |
| F | Marketing or export support | 1 | 2 | 3 | 97 | 95 |
| G | Strategy advice or support  | 1 | 2 | 3 | 97 | 95 |
| H | Help finding innovation partners  | 1 | 2 | 3 | 97 | 95 |

|  |
| --- |
| **N. CLOSING QUESTIONS** |

READ OUT TO ALL

That’s the end of the interview, thank you very much for your time. I just need to run through a few questions to ask your permission for how we use your data.

ASK ALL

**N1A If you would like, we can email you a summary report of our findings as a thank you for taking part once the research has been completed**. **Would you like us to email you the report?**

SINGLE CODE.

|  |  |  |
| --- | --- | --- |
| Yes | 1 |  |
| No | 2 |  |

ASK IF N1A =1

**N1B And can I take a note of your email address please?**

 SINGLE CODE.

|  |  |  |
| --- | --- | --- |
| Yes – WRITE IN EMAIL | 1 |  |
| No | 2 |  |

ASK ALL

**N2 The research team at Innovate UK and Warwick University may be conducting some more detailed research on the issues we have covered.**

**Would you be willing for us to pass on your contact details and relevant survey responses to them so that they could invite you to take part?**

**You may not be contacted and, if you are, there is no obligation to take part. Your contact details will be stored for a maximum duration of 3 years, before being securely destroyed.**

 SINGLE CODE

|  |  |  |
| --- | --- | --- |
| Yes  | 1 |  |
| No | 2 |  |

ASK ALL AGREEING TO FURTHER CONTACT (N2=1)

**N3 And can I just confirm the best number to contact you on is [**SHOW TELEPHONE NUMBER**]?**

 SINGLE CODE.

|  |  |  |
| --- | --- | --- |
| Yes | 1 |  |
| No - write in number | 2 |  |

ASK ALL AGREEING TO FURTHER CONTACT (N2=1) AND N1A=2

**N3B And can I take a note of your email address please?**

 SINGLE CODE.

|  |  |  |
| --- | --- | --- |
| Yes – WRITE IN EMAIL | 1 |  |
| No | 2 |  |

ASK ALL AGREEING TO FURTHER CONTACT (N2=1)

**N3C And can I just confirm your name?**

SINGLE CODE.

|  |  |  |
| --- | --- | --- |
| Yes - Write in name | 1 |  |
| No – refused | 2 |  |

ASK ALL

**N4 It is sometimes possible to link the data we have collected with other government surveys or datasets to enable further statistical analysis. Would you be happy for this to be done?**

SINGLE CODE.

ADD IF NECESSARY: **Your confidentiality will be maintained, and linked data will be anonymised and only used for statistical purposes.**

|  |  |  |
| --- | --- | --- |
| Yes | 1 |  |
| No | 2 |  |

READ OUT TO ALL

**Finally, I would just like to confirm that this survey has been carried out by OMB Research Ltd and within the rules of the MRS Code of Conduct.**

# Annex 3: Data Tables

|  |
| --- |
| Data for ISNS 2023 Report  |
|   | **Figure 2.1** | **Figure 2.2** | **Figure 2.6** | **Figure 2.7** | **Figure 2.8** |
| Exporting (% firms) | % annual growth in sales (nominal) | Product or service change (past year) (% firms) | Innovation (% firms) | New-to-Firm/market innovation (% firms) |
| Product only  | Service only  | Both product and service  | Wholly New-to-Firm | Some New-to-Market |
|  UK average | 42.2 | 6.9 | 61.4 | 17.2 | 13.7 | 30.4 | 32.5 | 28.3 |
|   |   |   |   |   |   |   |   |   |
| North East | 41.9 | 5.6 | 47.0 | 12.0 | 14.6 | 20.4 | 22.7 | 24.3 |
| North West | 46.1 | 3.2 | 64.1 | 12.9 | 20.3 | 30.9 | 34.5 | 29.6 |
| Yorks & Humber | 32.4 | 5.5 | 50.4 | 17.1 | 9.2 | 24.2 | 14.8 | 35.6 |
| East Midlands | 36.2 | 3.6 | 67.2 | 19.3 | 13.5 | 34.4 | 30.3 | 36.9 |
| West Midlands | 43.7 | 4.9 | 59.3 | 15.9 | 16.3 | 27.1 | 29.2 | 30.1 |
| East of England | 34.8 | 8.6 | 57.1 | 12.9 | 9.6 | 34.0 | 34.6 | 22.6 |
| London  | 49.8 | 7.6 | 65.5 | 20.1 | 18.5 | 26.9 | 31.3 | 34.2 |
| South East | 40.6 | 7.4 | 59.0 | 17.2 | 12.6 | 29.2 | 30.2 | 28.8 |
| South West | 42.6 | 10.8 | 58.2 | 20.0 | 7.7 | 30.5 | 39.2 | 19.1 |
| Scotland | 43.7 | 6.2 | 63.2 | 18.4 | 12.8 | 32.0 | 34.3 | 28.9 |
| Wales | 27.2 | 8.0 | 70.0 | 19.4 | 14.5 | 34.2 | 46.7 | 23.3 |
| Northern Ireland | 68.6 | 6.0 | 69.4 | 16.2 | 6.3 | 46.9 | 48.9 | 20.5 |
|   |   |   |   |   |   |   |   |   |
| Large | 69.8 | 10.8 | 74.7 | 21.8 | 20.9 | 32.0 | 14.6 | 60.1 |
| Medium | 69.4 | 6.4 | 69.4 | 23.3 | 19.6 | 26.5 | 23.1 | 46.3 |
| Small | 43.1 | 7.3 | 63.0 | 15.8 | 13.4 | 33.7 | 35.8 | 27.2 |
| Micro | 35.9 | 6.4 | 56.8 | 17.3 | 12.4 | 26.8 | 31.0 | 25.8 |
|   |   |   |   |   |   |   |   |   |
| Frontier | 54.6 | 11.0 | 74.0 | 20.9 | 13.9 | 39.2 | 22.8 | 51.3 |
| Non-Frontier | 38.3 | 5.6 | 57.4 | 16.0 | 13.6 | 27.6 | 35.9 | 21.5 |
|   |   |   |   |   |   |   |   |   |
| Primary | 21.7 | 5.4 | 36.6 | 10.5 | 11.3 | 13.6 | 23.7 | 12.9 |
| Manufacturing | 60.7 | 7.7 | 59.8 | 26.8 | 5.6 | 27.4 | 25.3 | 34.5 |
| Construction  | 16.8 | 6.1 | 37.1 | 11.7 | 6.4 | 19.1 | 17.1 | 20.0 |
| Retail/Distribution | 41.4 | 1.9 | 70.4 | 30.6 | 5.2 | 34.3 | 34.9 | 35.5 |
| Transport/Storage | 45.7 | 4.6 | 48.5 | 3.5 | 27.0 | 17.9 | 35.1 | 13.4 |
| Hotel/Catering | 41.8 | 12.7 | 76.1 | 15.9 | 9.4 | 50.8 | 42.4 | 33.6 |
| Finance  | 55.8 | 4.9 | 55.4 | 10.6 | 27.3 | 17.5 | 27.3 | 28.1 |
| Business Services  | 52.5 | 12.9 | 57.8 | 10.4 | 20.3 | 26.8 | 32.4 | 25.5 |
| Other Services | 38.7 | 3.2 | 62.1 | 13.7 | 20.7 | 27.7 | 35.0 | 27.1 |

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| Data for ISNS 2023 Report (Continued) |
|  | **Figure 2.9** | **Figure 2.11** | **Figure 2.13** | **Figure 2.14** | **Figure 2.15** | **Figure 2.17** | **Figure 2.18** |
| Process innovation (past year) % firms | Innovation diversity (Average) | Invested in R&D (Past year) % firms | Restricted external funding for R&D/innovation (% firms) | Experience innovation barriers (% firms) | % of innovation team that are female (Averaged) | % of innovation team that are ethnic minority (Averaged) |
|
|  UK average | 45.8 | 2.30 | 39.1 | 28.3 | 51.5 | 37.1 | 15.4 |
|   |   |   |   |   |   |   |   |
| North East | 37.9 | 1.89 | 41.3 | 31.4 |  53.6  | 51.0 | 8.8 |
| North West | 47.3 | 2.40 | 45.3 | 22.5 |  49.4  | 39.9 | 18.1 |
| Yorks & Humber | 40.7 | 2.05 | 33.1 | 19.9 |  45.6  | 43.5 | 11.3 |
| East Midlands | 55.6 | 2.62 | 35.6 | 23.9 |  49.9  | 24.4 | 4.9 |
| West Midlands | 47.0 | 2.47 | 41.2 | 30.9 |  57.0  | 40.5 | 20.5 |
| East of England | 38.8 | 2.22 | 29.8 | 18.7 |  47.3  | 44.8 | 12.9 |
| London  | 47.9 | 2.35 | 46.1 | 37.9 |  54.1  | 34.0 | 41.8 |
| South East | 48.5 | 2.18 | 36.5 | 37.5 |  51.6  | 32.4 | 8.4 |
| South West | 45.8 | 2.38 | 42.9 | 29.1 |  56.2  | 32.9 | 8.5 |
| Scotland | 43.1 | 2.20 | 26.6 | 35.9 |  53.5  | 42.9 | 2.4 |
| Wales | 43.2 | 2.52 | 37.3 | 19.3 |  46.8  | 38.3 | 3.9 |
| Northern Ireland | 32.1 | 2.01 | 39.7 | 3.9 |  51.3  | 45.9 | 17.2 |
|   |   |   |   |   |   |   |   |
| Large | 59.3 | 2.96 | 80.0 | 45.0 | 57.9 | 38.1 | 27.9 |
| Medium | 56.4 | 2.72 | 63.3 | 39.9 | 53.7 | 41.2 | 18.8 |
| Small | 46.6 | 2.29 | 38.7 | 24.1 | 49.4 | 40.4 | 15.3 |
| Micro | 42.1 | 2.21 | 33.6 | 30.2 | 53.9 | 33.4 | 14.8 |
|   |   |   |   |   |   |   |   |
| Frontier | 56.0 | 2.80 | 53.8 | 28.6 | 53.5 | 40.3 | 18.0 |
| Non-Frontier | 42.7 | 2.17 | 34.4 | 28.2 | 50.7 | 36.1 | 14.2 |
|   |   |   |   |   |   |   |   |
| Primary | 41.7 | 1.76 | 40.6 | 36.4 | 48.6 | 30.7 | 2.3 |
| Manufacturing | 45.2 | 2.20 | 53.1 | 17.3 | 52.9 | 28.9 | 6.4 |
| Construction  | 32.4 | 1.68 | 36.8 | 33.0 | 52.7 | 22.5 | 10.8 |
| Retail/Distribution | 45.9 | 2.40 | 33.2 | 28.2 | 56.0 | 36.1 | 16.2 |
| Transport/Storage | 33.4 | 1.97 | 17.4 | 16.3 | 51.8 | 23.0 | 7.5 |
| Hotel/Catering | 52.2 | 2.77 | 29.1 | 31.5 | 47.0 | 47.9 | 22.9 |
| Finance  | 53.0 | 2.44 | 43.5 | 9.4 | 43.0 | 40.2 | 18.2 |
| Business Services  | 48.2 | 2.37 | 48.4 | 34.8 | 48.6 | 36.7 | 17.1 |
| Other Services | 46.4 | 2.28 | 39.1 | 26.3 | 53.8 | 46.1 | 17.5 |

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| Data for ISNS 2023 Report (Continued) |
|  | Figure 2.19 | Figure 2.21 | Figure 2.23 | Figure 3.1 |
| Experience difficulty recruiting for innovation (% firms) | External partnership for innovation (% firms) | Seeking external advice for business purpose (% firms) | Intends to invest in R&D in next 12 months (% firms) |
|  UK average |  39.3  | 40.9 | 34.8 | 53.0 |
|   |   |   |   |   |
| North East | 43.2 | 45.5 | 31.6 |  59.5  |
| North West | 37.8 | 47.5 | 38.2 |  54.4  |
| Yorks & Humber | 35.3 | 38.7 | 32.9 |  54.0  |
| East Midlands | 40.2 | 36.8 | 36.1 |  49.6  |
| West Midlands | 44.3 | 49.5 | 39.6 |  49.9  |
| East of England | 56.6 | 40.2 | 31.0 |  43.0  |
| London  | 43.2 | 45.3 | 40.9 |  65.1  |
| South East | 34.1 | 35.7 | 29.9 |  51.1  |
| South West | 22.9 | 35.5 | 32.7 |  49.3  |
| Scotland | 41.1 | 40.4 | 35.9 |  44.8  |
| Wales | 46.7 | 30.7 | 22.8 |  54.8  |
| Northern Ireland | 43.5 | 35.8 | 36.7 |  49.3  |
|   |   |   |   |   |
| Large | 48.9 | 62.9 | 48.2 |  81.6  |
| Medium | 45.0 | 53.2 | 48.2 |  73.2  |
| Small | 40.9 | 40.7 | 36.0 |  55.8  |
| Micro | 36.7 | 37.7 | 30.2 |  44.7  |
|   |   |   |   |   |
| Frontier |  38.3  | 49.0 | 43.9 | 71.8 |
| Non-Frontier |  39.7  | 38.5 | 32.0 | 46.9 |
|   |   |   |   |   |
| Primary | 50.5 | 40.5 | 50.9 |  47.0  |
| Manufacturing | 31.6 | 43.1 | 31.2 |  60.4  |
| Construction  | 27.0 | 24.8 | 20.9 |  35.1  |
| Retail/Distribution | 35.9 | 33.1 | 33.5 |  52.9  |
| Transport/Storage | 22.5 | 31.8 | 20.8 |  27.4  |
| Hotel/Catering | 47.6 | 36.1 | 37.4 |  55.0  |
| Finance  | 31.9 | 54.1 | 44.6 |  48.6  |
| Business Services  | 40.4 | 48.3 | 34.5 |  58.3  |
| Other Services | 49.0 | 49.1 | 39.7 |  54.4  |

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| Data for ISNS 2023 Report (Continued) |
|  | Figure 3.2 | Figure 3.4 |
|   | Future R&D investment (% firms) | Likelihood of seeking external support/advice over the next year for: (% firms) |
|   | Keep current level of R&D investment | Increase R&D investment  | Decrease R&D investment  | Business development | Product & service development | Both business and product development | Not likely to Seek external support |
|  UK average | 42.2 | 52.1 | 5.8 | 13.0 | 10.7 | 21.2 | 55.1 |
|   |   |   |   |   |   |   |   |
| North East |  24.9  |  73.5  |  1.5  |  7.7  |  3.5  |  28.1  |  60.7  |
| North West |  42.1  |  55.1  |  2.8  |  19.0  |  6.9  |  23.6  |  50.5  |
| Yorks & Humber |  41.5  |  54.3  |  4.2  |  13.6  |  7.6  |  17.1  |  61.6  |
| East Midlands |  50.5  |  47.6  |  2.0  |  9.5  |  12.8  |  15.0  |  62.7  |
| West Midlands |  40.3  |  46.3  |  13.5  |  15.9  |  16.3  |  21.0  |  46.9  |
| East of England |  30.6  |  67.2  |  2.2  |  12.4  |  11.1  |  18.7  |  57.8  |
| London  |  43.8  |  53.6  |  2.6  |  13.9  |  18.4  |  24.1  |  43.7  |
| South East |  46.4  |  43.1  |  10.5  |  12.9  |  7.1  |  17.3  |  62.7  |
| South West |  43.7  |  49.7  |  6.7  |  7.9  |  8.1  |  17.6  |  66.4  |
| Scotland |  58.7  |  40.8  |  0.5  |  12.5  |  7.0  |  25.9  |  54.6  |
| Wales |  31.4  |  54.3  |  14.3  |  11.9  |  15.4  |  29.8  |  42.9  |
| Northern Ireland |  36.6  |  54.6  |  8.8  |  9.8  |  8.0  |  34.4  |  47.8  |
|   |   |   |   |   |   |   |   |
| Large |  38.1  |  60.5  |  1.5  | 20.3 | 28.7 | 27.5 | 23.5 |
| Medium |  32.6  |  61.8  |  5.6  | 21.0 | 20.0 | 24.2 | 34.9 |
| Small |  42.5  |  52.7  |  4.8  | 12.0 | 10.9 | 22.7 | 54.4 |
| Micro |  44.4  |  48.2  |  7.4  | 12.3 | 8.2 | 18.5 | 61.0 |
|   |   |   |   |   |   |   |   |
| Frontier | 41.2 | 51.6 | 7.2 | 15.9 | 14.2 | 22.3 | 47.6 |
| Non-Frontier | 42.7 | 52.3 | 5.1 | 12.1 | 9.6 | 20.8 | 57.6 |
|   |   |   |   |   |   |   |   |
| Primary |  36.0  |  49.9  |  14.1  | 9.2 | 7.8 | 31.8 | 51.3 |
| Manufacturing |  53.5  |  42.8  |  3.7  | 10.4 | 8.4 | 21.1 | 60.1 |
| Construction  |  25.9  |  68.3  |  5.8  | 9.7 | 5.5 | 16.8 | 68.0 |
| Retail/Distribution |  44.4  |  48.1  |  7.5  | 14.3 | 9.4 | 15.1 | 61.2 |
| Transport/Storage |  45.3  |  44.8  |  9.9  | 4.9 | 8.2 | 15.2 | 71.7 |
| Hotel/Catering |  41.8  |  54.5  |  3.7  | 11.6 | 11.4 | 25.1 | 51.8 |
| Finance  |  28.6  |  63.3  |  8.1  | 17.8 | 23.9 | 24.0 | 34.3 |
| Business Services  |  47.3  |  49.8  |  2.9  | 14.9 | 11.5 | 24.1 | 49.5 |
| Other Services |  37.0  |  55.5  |  7.6  | 14.4 | 13.1 | 21.9 | 50.6 |

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| Data for ISNS 2023 Report (Continued) |
| Figure 2.3: Turnover and employment growth of innovating and non-innovating firms (% firms) |
|   | Non-innovators | Innovators |
| % Employment growth over the last year (UK average) | 11.5 | 15.0 |
| % Sales growth over the last year (UK average) | 2.6 | 9.7 |
|   |
| Figure 2.4: Business objectives over year prior to the survey (% firms) |
| Increasing efficiency | 91.2 |
| Increasing sales  | 92.9 |
| Increasing profit margins | 90.3 |
| Sustaining cash flow | 93.7 |
| Reducing environmental impact | 72.2 |
|  Social or community benefits | 52.8 |
|   |  |   |
| Figure 2.5: Important means of achieving business objectives over the year prior to the survey (% firms) |
| Adopting new digital technologies | 65.9 |
| Introducing or upgrading prods/services | 77.6 |
| Developing delivery processes | 78.5 |
| Selling to new customers | 92.2 |
| Selling more to existing customers | 87.9 |

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| Data for ISNS 2023 Report (Continued) |
| Figure 2.10: Cost reductions due to process innovation (% firms achieving cost reductions) |
| Less than 10 per cent | 48.3 |
| 10-19 per cent | 30.2 |
| 20-29 per cent | 10.2 |
| 30-39 per cent | 2.0 |
| 40-49 per cent | 0.9 |
| 50-75 per cent | 0.8 |
| Above 75 per cent | 0.1 |
| Don’t know | 7.5 |
|   |   |
|   |   |
| Figure 2.12: Reasons for not innovating (% of non-innovating firms) |
| Lack of skills | 23.5 |
| Lack of finance | 29.4 |
| Regulation or legislation  | 30.6 |
| Lack of government support | 31.8 |
| Uncertain demand | 42.3 |
| Making sufficient profit | 44.3 |
|   |   |
|   |   |
| Figure 2.16: Barriers to innovation: all UK innovators (% of innovators) |
| Group investment decision | 6.8 |
| Technology risk | 13.1 |
| Lack of finance | 30.4 |
| Lack of gov't support | 30.9 |
| Lack of skills or qualified personnel | 35.4 |
| Uncertain demand | 38.2 |
| Regulations or legislation | 39.5 |
| Cost of doing business crisis | 51.0 |
| Covid -19 pandemic | 53.8 |

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| Data for ISNS 2023 Report (Continued) |
| Figure 2.20: Occupational breakdown of recruitment difficulties (% firms) |
| Scientific staff  | 6.4 |
| Post-doc researcher  | 5.8 |
| Graduate-level technician  | 18.6 |
| Technician  | 31.2 |
| Software developer  | 15.5 |
| Product designer  | 12.6 |
| Engineering staff  | 20.9 |
|   |  |  |   |
| Figure 2.22: Local and non-local collaboration (% firms) |
|   | Local | Non-local | Both  |
| Suppliers | 33.0 | 54.1 | 12.9 |
| Clients  | 33.8 | 44.0 | 22.3 |
| Other businesses  | 42.0 | 46.7 | 11.3 |
| Accelerators, incubators  | 15.9 | 58.2 | 25.9 |
| Technology hubs  | 43.2 | 44.7 | 12.1 |
| Consultants, commercial labs | 45.1 | 42.3 | 12.7 |
| Universities  | 49.5 | 29.1 | 21.4 |
| Public research institutes | 43.9 | 46.8 | 9.4 |
| Business support providers  | 30.7 | 40.7 | 28.6 |
|   |  |  |   |
| Figure 2.24: Seeking advice of different types (% firms) |
|   | Non-Frontier | Frontier  | All firms: UK average  |
| Product/service changes  | 39.7 | 49.8 | 42.8 |
| Net zero  | 21.0 | 33.6 | 24.8 |
| Digital technology  | 37.2 | 49.9 | 41.1 |
| Grow the business  | 48.0 | 54.3 | 49.9 |
| Running the business  | 55.4 | 54.0 | 55.0 |
|   |  |  |   |
| Figure 3.3: Planned increase in R&D by type of firm (mean % change)  |
| UK average | 9.0 |
|   |   |
| Large | 8.9 |
| Medium  | 9.0 |
| Small | 9.2 |
| Micro | 8.8 |
|   |   |
| Frontier | 8.9 |
| Non-Frontier | 9.1 |

1. OECD. (2005). *Oslo Manual - Guidelines for collecting and interpreting innovation data*, OECD, Paris. [↑](#footnote-ref-1)
2. Ebersberger, B., Loof, H. (2004). *Multinational enterprises, spillovers, innovation and productivity,* CESIS Working Paper 24, The Royal Institute of Technology, Sweden. [↑](#footnote-ref-2)