



UK Innovation Survey 2020 - 2022

00001 51440

Please write any changes to your name and address in the box below, using black ink

To be completed for: THE BUSINESS NAMED ABOVE

Please complete and return by 2 June 2023

Dear respondent,

Please find the questionnaire for the UK Innovation Survey attached. Please complete for the period 1 January 2020 to 31 December 2022. **If information is not available for calendar years, your return may cover the nearest financial years.** Once complete, the questionnaire can be returned by post or fax using the details in the box below.

If it would help, you can request an electronic **PDF version of the questionnaire** by mailing surveycomments@ons.gov.uk and quoting the survey code and reference number from the box below.

Innovation is at the heart of government policy to promote economic growth and productivity improvement. The information collected on the extent and type of business innovation activities, enables policy to be better designed and also provides businesses with a means of benchmarking themselves. Survey information may also be provided to other government departments, approved organisations and approved researchers for statistical purposes only.

Survey results are available at <https://www.gov.uk/government/collections/uk-innovation-survey>

Please note

Your response to this voluntary survey is of great value to government, whether or not you carry out innovation activities.

This survey is conducted by the Office for National Statistics (ONS) on behalf of the Department for Business and Trade (DBT) and the Department for Science, Innovation and Technology (DSIT).

We request that you complete this questionnaire for the business named above. All the information you provide is kept strictly confidential. It is illegal for us to reveal your data or identify your business to unauthorised persons.

Thank you for your co-operation,
Office for National Statistics

Questionnaire return details

To return via fax: 01633 652707

To return via post: Please use the prepaid envelope provided which is addressed to:
Office for National Statistics, Government Buildings, Cardiff Road, Newport, NP10 8XG

Contact numbers

If you would like to use our Minicom service for the Deaf 01633 815 044

To complete the questionnaire in Euros 01633 456978

For any other queries, please contact the **UKIS Survey Team** 0300 1234 931
or go to www.ons.gov.uk/surveys

When contacting the office you may be asked for the following information

Survey code: 144 **Reference number:** 144 4990 0000 000S **Period:** 202212

- Telephone calls may be recorded for training and quality purposes



UK Innovation Survey

Purpose of this survey:

The purpose of this survey is to collect information about innovation in the UK between 2020 - 2022. To be able to compare businesses with and without innovation activities, we ask all businesses to respond to **all** questions, unless otherwise instructed.

Information Required

- Information about the business's innovation activities
- Expenditure on innovation investment (product and process)

Definition of Innovation

- Innovation, for the purpose of this survey, is defined as **new or improved goods or services** as well as **business processes** used to produce or supply all goods or services that the business has introduced, regardless of their origin. These innovations may be new to the business or new to the market.
- Investments for future innovation and changes that the business has introduced at a **strategic** level (in organisation and practices) are also covered.

Basis for Completion

- Please complete this questionnaire for the business named on the front page.
- If this business is part of an enterprise group, please answer all questions for this business in the UK only. Do not include results for subsidiaries or parent enterprises.
- You can provide informed estimates if actual figures aren't available
- We will treat your data securely and confidentially
View more information about this survey, including the privacy notice here - <https://www.gov.uk/government/collections/uk-innovation-survey>

Instructions

This questionnaire will be scanned, therefore please:

- complete in **black ink**.
- ensure letters and numbers are PRINTED and centred within each box
- **do not** cross sevens or zeros



Section A - Business process innovation

This section asks for information about business process innovation. This refers to a new or improved business process for one or more business functions, that differs significantly from the firm's previous business processes, and which has been brought into use by the firm.

1.1 During the 3 year period 2020 to 2022 did this business introduce any of the following types of new or improved processes that differ significantly from the previous processes?

Include: all **new** and **significantly improved forms of**

- producing or developing goods or services
- organisation, business structures or practices aimed at raising internal efficiency or the effectiveness of approaching markets and customers.

Exclude:

- changes that are still in progress.

Please all that apply

- a. Methods for producing or developing goods or providing services 2330
- b. New **business practices** for organising procedures or external relations (for example first use of supply chain management, business re-engineering, knowledge management, lean production or quality management) 2310
- c. New methods of **organising work responsibilities, decision making or human resource management** (for example first use of a new system of employee responsibilities, team work, decentralisation, integration or de-integration of departments or education or training systems) 2320
- d. **Marketing methods for promotion, packaging, pricing, product placement or after sales services** (for example a marketing concept or strategy that differs significantly from your enterprise's existing marketing methods which has not been used before) 2340
- e. **Logistics, delivery or distribution methods** (for example transportation, service delivery, warehousing or order processing). 2350
- f. Methods for **information processing or communication**, the maintenance and provision of information and communication systems (for example hardware, software, data processing, database, maintenance, repair, web-hosting and other computer related information activities) 2360
- g. Methods for **accounting or administrative operations** (for example accounting, bookkeeping, auditing, payments, financial or insurance activities and procurement) 2370
- h. No significant changes 2380



If you did not engage in any of the following types of new or improved processes that differ significantly from the previous processes, please go to question 2

1.2 Who developed these process innovations?

- a. Your business by itself 1010
- b. Your business together with other businesses or organisations 1020
- c. Your business by adapting or modifying processes originally developed by other businesses or organisations 1030
- d. Other businesses or organisations 1040



Section B - Innovation investment

This section asks for information of innovation activities during the 3 year period 2020 to 2022 and investments in innovations in the calendar year 2022.

2. **During the 3 year period 2020 to 2022, did this business invest in any of the following, for the purposes of current or future innovation?**

Please all that apply

a. Internal Research and Development

This refers to creative and systematic work undertaken in order to increase the stock of knowledge – including knowledge of humankind, culture and society. It may be used to devise new applications of available knowledge. R&D activity must have elements of all these five criteria: novel, creative, uncertain, systematic, transferable or reproducible 1310

b. Acquisition of Research and Development

Include: creative work undertaken by companies, including other businesses within your group, or by public or private research organisations and purchased by your business 1320

c. Acquisition of machinery and equipment, computer hardware and software for innovation

Machinery and equipment

Major (i.e. capitalized) machinery and equipment acquired for use in the performance of innovation by the business 1331

Computer hardware

For example computer monitors and terminals, printers, keyboards and computer projectors, servers 1332

Computer software

For example program descriptions, extensions or supporting materials for systems and applications 1333

d. Acquisition of existing knowledge

Include: purchase or licensing of patents and non-patented inventions, know-how and other types of knowledge from other businesses or organisations 1340

e. Training for innovative activities

Include: internal or external training for your personnel, specifically for the development or implementation of new or improved goods, services and processes 1350

f. Any form of design activity

This refers to the design of goods or services (including artistic design) to develop a new or modified form, appearance or function for goods or services. Include engagement in design activities including strategic, for the development or implementation of new or improved goods, services and processes 1360

g. Market introduction of innovations

This refers to internal or external work intended to enhance reputation or brand values, either of the business as a whole or individual goods or service lines, as well as to support the market placement of new goods and services. Include changes to product or service design, market research, changes to marketing methods, advertising for a product or service launch

Changes to product or service design. 1371

Market research 1372

Changes to marketing methods 1373

Launch advertising 1374



3. How much did your business spend on each of the main innovation related investments in question 2 in the calendar year 2022?

Please estimate if no precise accounting data is available.

Include: both internal costs and purchases from outside the business

Please round to the nearest £ thousand

a. Internal Research and Development	£	<input type="text"/>	,	<input type="text"/>	,	<input type="text"/>	<input type="text"/>	<input type="text"/>	1410
b. Acquisition of Research and Development	£	<input type="text"/>	,	<input type="text"/>	,	<input type="text"/>	<input type="text"/>	<input type="text"/>	1420
c. Acquisition of machinery, equipment and software	£	<input type="text"/>	,	<input type="text"/>	,	<input type="text"/>	<input type="text"/>	<input type="text"/>	1430
d. Acquisition of existing knowledge	£	<input type="text"/>	,	<input type="text"/>	,	<input type="text"/>	<input type="text"/>	<input type="text"/>	1440
e. Training for innovative activities	£	<input type="text"/>	,	<input type="text"/>	,	<input type="text"/>	<input type="text"/>	<input type="text"/>	1450
f. All forms of design activity	£	<input type="text"/>	,	<input type="text"/>	,	<input type="text"/>	<input type="text"/>	<input type="text"/>	1460
g. Market introduction of innovations	£	<input type="text"/>	,	<input type="text"/>	,	<input type="text"/>	<input type="text"/>	<input type="text"/>	1470

Product (goods and services) innovation

This section asks for information relating to **goods and services**.

A product innovation is a new or improved good or service that differs significantly from the firm's previous goods or services and has been introduced on the market.

Include: changes to the design of a good, digital goods or services.

Exclude: the simple re-sale of new goods and changes of a solely aesthetic nature.

4. During the 3 year period 2020 to 2022, did this business introduce:

a. new or improved goods?

Include: all new or improved goods (for example, improvement in quality or distinct user benefits) goods innovations are new to the business, even if they are not new to the market, all product innovations, regardless of their origin

Exclude: the simple resale of goods purchased from other businesses and changes of a solely aesthetic nature

Please all that apply

Yes	No	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0510

b. new or improved services?

Include: all new or improved services (for example, improvement in quality or distinct user benefits) and all services innovations, regardless of their origin

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0520
-------------------------------------	-------------------------------------	------



If **No** to both options above, please go to question 8



For each category please one box only

5. **Who developed these product innovations?**

- a. Your business by itself? 0601
- b. Your business together with other businesses or organisations? 0602
- c. Your business by adapting or modifying processes originally developed by other businesses or organisations 0603
- d. Other businesses or organisations? 0604

6. **During the 3 year period 2020 to 2022 were any of your products (goods and services) innovations:**

For each category please one box only

- | | Yes | No | |
|---|-------------------------------------|-------------------------------------|------|
| a. Not previously offered by any of your competitors? | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 0710 |
| b. Identical or very similar to products already offered by your competitors? | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 0720 |

7. **What was the estimated percentage of your business's total turnover in 2022 from products (goods and services) for each of the following definitions?**

Informed estimates are acceptable, and percentages must equal 100%. Include turnover for goods and services introduced during the calendar year 2022 only. 100% in the 'Unchanged or only marginally modified' answer field if your business did not introduce any new or improved goods or services.

- a. Products (goods and services) introduced during the three years 2020 to 2022 that were **not previously offered by any of your competitors** % 0810
- b. Products (goods and services) that were **identical or very similar to products already offered by your competitors** % 0820
- c. Products (goods and services) that were **unchanged or only marginally modified during** the three years 2020 to 2022 (include the resale of new products purchased from other businesses) % 0840
- Total turnover 2022** %



Constraints on innovation

This section asks for information about constraints on innovation in your business. You will be asked to provide information on status of innovation activities and the importance of different factors that may be constraining innovation.

8. During the 3 year period 2020 to 2022 did this business have any innovations activities that were abandoned or ongoing?

Please all that apply

- | | | |
|--|-------------------------------------|------|
| a. innovation activities were abandoned? | <input checked="" type="checkbox"/> | 1510 |
| b. innovation activities were still ongoing at the end of 2022? | <input checked="" type="checkbox"/> | 1520 |
| c. No, there were no innovation activities that were abandoned or ongoing at the end of 2022 | <input checked="" type="checkbox"/> | 1540 |

9. During the 3 year period 2020 to 2022 how important were following factors in constraining innovation activities?

Please one box for each category

- | | High
Importance | Medium
Importance | Low
Importance | Not
Important | |
|---|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|------|
| a. Excessive perceived economic risks
This refers to the possibility that economic conditions such as exchange rates, government regulation or political stability will affect a business's activities | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 2657 |
| b. Direct innovation costs too high | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 2658 |
| c. Cost of finance | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 2659 |
| d. Availability of finance | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 2660 |
| e. Lack of qualified personnel | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 2661 |
| f. Lack of information on technology | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 2662 |
| g. Lack of information on markets | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 2663 |
| h. Effect of a market dominated by established businesses | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 2664 |
| i. Perceived uncertain demand for innovative goods or services | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 2665 |
| j. UK government regulations
Regulations include laws, orders and rules issued by all levels of government and organisations with delegated regulatory powers | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 2666 |
| k. EU regulations | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 2667 |
| l. Withdrawal of United Kingdom from the European Union | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 2678 |
| m. Issues related to the coronavirus (COVID-19) pandemic | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 2680 |
| n. Technical, Industry or service standards
A 'standard' is a technical document, established by consensus and approved by a recognised body, that provides, for common and repeated use, rules, guidelines or characteristics for activities or their results | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 2681 |
| o. Recent increases in energy prices | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 2682 |





If you did not engage in any innovation activities in Sections A or B (questions 1-9), please go to question 13

Section C - Factors affecting innovation

This section asks for information about factors affecting innovation. You will be asked to provide information about how important various factors were in your decision to innovate goods, services and/or processes.

Please one box for each category

10. During the 3 year period 2020 to 2022, how important were each of the following factors in your decision to innovate?	High Importance	Medium Importance	Low Importance	Not Important	
a. Increasing range of goods or services	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1210
b. Entering new markets	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1211
c. Increasing market share	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1220
d. Improving quality of goods or services	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1230
e. Improving flexibility for producing goods or services	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1240
f. Improving capacity for producing goods or services	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1250
g. Increasing value added This refers to increasing the difference between the price of a product or service and the cost of producing it . . .	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1290
h. Reducing costs per unit produced or provided	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1260
i. Improving health and safety	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1270
j. Reducing environmental impacts	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1212
k. Replacing outdated products or processes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1213
l. Meeting regulatory requirements These might include company, environmental and employment laws amongst others, as well as regulations specific to your sector.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1280
m. Meeting technical, industry or service standards	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1282
n. Issues arising from the coronavirus (COVID-19) pandemic	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1281
o. Recent increases in energy prices	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1283



Information on innovation

This section asks for information needed for innovation. You will be asked to provide information about the importance of various information sources to your business's innovation activities

Please one box for each category

11. During the 3 year period 2020 to 2022 how important to this business's innovation activities was information from:

	High Importance	Medium Importance	Low Importance	Not Important	
a. Within your business or enterprise group? Enterprise group refers to a group of legal units under common ownership	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1601
b. Suppliers of equipment, materials, services or software?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1620
c. Clients or customers from the private sector? The private sector refers to the part of the economy that is for profit and is owned by private organisations or individuals (for example small and medium sized businesses, housing associations, multinationals, partnerships and sole traders and households)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1631
d. Clients or customers from the public sector? The public sector includes government owned organisations such as local, regional and national administrations and agencies, schools, hospitals and government providers of services such as security, transport, housing and energy etc	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1632
e. Competitors or other businesses in your industry?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1640
f. Consultants, commercial laboratories or private Research and Development institutes?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1650
g. Universities or other higher education institutes?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1660
h. Government or public research institutes? Public research refers to research institutes that are either owned or controlled by the government or rely largely on government block funding for research activities	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1670
i. Conferences, trade fairs or exhibitions?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1680
j. Professional and industry associations?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1610
k. Technical, industry or service standards?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1611
l. Scientific journals and trade / technical publications?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1690
m. Social web-based networks or crowd-sourcing	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1691
n. Regulators and/ or regulations	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1692



Co-operation on innovation and R&D

This section asks for information about co-operation on innovation and R&D activities.

12.1 During the three years 2020 to 2022, what did your business co-operate with other businesses or organisations on?

For each category please one box only

- a. Research & Development 2101
- b. Other innovation activities (excluding R&D) 2102
- c. Any other business activities 2103
- d. We did not co-operate with other businesses 2104



If you did co-operate with other businesses or organisations in questions 12.1, please go to question 12.2 otherwise go to question 13



12.2. During the 3 year period 2020 to 2022, if your business co-operated on any innovation activities with any of the following, what was their location?

The Member States of the **European Union (EU)** are: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Italy, Ireland, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal, Romania, Slovenia, Slovakia, Spain and Sweden. **Member states of European Free Trade Association (EFTA)** are: Iceland, Liechtenstein, Norway, Switzerland.

Please all that apply

	UK	EU/EFTA countries	All other countries	No co-operation
a. other businesses within your enterprise group?	<input checked="" type="checkbox"/> 1812	<input checked="" type="checkbox"/> 1813	<input checked="" type="checkbox"/> 1814	<input checked="" type="checkbox"/> 1811
b. suppliers of equipment, materials, services or software?	<input checked="" type="checkbox"/> 1822	<input checked="" type="checkbox"/> 1823	<input checked="" type="checkbox"/> 1824	<input checked="" type="checkbox"/> 1821
c. clients or customers from the private sector? The private sector refers to the part of the economy that is for profit and is owned by private organisations or individuals (for example small and medium sized businesses, housing associations, multinationals, partnerships and sole traders and households)	<input checked="" type="checkbox"/> 1882	<input checked="" type="checkbox"/> 1883	<input checked="" type="checkbox"/> 1884	<input checked="" type="checkbox"/> 1881
d. clients or customers from the public sector? The public sector includes government owned organisations such as local, regional and national administrations and agencies, schools, hospitals and government providers of services such as security, transport, housing and energy etc	<input checked="" type="checkbox"/> 1892	<input checked="" type="checkbox"/> 1893	<input checked="" type="checkbox"/> 1894	<input checked="" type="checkbox"/> 1891
e. competitors or other businesses in your industry?	<input checked="" type="checkbox"/> 1842	<input checked="" type="checkbox"/> 1843	<input checked="" type="checkbox"/> 1844	<input checked="" type="checkbox"/> 1841
f. consultants, commercial labs or private research and development institutes?	<input checked="" type="checkbox"/> 1852	<input checked="" type="checkbox"/> 1853	<input checked="" type="checkbox"/> 1854	<input checked="" type="checkbox"/> 1851
g. universities or other higher education institutions?	<input checked="" type="checkbox"/> 1862	<input checked="" type="checkbox"/> 1863	<input checked="" type="checkbox"/> 1864	<input checked="" type="checkbox"/> 1861
h. government or public research institutes? Public research institutes that are either owned or controlled by the government or rely largely on government block funding for research activities	<input checked="" type="checkbox"/> 1872	<input checked="" type="checkbox"/> 1873	<input checked="" type="checkbox"/> 1874	<input checked="" type="checkbox"/> 1871
i. other businesses outside your enterprise group?	<input checked="" type="checkbox"/> 1876	<input checked="" type="checkbox"/> 1877	<input checked="" type="checkbox"/> 1878	<input checked="" type="checkbox"/> 1875
j. non-profit organisations?	<input checked="" type="checkbox"/> 1880	<input checked="" type="checkbox"/> 1885	<input checked="" type="checkbox"/> 1886	<input checked="" type="checkbox"/> 1879
k. regulatory bodies A regulatory body is a public organization or government agency that is responsible for legally regulating aspects of business or citizen activity. Various regulatory bodies oversee different sectors of the economy and public life, for example to safeguard citizens' privacy, protect wildlife from pollution or uphold consumer rights	<input checked="" type="checkbox"/> 1895	<input checked="" type="checkbox"/> 1896	<input checked="" type="checkbox"/> 1897	<input checked="" type="checkbox"/> 1898
l. standard developing organisations Such as British Standards Institution (BSI), European Committee for Standardization (CEN) and International Organization for Standardization (ISO)	<input checked="" type="checkbox"/> 1901	<input checked="" type="checkbox"/> 1902	<input checked="" type="checkbox"/> 1903	<input checked="" type="checkbox"/> 1904



12.3 If 'selected any partner location' to question 12.2 g), thinking about the most recent time your business worked with universities or other higher education institutions, where was the main university / institution located?

For each category please one box only

- a. within 15 miles of one of the physical sites of your business and within the UK 2121
- b. further than 15 miles from the physical sites of your business and within the UK 2122
- c. outside of the UK (international universities or higher education institutions) 2123
- d. none of the above – your business worked with them remotely, with no face-to-face work 2124

12.4 If 'selected any partner location' to question 12.2 h), thinking about the most recent time your business worked with government or public research institutes, where was the main government / public research institute located?

For each category please one box only

- a. within 15 miles of one of the physical sites of your business and within the UK 2131
- b. further than 15 miles from the physical sites of your business and within the UK 2132
- c. outside of the UK (international government or public research institutes) 2133
- d. none of the above – your business worked with them remotely, with no face-to-face work 2134

12.5 If 'selected UK option' to question 12.2 h), during the 3 year period 2020 to 2022 was this co-operation carried out via a public procurement process?"

Public procurement is via an open, fair and competitive process whereby a public body buys supplies, services or works.

- Yes
- No 2140

13. During the 3 year period 2020 to 2022 if this business had no innovation activity, please indicate why it has not been necessary or possible to innovate?

Please all that apply

- a. No need due to previous innovations 2011
- b. No need due to market conditions 2020
- c. The UK does not have a business environment which encourages companies to innovate 2030
- d. Lack of qualified personnel 2031
- e. Availability / Costs of finance 2032
- f. Issues arising from the coronavirus (COVID-19) pandemic 2033



Innovation protection

This section asks for information about protection your innovations, for example trademarks or patents.

14. What proportion of your innovations during 2020 to 2022 were protected by the following methods?

Please one box for each method

	Over 90%	40-90%	Less than 40%	None	
a. Patents This refers to a type of applied for intellectual property that protects inventions and products, for example machines and machine parts, tools, medicines, giving the patent owner exclusive rights for use	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	2650
b. Design registration This refers to a type of applied for intellectual property that protects the appearance of a product including, shape, packaging, patterns, colours, decoration, giving patent owner exclusive rights for use	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	2651
c. Copyright This refers to a type of automatic intellectual property that protects writing and literary works, art, photography, films, TV, music, web content, sound recordings, giving the owner exclusive rights for use	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	2652
d. Trademarks This refers to a type of applied for intellectual property that protects product names, logos, jingles, giving the patent owner exclusive rights for use	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	2653
e. Lead time advantages This refers to the time between initiating and completing any business process. For example time it takes to manufacture an item, the time it takes to make a purchased item available in inventory after it is received	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	2654
f. Complexity of goods or services	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	2655
g. Secrecy include non-disclosure agreements	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	2656



Public financial support for innovation activities

This section asks for information about **public financial support for innovation** received from government, specifying the type, if any, of public financial support your business received and the source, for example, research and development tax credits received from UK central government.

15.1. During the three years 2020 to 2022 from which of the following levels of government did this business receive public financial support (if any) for innovation activities?

Include:

- Financial support via tax credits or deductions, grants, subsidised loans and loan guarantees

Exclude:

- Research and Development and other innovation activities conducted entirely for the public sector under contract.

Please all that apply

- a. **UK local or regional authorities** 2668
- b. **UK central government**
Include: UK government's agencies or funding bodies
(eg Innovate UK, formerly known as TSB) 2669
- c. **European Union (EU) institutions or programmes**
Include: EU Horizon 2020 - Programme for Research and Innovation 2670
- d. **No public financial support was received for innovation activities from government** 2671

15.2. If 'UK central government' was selected at question 15.1, what kind of financial support did this business receive?

Please all that apply

- a. **Direct financial support**
For example: Smart or Collaborative research and development grants, work with Catapult centres, Innovation vouchers 2672
- b. **Indirect financial support - Research and Development tax credits** 2673
- c. **Indirect financial support - Patent box, coronavirus (COVID-19) pandemic support** 2679
- d. **Not sure** 2674



Section D - Exports and skills

This section asks for information relating to exports and persons employed by your business. You will be asked to provide estimates for an estimate of the proportion of your workforce who hold a degree or higher qualification and information regarding the skills possessed by employees, for example, mathematics or statistics.

16. Did your business have any exports for the calendar year 2022?

- Yes
- No 2450

17. What was the proportion of employees who held a degree or higher qualification in the following areas for the calendar year 2022?

For example: BA / BSc, MA / PhD, PGCE.

You can provide an estimate if you are not sure

- a. science or engineering subjects % 2610
- b. other subjects % 2620

18. During the 3 year period 2020 to 2022, did your business employ individuals in-house with the following skills at any level, or obtain these skills from external sources?

Please all that apply

- a. Graphic arts, layout, advertising? 2631
- b. Design of objects or services? 2632
- c. Multimedia, web design
For example audio, graphics, text, still pictures, animation or video 2633
- d. Software development, database management? 2634
- e. Engineering, applied sciences? 2635
- f. Mathematics, statistics? 2636
- g. Data scientists? 2637



19. Which of the following management technologies did your business use, in the calendar year 2022?

Please all that apply

- a. Accountancy software 2201
- b. Customer relationship management (CRM)
(Refers to technology used to manage interactions with customers and potential customers.) 2202
- c. Electronic invoicing (e-invoicing) 2203
- d. Enterprise resource planning (ERP) software
(Refers to a software package used to manage day-to-day business activities such as
accounting, procurement, project management, risk management and compliance, and supply
chain operations.) 2204
- e. HR management software 2205
- f. Videoconferencing software 2206

20. Which of the following production-enhancing technologies did your business use, in the calendar year 2022?

Please all that apply

- a. Artificial intelligence (AI), robotics or automation 2211
- b. Business intelligence / business analytics 2212
- c. Cloud based computing 2213
- d. Computer aided design (CAD) software
(Refers to software used to produce two-dimensional (2D) drawings or three-dimensional (3D). models) 2214
- e. Internet of things (IoT)
(Refers to the network of physical objects—"things"—that are embedded with sensors, software, and
other technologies for the purpose of connecting and exchanging data with other devices and
systems over the internet.) 2215
- f. Virtual reality (VR) and augmented reality (AR) 2216



Section E – Environmental Innovations

This section asks about innovations with environmental benefits.

An innovation with environmental benefits is a new or improved product or process of an enterprise that generates lower environmental impacts, compared to the business's previous products or processes, and that has been made available to potential users or brought into use. The environmental benefit can be the primary objective of the innovation or a by-product of other objectives.

The environmental benefits of an innovation can occur during the production of a good or service, or during its consumption or use by the end user of a product. The end user can be an individual, another business, the government, and so on.

21.1 During the 3 year period 2020 to 2022, did your business introduce innovations with any of the following environmental benefits, and, if yes, was their contribution to environmental protection rather significant or insignificant?

Environmental benefits obtained within your business

Exclude benefits to end users

Please all that apply

	Yes significant	Yes but not significant	No
a. reduced material or water use per unit of output	<input checked="" type="checkbox"/> 2220	<input checked="" type="checkbox"/> 2221	<input checked="" type="checkbox"/>
b. reduced energy usage or CO2 footprint (i.e. reduced total CO2 emissions)	<input checked="" type="checkbox"/> 2222	<input checked="" type="checkbox"/> 2223	<input checked="" type="checkbox"/>
c. reduced soil, noise, water or air pollution	<input checked="" type="checkbox"/> 2224	<input checked="" type="checkbox"/> 2225	<input checked="" type="checkbox"/>
d. replaced a share of materials with less polluting or hazardous substitutes	<input checked="" type="checkbox"/> 2226	<input checked="" type="checkbox"/> 2227	<input checked="" type="checkbox"/>
e. replaced a share of fossil energy with renewable energy sources	<input checked="" type="checkbox"/> 2228	<input checked="" type="checkbox"/> 2229	<input checked="" type="checkbox"/>
f. recycled waste, water or materials for own use or sale	<input checked="" type="checkbox"/> 2230	<input checked="" type="checkbox"/> 2231	<input checked="" type="checkbox"/>

21.2 Environmental benefits obtained during the consumption or use of a good or service by the end user

An end user is an individual, another business, the government

Please all that apply

	Yes significant	Yes but not significant	No
a. reduced energy use or CO2 footprint	<input checked="" type="checkbox"/> 2232	<input checked="" type="checkbox"/> 2233	<input checked="" type="checkbox"/>
b. reduced air, water, soil or noise pollution	<input checked="" type="checkbox"/> 2234	<input checked="" type="checkbox"/> 2235	<input checked="" type="checkbox"/>
c. facilitated recycling of product after use	<input checked="" type="checkbox"/> 2236	<input checked="" type="checkbox"/> 2237	<input checked="" type="checkbox"/>
d. extended product life through longer-lasting, more durable products	<input checked="" type="checkbox"/> 2238	<input checked="" type="checkbox"/> 2239	<input checked="" type="checkbox"/>



