

UK Innovation Survey

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TO BE COMPLETED FOR:

FROM:

Office for National Statistics
A Government Executive Agency
NEWPORT
NP10 8XG

YOUR CONTACT FOR HELP AND QUERIES:

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Informed estimates are acceptable if exact figures are not available.

Notes are enclosed to help you complete your return or you may telephone your contact named above.

IMPORTANT:

- This survey collects information about levels and characteristics of the innovation activity of UK enterprises during the three year period 1998-2000. In order to be able to compare firms with and without innovation activities, we request all firms to respond to all questions, unless otherwise instructed.
- It is **illegal** for us to reveal your data or identify your business to unauthorised persons.
- This is a voluntary inquiry which helps to meet the UK's international obligations particularly to the European Union.

FOR YOUR INFORMATION:

- The numbers of businesses and questions are kept to the minimum required to produce reliable results.
- This inquiry will benefit businesses by allowing government to more effectively target its science and technology policies.
- Copies of our code "Maintaining the Confidentiality of Data" are available on request.
- If you wish to use our Minicom service (for the Deaf), please telephone 01633 812399. 

THANK YOU FOR YOUR CO-OPERATION

SELECTED EXAMPLES OF INNOVATIONS

The following are derived from real examples from previous surveys and include new-to-market introductions together with products and processes new to the business although already in the use in the market or industry.

PRODUCT INNOVATIONS

Goods

Fibre optic based display lighting range
Automation of electronic testing equipment
Lighter weighting of vehicle bodies
Multi-function printer/scanner
Carbon fibre based sports equipment

Services

IT based Credit Risk assessment service
On line estate agency
Geographical Information System software
A new computer mapping system, used by drivers to work out the faster delivery route

PROCESS INNOVATIONS

Linking of Computer Aided Design station to parts suppliers
Introduction of Electronic Point of Sale equipment in Garden Centre
Digitising of pre-press in printing house
Robotised welding

EXAMPLES WHICH ARE NOT TECHNOLOGICAL INNOVATION

The renaming and repackaging of an existing soft drink popular with older people, to establish a link with a football team in order to reach the youth market, is not a technology based innovation as defined in this survey, but could register as a marketing change in question 17.

New models of complex products, such as cars or television sets, are not product innovation, if the changes are minor compared with the previous models, for example offering a radio in a car.

DEFINITION OF AN ENTERPRISE

An *enterprise* is defined as the smallest combination of legal units that is an organisational unit producing goods or services, which benefits from a certain autonomy in decision making, especially for the allocation of its current resources. An enterprise carries out one or more activities at one or more locations. An enterprise may be a sole legal unit.

3.5 Is your enterprise's largest market? (please tick one)

Local ²	MARKET	<input type="checkbox"/> 1
Regional ³		<input type="checkbox"/> 2
National		<input type="checkbox"/> 3
International		<input type="checkbox"/> 4

4. Product innovation (goods and services)

For this survey product innovation covers both goods and services introduced to the market which are either new or significantly improved with respect to fundamental characteristics. The innovation should be based on the results of new technological developments, new combinations of existing technology or utilisation of other knowledge by your firm. For examples of product innovations see inside front cover.

We are interested in products **new to your enterprise** - even if already on the market - as well as those that are new to your market.

4.1 During the three year period 1998-2000, did your enterprise introduce any technologically new or significantly improved products (goods or services) which were new to your firm?

No ☐ 0 → Go to question 5. PRODINOV

Yes ☐ 1

4.2 How were these products developed? (please tick one)

PRODWHO

Mainly by your enterprise or enterprise group	<input type="checkbox"/> 1
Mainly by your enterprise in co-operation with other enterprises or institutions	<input type="checkbox"/> 2
Mainly by other enterprises or institutions	<input type="checkbox"/> 3

4.3 Please estimate how your turnover in 2000 was distributed between products (goods or services) introduced during the period 1998-2000 which were:

New to your firm	PRODNEW	<input type="text"/> <input type="text"/> <input type="text"/> %
Significantly improved	PRODIMP	<input type="text"/> <input type="text"/> <input type="text"/> %
Unchanged or only marginally modified	PRODUNC	<input type="text"/> <input type="text"/> <input type="text"/> %
Total turnover in 2000		<input type="text"/> 1 <input type="text"/> 0 <input type="text"/> 0 %

4.4 During the three year period 1998-2000, did your enterprise introduce any new or significantly improved products (goods or services) which were also new to your enterprise's market?

No <input type="checkbox"/> 0	PRODNOV	SHARENOV
Yes <input type="checkbox"/> 1 →	Please estimate the share of turnover of these products in 2000	<input type="text"/> <input type="text"/> <input type="text"/> %

²Situated within approximately 50 miles of your enterprise

³Situated within approximately 100 miles of your enterprise

4.5 Please give a short description of your most important product innovation:

PRODTXT

5. Process Innovation

For this survey process innovation is the use of new or significantly improved technology for production or the supply of goods and services. Purely organisational or managerial changes should not be included. For example of process innovations see inside front cover.

We are interested in processes **new to your enterprise** - even if already in use in your industry - as well as those that are new to your industry.

5.1 During the three year period 1998-2000, did your enterprise introduce any new or significantly improved processes for producing or supplying products (goods or services) which were new to your firm?

No

☐

Go to question 6.

PROCINOV

Yes

☐

5.2 How were these processes developed? *(please tick one)*

PROCWHO

Mainly by your enterprise or enterprise group

☐

Mainly by your enterprise in co-operation with other enterprises or institutions

☐

Mainly by other enterprises or institutions

☐

5.3 During the three year period 1998-2000, did your enterprise introduce any new or significantly improved processes for producing or supplying products (goods or services) which were new to your industry?

No

☐

PROCNOV

Yes

☐

5.4 Please give a short description of your most important process innovation:

PROCTXT

6. Innovation activities not completed or abandoned

6.1 During the period 1998-2000, did your enterprise have any projects to develop or introduce new or significantly improved products (goods or services) or processes that were:

(please tick all that apply)

Abandoned	ABAND	<input type="checkbox"/>
Not yet completed but on time	NYETTIME	<input type="checkbox"/>
Not yet completed but seriously delayed	NYETLATE	<input type="checkbox"/>
Not even started	NOTEVEN	<input type="checkbox"/>

7. Longer term innovation activities

7.1 During the period 1998-2000, did your enterprise have any other innovation activities to develop or implement technological change not directly aimed at imminent new products or processes eg. basic R&D, technology watch?

No ☐ 0 LONGTERM

Yes ☐ 1

8. Factors hampering innovation

8.1 A range of factors may inhibit your ability to innovate. Please grade the importance of the following constraints during the period 1998-2000: (please tick one box in each row)

			Importance			
			No effect	Low	Medium	High
Economic factors	Excessive perceived economic risks	HPECRISK	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
	Direct innovation costs too high	HPINCOST	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Cost of finance	HPCSTFNC	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Availability of finance	HPAVFNC	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Internal factors	Organisational rigidities within the enterprise	HPORGRIG	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Lack of qualified personnel	HPLKPERS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Lack of information on technology	HPLKTECH	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Lack of information on markets	HPLKMKMT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other factors	Impact of regulations or standards	HPREGS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Lack of customer responsiveness to new goods or services	HPLKCUST	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

9. Innovation-related expenditure in 2000

9.1 Did your enterprise engage in the following innovation activities in 2000?

(please tick all that apply and estimate expenditures where appropriate)

	Please tick if expenditure in the category	Please estimate innovative expenditure in 2000, incl. personnel and related investment expenditures (no depreciation)
Intramural research & experimental development (R&D)	<input type="checkbox"/>	£ <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> ,000
	XINTER	XINTERM
Acquisition of external R&D	<input type="checkbox"/>	£ <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> ,000
	XEXTRA	XEXTRAM
Acquisition of machinery and equipment (including computer hardware) in connection with product or process innovation.	<input type="checkbox"/>	£ <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> ,000
	XMACH	XMACHM
Acquisition of other external knowledge such as licences to use intellectual property (eg. patents, know-how) or specialised services (eg. consultants, Universities).	<input type="checkbox"/>	£ <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> ,000
	XKNOW	XKNOWM
All design functions , including industrial, product, process and service design and specifications for production or delivery.	<input type="checkbox"/>	£ <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> ,000
	XDESIGN	XDESIGNM
Internal or external training for your personnel directly related to innovation activity.	<input type="checkbox"/>	£ <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> ,000
	XTRAIN	XTRAINM
Internal or external marketing activities aimed at the introduction of your enterprise's innovations. Include market research and advertising of new innovations but exclude routine marketing activity.	<input type="checkbox"/>	£ <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> ,000
	XMARKET	XMARKETM
Total expenditure		£ <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> ,000
		XTOTALM

10. Internal research and development (R&D)

If you have internal R&D-activities:

10.1 How many persons were involved in R&D activities within your enterprise in 2000?

(in full time equivalents)

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RDPERS

10.2 How did your enterprise engage in R&D during the three year period 1998-2000?

Continuously

☐

RDCONT

Occasionally

☐

RDOCCAS

11. Effects of innovation

11.1 Please indicate the impact that your innovation activities have had on your enterprise in the period 1998-2000. (please tick one box in each row)

		Degree of impact				
		None	Low	Medium	High	
Product oriented effects	Increased range of goods or services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	FRANGE
	Opened new market or increased market share	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	FMKTSHRE
	Improved quality of goods or services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	FQUALITY
Process oriented effects	Improved production flexibility	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	FFLEXIB
	Reduced unit labour costs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	FLABOUR
	Increased capacity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	FCAPAC
	Reduced materials and/or energy per produced unit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	FMATERL
Other effects	Improved environmental impact or health and safety aspects	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	FENVIRON
	Met regulations or standards	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	FREGS

12. Sources of information for innovation activities

12.1 Please indicate the sources of knowledge or information used in your technological innovation activities, and their importance during the period 1998-2000. (please tick one box in each row)

			Degree of importance			
			Not used	Low	Medium	High
Internal	Within the enterprise	IFWITHIN	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Other enterprises within the enterprise group	IFOTHENT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Market	Suppliers of equipment, materials, components or software	IFSUPPL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Clients or customers	IFCLIENT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Competitors	IFCOMPET	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Consultants	IFCONSLT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Commercial laboratories/ R&D enterprises	IFRDLABS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Institutional	Universities or other higher education institutes	IFUNIV	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Government research organisations	IFGOVT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Other public sector eg. business links, Government Offices	IFOTHPUB	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Private research institutes	IFPRI	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other	Professional conferences, meetings	IFCONF	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Trade associations	IFTRADE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Technical/trade press, computer databases	IFTECH	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Fairs, exhibitions	IFFAIRS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Specialised	Technical standards	IFSTAND	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Health and safety standards and regulations	IFHEALTH	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Environmental standards and regulations	IFENVIRO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

13. Innovation co-operation

Innovation co-operation means active participation in joint innovation projects (including R&D) with other organisations. It does not necessarily imply that either partner derives immediate commercial benefit from the venture. Pure contracting out of work, where there is no active collaboration, is not defined as co-operation in this survey.

13.1 Did your enterprise have any co-operation arrangements on innovation activities with other enterprises or institutions in 1998-2000?

No ☐ 0 → Go to question 14. PCOOP

Yes ☐ 1

13.2 Please indicate the type of organisation and location (please tick all that apply)

			UK		Overseas		
			Local ⁴	National	Europe	US	Other
Internal	Type of partner						
	Other enterprises within your enterprise group	POTHENT	<input type="checkbox"/> L	<input type="checkbox"/> N	<input type="checkbox"/> E	<input type="checkbox"/> U	<input type="checkbox"/> O
Market		PSUPPL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Suppliers of equipment, materials, components or software						
	Clients or customers	PCLIENT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Competitors	PCOMPET	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Consultants	PCONSLT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Institutional	Commercial laboratories/R&D enterprises	PRDENT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Universities or other higher education institutes	PUNIV	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Government research organisations	PGOVT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Specialised	Private research institutes	PPRI	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

14. Public support for innovation

14.1 Did your enterprise receive any public support (financial or other assistance and advice) for innovation-related activities in the period 1998-2000?

No ☐ 0 → Go to question 14.3 SUPPORT

Yes ☐ 1

14.2 What were the sources of this public support for innovation-related activities in the period 1998-2000? (please tick all that apply)

		Financial support	Other participation
Local or regional government	SPLOCAL	<input type="checkbox"/> F	<input type="checkbox"/> O
Central government (including institutions working on behalf of central government)	SPCENT	<input type="checkbox"/>	<input type="checkbox"/>
The European Union	SPEURO	<input type="checkbox"/>	<input type="checkbox"/>

⁴Situated within approximately 50 miles of your enterprise.

14.3 Has your enterprise participated in or received assistance from any of the following types of innovation-related public programmes in the period 1998-2000? (please tick all that apply)

Technology Development (eg. LINK, SMART)	<input type="checkbox"/>	SPDEVELP
Technology Acquisition (eg. Teaching Company Scheme, Demonstration Projects)	<input type="checkbox"/>	SPACQUIS
Management Information Programmes (eg. Industry CLUBs)	<input type="checkbox"/>	SPMNGT
European programmes (eg. Framework, Eureka)	<input type="checkbox"/>	SPEUROP

15. Patents and other protection methods

This question asks about methods of protecting innovations developed by your enterprise. We are interested in which methods you have used in the period 1998-2000 - these may have been used to protect recent innovations or still used to protect those developed previously.

15.1 How many patents, if any, did your enterprise apply for during the period 1998 to 2000? (if none, please enter NIL)

PATAPPLY

15.2 During the period 1998-2000, please indicate the importance to your enterprise of the following methods to protect innovations? (please tick one box in each row)

			Degree of importance			
			Not used	Low	Medium	High
Formal	Registration of design	PRREG	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Trademarks	PRTRADE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Patents	PRPATENT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Confidentiality agreements	PRCONF	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Copyright	PRCOPY	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Strategic	Secrecy	PRSECRCY	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Complexity of design	PRCOMPLX	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Lead-time advantage on competitors	PRLEADTM	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

16. Enterprises with no innovative activity

16.1 If your enterprise had no technological innovation activity in the period 1998-2000, please indicate why it has not been necessary or possible or desirable to innovate.

(please tick all that apply)

- | | | |
|----------------------------------|--------------------------|----------|
| No need due to prior innovations | <input type="checkbox"/> | NOPRIOR |
| No need due to market conditions | <input type="checkbox"/> | NOMKT |
| Factors impeding innovation | <input type="checkbox"/> | NOIMPEDE |

17. Wider innovation

In this section we seek to broaden the survey to cover changes in the enterprise aimed at gaining competitive advantage, but not necessarily involving technology.

17.1 Did your enterprise make major changes in the following areas of business structure and practices during the period 1998-2000 and how far did business performance improve as a result?

(please tick one box in each row)

		Impact on performance			
		Not used	Low	Medium	High
Implementation of new or significantly changed corporate strategies eg. mission statement, market share.	ORGSTRAT	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
Implementation of advanced management techniques within your firm eg. knowledge management, quality circles.	ORGMNGT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Implementation of new or significantly changed organisational structures eg. Investors in People, diversification.	ORGORGAN	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Changing significantly your firms marketing concepts/ strategies eg. marketing methods.	ORGMKT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

17.2 Can you indicate the extent of your enterprise's use of e-business activities over the period 1998-2000. (please tick all that apply)

- | | | |
|--|--------------------------|----------|
| Basic internet presence | <input type="checkbox"/> | EBBASIC |
| Internet used for information | <input type="checkbox"/> | EBINFO |
| Customers can place orders through the internet site | <input type="checkbox"/> | EBORDER |
| Commerce with other businesses through the internet site | <input type="checkbox"/> | EBCOMRCE |

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Date.....

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