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Statistics Bulletin

UK Innovation Survey 2007: Northern Ireland Results

30 June 2008

Northern Ireland Statistics & Research agency

Department of Enterprise,
Trade and Investment

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UK INNOVATION SURVEY 2007: NORTHERN IRELAND RESULTS

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The UK Innovation Survey provides a wide range of information related to innovation activity among enterprises, and includes information on the extent of innovation activity, the impact of innovation on businesses and the barriers to innovation. Headline figures for the Northern Ireland (NI) data show that:

- During 2004-06, 57 per cent of NI enterprises were innovation active, compared to 56 per cent during 2002-04. The equivalent UK figure was 64 per cent, rising from 57 per cent during 2002-04.
- The proportions of enterprises that were product innovators in NI (20 per cent) and the UK (22 per cent) were similar during 2004-06, as were the proportions of process innovators (NI: 11 per cent; UK: 12 per cent).
- A larger proportion of enterprises in the production and construction sector (63 per cent) were innovation active compared to those in the distribution and services sector (55 per cent). This gap has, however, narrowed since 2002-04 (63 per cent compared to 52 per cent).
- Cost factors continued to be most commonly regarded as significant barriers to innovation among NI and UK enterprises, though to a lesser extent than during 2002-04.
- Comparisons between the 2001, 2005 and 2007 surveys are limited by differences in methodology and the type of business sectors covered. However, when similar sectors are compared, the proportions of firms in NI engaged in innovation activity during 2004-06 (64 per cent) and 2002-04 (63 per cent) were noticeably higher than in 1998-00 (46 per cent).
- Results from NI enterprises responding to both the 2005 and 2007 surveys show that during 2004-06, 63 per cent of this like-for-like panel were innovation active, representing a 6 percentage points increase compared to 2002-04. The equivalent UK increase was 5 percentage points (to 65 per cent during 2004-06).

Northern Ireland Statistics & Research agency

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INTRODUCTION
This report presents emerging results from the Northern Ireland element of the UK Innovation Survey 2007, covering the three-year period from 2004 to 2006. The UK-level results can be found on the Department for Innovation, Universities and Skills (DIUS) website[i]. This is part of a wider European Community Innovation Survey (CIS) and is the fifth such survey, with the previous survey being undertaken in 2005[ii]. EU-wide results will be published once national results are available.

Business innovation is a vital ingredient in raising the productivity, competitiveness and growth potential of modern economies. It is a key objective for the Department of Enterprise, Trade and Investment (DETI) to encourage NI businesses to become more innovative and to engage with potential partners in Higher and Further Education and the wider public sector.

The Community Innovation Survey complements other indicators of innovation by providing a regular snapshot of innovation inputs and outputs and the constraints faced by NI businesses in their innovation efforts, across the range of industries and business enterprises. It has the additional benefit of providing the basis for some comparisons with other European countries.

The 2007 survey sampled enterprises with 10 or more employees in sections C to K plus SIC 92.1/2 of the Standard Industrial Classification (SIC) 2003[iii]. With 1,081 of the 2,017 enterprises selected responding, the survey had a response rate of nearly 54 per cent. In order to be representative, the responses have been weighted back to the sample population and this is reflected in the results shown throughout the publication.

INNOVATION ACTIVITY
Innovation takes place through a wide variety of business practices. The majority of the survey is concerned with innovation through new and improved products and processes and with the investments that develop and implement them. Table 1 shows the proportion of enterprises that actively innovate, broken down by the components that feed into the definition of innovation activity for this publication.

Fifty-seven per cent of NI businesses were innovation active during 2004-06, compared to 64 per cent in the UK. NI's innovation rate has therefore remained relatively unchanged compared to the 2005 survey (56 per cent). However the gap between NI and the UK (2005 survey: 57 per cent) has widened. This may also reflect changes in the structures of the respective business populations of interest.

The proportions of enterprises that were product innovators in NI (20 per cent) and the UK (22 per cent) were similar during 2004-06, as were the proportions of process innovators (NI: 11 per cent; UK: 12 per cent). However, the proportion of UK enterprises that had some innovation-related expenditure (62 per cent) was higher than in NI (56 per cent).

Large enterprises with 250 or more employees were more likely to engage in some sort of innovation activity, with 73 per cent innovation active, as opposed to 57 per cent of SMEs[iv]. This was also true at a UK level (74 per cent among large enterprises compared to 63 per cent among SMEs).

Innovation by industry type
The proportion of firms reported to be innovation active also varied considerably across industrial and commercial sectors, with 63 per cent of respondents in the production and construction sector (SIC 2003 sections C-F) being innovation active compared with 55 per cent of enterprises in the distribution and services sector (SIC 2003 sections G-K plus SIC 92.1/2). This represented a narrowing of the innovation gap between these sectors since 2002-04 (63 per cent compared to 52 per cent).

Innovation active enterprises: by type of activity, 2004 to 2006
Table 1

Percentage of all enterprises

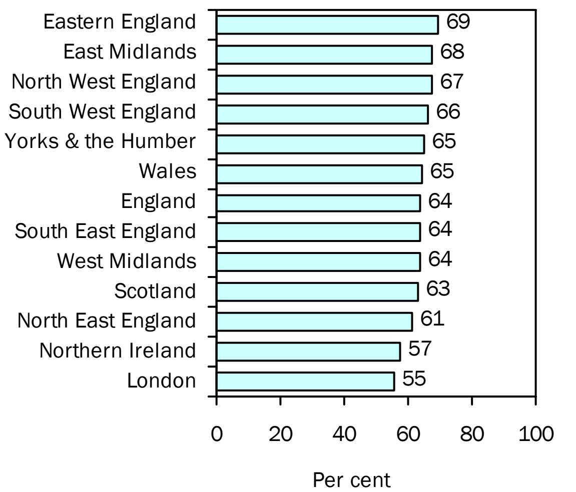
	SIZE OF ENTERPRISE					
	SMEs		Large		All	
	NI	UK	NI	UK	NI	UK
Innovation active	57	63	73	74	57	64
Product innovator	19	22	35	30	20	22
of which (share with new-to-market products)	25	34	62	46	27	34
Process innovator	11	11	26	22	11	12
of which (share with new-to-industry processes)	20	26	24	25	21	26
Abandoned activities	4	6	13	14	4	6
Ongoing activities	6	9	15	17	6	9
Innovation-related expenditure	56	62	67	73	56	62
Both product and process innovator	8	8	19	16	8	9
Either product or process innovator	22	25	42	36	22	25

Innovation by region

Figure 1 shows the rate of innovation activity for businesses across the countries and regions of the UK. Results for 2004-06 displayed a greater level of regional variation than did the 2005 Survey, ranging from 69 per cent in Eastern England to 55 per cent in London. NI had the second lowest rate of business innovation activity across the UK regions and countries.

Regional innovation patterns
Figure 1

Mean percentages



COMPARISONS WITH THE 2001 AND 2005 INNOVATION SURVEYS

Comparisons between the 2001, 2005 and 2007 surveys are limited by differences in methodology and the type of business sectors covered[v]. However, when similar sectors are compared, the proportions of firms in NI engaged in innovation activity during 2004-06 (64 per cent) and 2002-04 (63 per cent) were noticeably higher than in 1998-00 (46 per cent).

Analysis of the panel of enterprises responding to both the 2005 and 2007 UK Innovation Survey shows that (when examining a like-for-like group) the proportion of NI and UK enterprises that were innovation active during 2004-06 has increased by approximately 6 percentage points compared to 2002-04, to 63 per cent. The equivalent UK increase was 5 percentage points (to 65 per cent during 2004-06).

FACTORS IMPACTING ON INNOVATION

Cost factors were most commonly regarded as significant barriers to innovation among NI and UK enterprises, though to a lesser extent than during 2002-04. Indeed, 12 per cent of responding NI enterprises (UK: 11 per cent) cited 'Direct innovation costs too high' as being a highly important constraint on innovation.

NI enterprises not engaged in innovation activity were more likely to perceive a lack of knowledge and market-related factors as highly important barriers to innovation relative to innovation active enterprises. These results suggest that (compared to the 2005 survey) more businesses may be choosing not to attempt to innovate due to specific market- and knowledge-related barriers. Indeed, a larger proportion of NI enterprises with no innovation activity cited constraining factors as the reason for no activity during 2004-06 (27 per cent) compared to 2002-04 (20 per cent).

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[i] Please note that due to differences in reporting of item non-response, some UK results that are quoted in this bulletin will differ from those contained in the DIUS article.
[ii] The 2005 survey covers 2002-04, and the 2001 survey covers 1998-00.
[iii] See section 8 for more details.
[iv] SMEs are defined here as having 10-249 employees. They may be part of an enterprise group.
[v] See section 7 for more details.

Innovation activity

2

Innovation takes place through a wide variety of business practices, and a range of indicators can be used to measure its level within the enterprise or in the economy as a whole. These include the levels of effort employed (measured through resources allocated to innovation) and achievement (the introduction of new or improved products and/or processes). This section reports on the types and levels of innovation activity over the three-year period, 2004-2006.

We define innovation activity here as whether enterprises were engaged in any of the following:

- introduction of new or significantly improved products (goods and/or services) or processes;
- innovation projects not yet complete or abandoned; or
- expenditure in areas such as internal research and development, training, acquisition of external knowledge or machinery and equipment linked to innovation activities.

Innovation active enterprises: by type of activity, 2004 to 2006
Table 2

Percentage of all enterprises

	SIZE OF ENTERPRISE					
	SMEs		Large		All	
	NI	UK	NI	UK	NI	UK
Innovation active	**57**	**63**	**73**	**74**	**57**	**64**
Product innovator	19	22	35	30	20	22
of which (share with new-to-market products)	25	34	62	46	27	34
Process innovator	11	11	26	22	11	12
of which (share with new-to-industry processes)	20	26	24	25	21	26
Abandoned activities	4	6	13	14	4	6
Ongoing activities	6	9	15	17	6	9
Innovation-related expenditure	56	62	67	73	56	62
Both product and process innovator	8	8	19	16	8	9
Either product or process innovator	22	25	42	36	22	25

Table 2 above shows that overall, 57 per cent of NI enterprises were classed as being innovation active during this period compared to 64 per cent in the UK. NI's innovation rate has therefore remained relatively unchanged compared to the 2005 survey (56 per cent), however the gap between NI and the UK (2005 survey: 57 per cent) has widened. Large enterprises with 250 or more employees continued to be more likely to engage in some sort of innovation activity, with 73 (2005: 67) per cent innovation active, as opposed to 57 (2005: 56) per cent of SMEs. This was also true at a UK level, with 74 (2005: 72) per cent innovation active compare to 63 (2005: 57) per cent of SMEs.

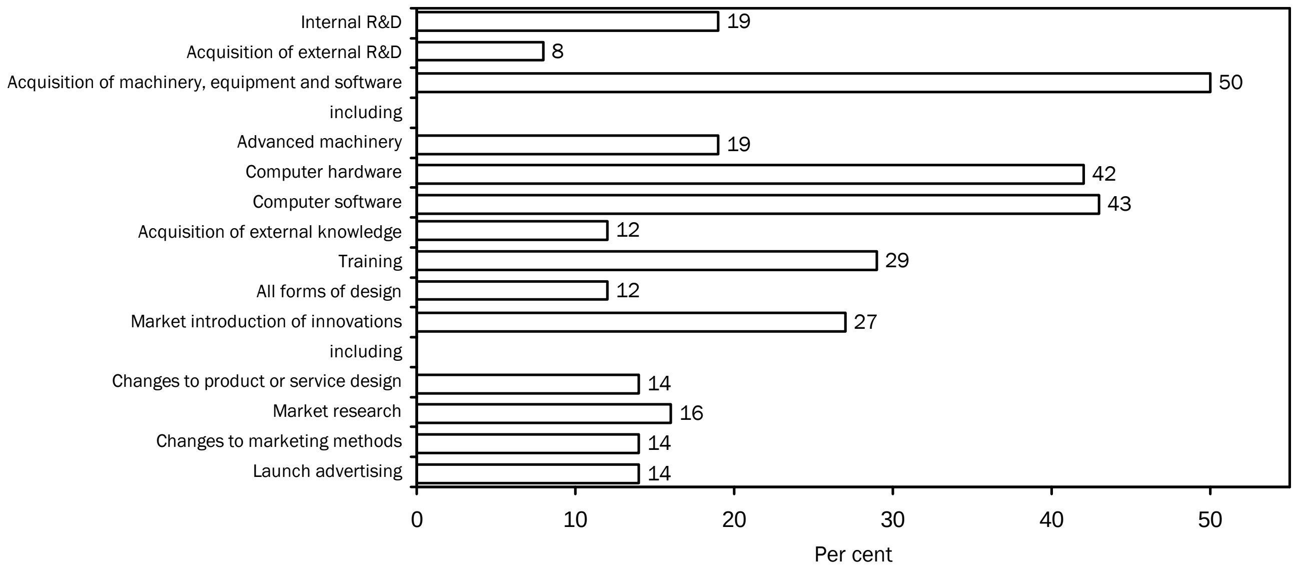
The proportions of enterprises that were product innovators in NI (20 per cent) and the UK (22 per cent) were similar during 2004-06, as were the proportions of process innovators (NI: 11 per cent; UK: 12 per cent).

Process innovation rates, however, were lower in both NI and the UK compared to the 2005 survey (by 8 and 4 percentage points respectively).

A new feature of the 2007 survey is the ability to distinguish between ongoing and abandoned innovation activities, previously combined into one question. Four per cent of NI enterprises (6 per cent at a UK level) had projects during the period to develop product or process innovations that had to be abandoned before the end of 2006, while 6 per cent of NI enterprises (UK: 9 per cent) had innovation projects that were ongoing at the end of 2006.

Fifty-six per cent of NI and 62 per cent of UK enterprises had some innovation-related expenditure during 2004-06, showing that businesses recognise the need to allocate resources to innovation. As shown in Figure 2, the most commonly reported activities were in acquisition of computer software and hardware, followed by investment in training.

Breakdown of activities (all enterprises)
Figure 2



INNOVATION BY INDUSTRY TYPE

As shown in Table 3, the percentage of firms reported to be innovation active varied considerably across industrial and commercial sectors.

Sixty-three per cent of respondents in the production and construction sector were innovation active, compared with 55 per cent of enterprises in the distribution and services sector. This represented a narrowing of the innovation gap between these sectors since 2002-04, when the equivalent proportions were 63 and 52 per cent respectively.

Similar to NI findings, across the entire UK a larger proportion of production and construction enterprises were innovation active during 2004-06 (69 per cent) compared to distribution and services (61 per cent).

In the NI production and construction sector, 85 per cent of manufacturing enterprises not elsewhere classified were innovation active, against only 40 per cent of enterprises in mining and quarrying.

In the distribution and services sector, financial intermediation had the highest proportion of innovation active enterprises (69 per cent), against only 35 per cent for hotels and restaurants. This latter group was also the least innovative sector in the UK as a whole (46 per cent).

It is interesting to note that the proportion of wholesale and retail trade enterprises in NI that were innovation active increased by approximately 10 percentage points compared to 2002-04.

Innovation activity by industry
Table 3

Percentage of all enterprises

INDUSTRY	SIZE OF ENTERPRISE					
	SMEs		Large		All	
	NI	UK	NI	UK	NI	UK
Production and Construction Sector	**62**	**69**	**84**	**83**	**63**	**69**
Electrical and optical equipment	D	81	D	85	67	81
Fuels, chemicals, plastic, metals and minerals	72	75	78	83	72	76
Manufacturing not elsewhere classified	85	73	-	88	85	73
Transport equipment	D	70	D	86	81	73
Food, clothing, wood, paper, publishing and printing	65	72	100	85	67	72
Electricity, gas and water supply	72	59	-	95	72	67
Construction	D	59	D	76	53	59
Mining and Quarrying	40	52	-	79	40	56
Distribution and Services Sector	**54**	**61**	**68**	**70**	**55**	**61**
Real estate, renting and business activities (including SIC (2003) 92.1/2)	68	68	71	72	68	68
Financial intermediation	D	65	D	60	69	65
Transport, storage and communication	D	62	D	70	60	63
Wholesale trade (including cars and bikes)	58	63	57	71	58	63
Retail trade (excluding cars and bikes)	54	59	67	68	55	59
Hotels and restaurants	35	45	50	68	35	46
ALL INDUSTRIES	**57**	**63**	**73**	**74**	**57**	**64**

Key
D = disclosive figures
- = no enterprises responded in this sector/size group

Constraints on innovation

3

Successful and evidence-based policy interventions require an understanding of the barriers to business innovation. These barriers can be internal obstacles that the enterprise encounters while carrying out innovation activities as well as external factors preventing innovation.

The survey asked about a range of constraining factors and their effect on the ability to innovate. Table 4 shows the proportion of respondents who gave a 'high' rating to each category of constraint. Similar to results from the 2005 survey, cost factors were most commonly regarded as significant barriers to innovation among NI and UK enterprises. This was particularly true with regards to the direct costs of innovation being too high (12 per cent of NI respondents associated a high degree of importance to this, compared to 11 per cent of UK respondents). Among large NI and UK enterprises, excessive perceived economic risks were also commonly regarded as significant barriers to innovation.

While cost factors continued to be the most commonly reported significant barrier to innovation among all NI enterprises, the proportions of businesses reporting each barrier as highly significant dropped slightly compared to the 2005 survey. Conversely, each of the knowledge and market factors experienced a marginal increase in the proportion of all NI enterprises reporting them as a significant barrier to innovation, compared to the 2005 survey.

Enterprises regarding potential barriers to innovation as 'high'
Table 4

Percentage of respondents

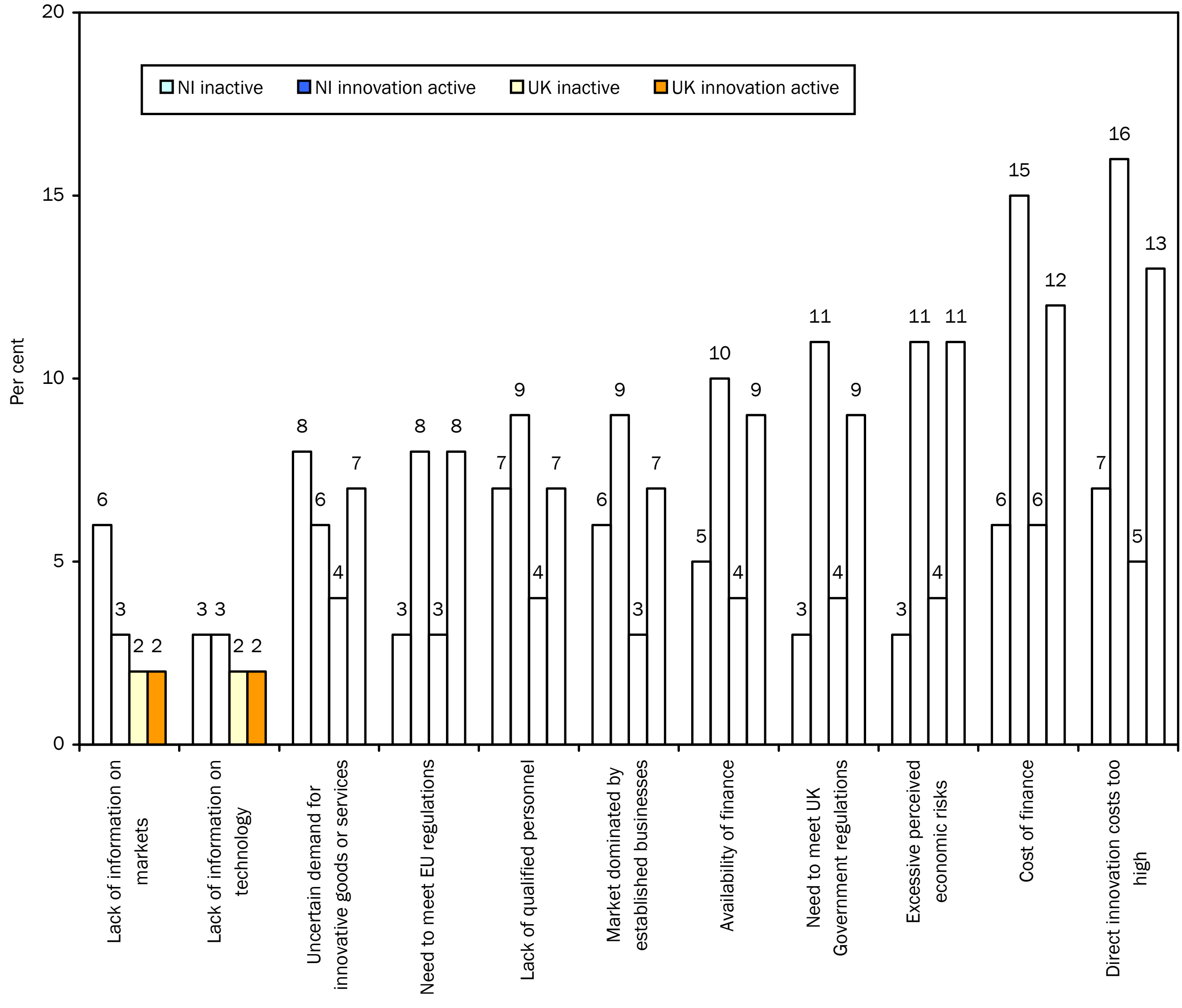
BARRIER		SIZE OF ENTERPRISE					
		SMEs		Large		All	
		NI	UK	NI	UK	NI	UK
Cost Factors	Direct innovation costs too high	12	11	19	13	12	11
	Cost of finance	11	10	8	8	11	10
	Excessive perceived economic risks	7	9	19	11	8	9
	Availability of finance	8	8	5	7	8	8
Knowledge Factors	Lack of qualified personnel	8	6	2	5	8	6
	Lack of information on markets	4	2	4	3	4	2
	Lack of information on technology	3	2	3	2	3	2
Market Factors	Market dominated by established businesses	8	6	7	8	8	6
	Uncertain demand for innovative goods or services	7	6	7	7	7	6
Other Factors	Need to meet UK Government regulations	8	8	5	8	8	8
	Need to meet EU regulations	6	7	2	6	6	7

As shown in Figure 3, and similar to results from the 2005 survey, UK enterprises engaged in innovation activity were more likely to perceive barriers as being highly important compared to those who did not attempt to innovate. However, and unlike the 2005 survey findings, this was not always the case among NI enterprises. Here, knowledge and market factors such as lack of information on markets and uncertain demand for innovative goods or services were more likely to be perceived as highly important barriers to innovation among those who did not attempt to innovate.

While UK results suggest that businesses 'learn' about the severity of barriers to innovation as a result of their attempts to innovate, NI results suggest that (compared to the 2005 survey) more businesses may be choosing not to attempt to innovate due to specific market- and knowledge-related barriers.

Perception of barriers – comparison of innovators and non-innovators rating 'high'
Figure 3

Percentage of respondents



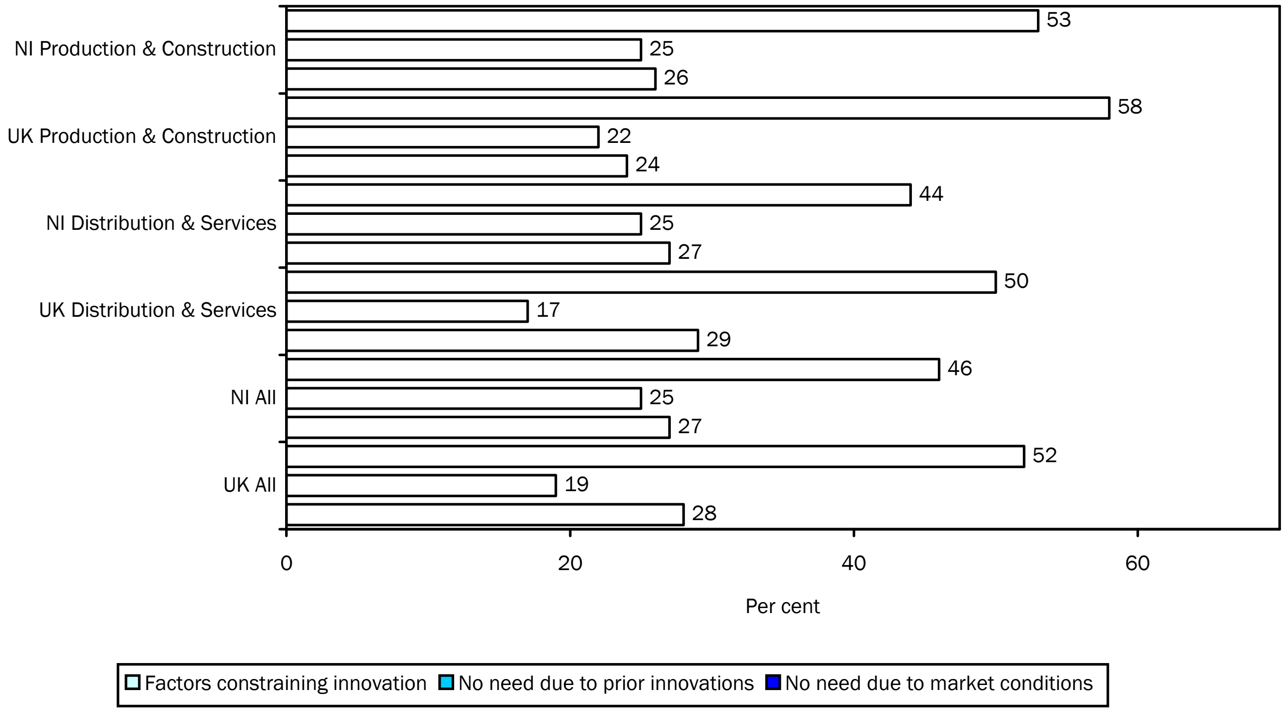
REASONS FOR NO INNOVATION

During 2002-04, 68 per cent of responding non-innovative NI enterprises felt they did not need to innovate due to market conditions, 28 per cent felt they did not need to innovate due to prior innovations and 20 per cent did not innovate due to constraining factors.

As shown in Figure 4, the proportion of non-innovating NI enterprises citing constraining factors as a reason for no innovation activity (27 per cent) has increased compared to 2002-04 findings, while those choosing not to innovate due to a lack of need has decreased. Indeed, the number of NI respondents citing a lack of need for innovation due to market conditions fell by 22 percentage points, to 46 per cent.

Reason for no innovation activity (non-innovative enterprises only)
Figure 4

Percentage of respondents



Factors driving innovation

4

On this occasion, the survey sought information about motivational factors for innovation (whereas previous surveys have asked about the effects of innovation). Respondents were asked to rank a number of drivers for innovating on a scale from 'no impact', through 'low', 'medium' or 'high' impact. The proportion of innovation active respondents who answered 'high' in each category is shown in Table 5.

Similar to findings from the 2005 survey, product-related factors were more often cited than process (cost) factors at both NI and UK level. Over half (53 per cent) of NI and nearly three fifths (57 per cent) of UK respondents rated improving the quality of goods or services as highly important, confirming a strongly customer-focused approach to innovation. Increasing the range of goods or services, and entering new markets or increasing market share were also widely reported product-related drivers.

For large enterprises in NI, increasing value added was seen as the most important driver for innovation activities. The most commonly reported driver for SMEs in NI, and SMEs and large enterprises in the UK, was the improvement in quality of goods or services that innovation would bring.

The least cited factors in NI and the UK were reducing environmental impacts or improving health and safety.

Enterprises rating factors driving innovation as 'high'
Table 5

Percentage of innovation active respondents

		SIZE OF ENTERPRISE					
FACTOR		SMEs		Large		All	
		NI	UK	NI	UK	NI	UK
	Improving quality of goods or services	52	57	63	59	53	57
Product-related	Increasing range of goods or services	44	48	36	43	44	48
	Entering new markets or increasing market share	42	47	60	53	43	47
	Improving flexibility of production or service provision	30	28	51	35	31	29
Process-related	Increasing capacity for production or service provision	29	29	38	33	29	29
	Reducing costs per unit produced or service provided	29	30	54	44	30	30
	Increasing value added	43	44	66	55	44	45
Other	Meeting regulatory requirements	30	30	47	36	31	30
	Reducing environmental impacts or improving health and safety	24	20	44	28	25	21

Sources of information and co-operation for innovation

5

Introducing innovation is an increasingly complex process, requiring the co-ordination of multiple inputs. It is therefore important to know how far enterprises engage with external sources of technology and other innovation-related knowledge and information. Businesses can gain guidance, advice or even inspiration for their prospective innovation projects from a variety of both public and private sources.

Respondents were asked to rank a number of potential information sources on a scale from 'no relationship' to 'high importance'. The proportion which answered 'high' in each category is shown in Table 6. These sources are:

- **Internal**: from within the enterprise itself or from other enterprises within the enterprise group;
- **Market**: from suppliers, customers, clients, consultants, competitors, other businesses, commercial laboratories or private research and development institutes;
- **Institutional**: from the public sector such as government research organisations and universities; or
- **Other**: from conferences, trade fairs, exhibitions, scientific journals, trade/technical publications, professional or industry associations or technical, industry or service standards.

SMEs and large enterprises in NI and the UK reported internal and market sources as most important for information on innovation. This suggests that enterprises tend to rely on their own experience and knowledge coupled with information from suppliers, customers and clients.

However, the importance of most of the market sources of information had increased compared with the 2005 survey, while internal sources of information was unchanged (both for NI and the UK). In NI, 30 per cent of respondents felt that clients or customers were a highly important source of information during 2004-06, compared to 24 per cent during 2002-04. The equivalent UK figure was 32 per cent, compared to 27 per cent during 2002-04.

The institutional sources were considered to be of lowest importance among NI and UK enterprises.

Enterprises rating information sources as of 'high' importance
Table 6

Percentage of respondents

	INFORMATION SOURCE	SMEs NI	SMEs UK	Large NI	Large UK	All NI	All UK
Internal	Within the business or within the enterprise group	19	22	39	38	20	22
Market	Clients or customers	29	32	39	43	30	32
	Suppliers of equipment, materials, services or software	19	16	23	20	19	16
	Competitors or other businesses in the industry	14	12	12	20	14	12
	Consultants, commercial laboratories or private research & development institutes	3	3	2	5	3	3
Institutional	Universities or other higher education institutions	1	1	1	3	1	1
	Government or public research institutes	1	1	7	3	1	1
Other	Technical, industry or service standards	5	7	11	13	6	7
	Conferences, trade fairs or exhibitions	5	5	6	7	5	5
	Professional and industry associations	4	5	3	7	4	5
	Scientific journals and trade/technical publications	2	3	1	5	2	3

SIZE OF ENTERPRISE

INNOVATION CO-OPERATION

Eleven per cent of innovation active NI enterprises had co-operation arrangements on innovation activities.

Among innovation active collaborators, 71 per cent had agreements that operated at a local/regional level, which was 13 percentage points higher than in the UK. UK enterprises were more likely to co-operate on a UK level (71 per cent compared to 49 per cent among NI enterprises with co-operation arrangements).

As shown in Table 7, the most frequent partners for co-operation among NI (and UK) innovation active enterprises were suppliers (70 per cent of NI and 68 per cent of UK enterprises) followed by clients or customers (NI and UK both 68 per cent). The least likely co-operation arrangement in NI and the UK was with government or public research organisations.

More innovation active NI enterprises that collaborated, did so with other businesses within their enterprise group (this co-operation arrangement was up by 10 percentage points), while the use of suppliers as partners for co-operation declined by 11 percentage points, from 81 per cent during 2002-04.

Co-operation partners (innovation active, collaborative enterprises only)
Table 7

Percentages

TYPE OF PARTNER	GEOGRAPHY OF CO-OPERATION: Local/Regional within the UK[1]	UK	Other Europe	All other countries	Any
Suppliers of equipment, materials, services or software	33	26	19	11	70
Clients or customers	49	26	15	12	68
Other businesses within the enterprise group	35	20	14	8	59
Competitors or other businesses within the industry	22	18	6	4	42
Universities or other higher education institutions	23	14	8	4	37
Consultants, commercial labs or private R&D institutes	17	16	8	4	37
Government or public research institutes	13	12	7	5	30
Any	71	49	40	25	100

[1] Within approximately 100 miles of the enterprise.

Wider forms of innovation

6

Innovation is not wholly about the development or use of technology or other forms of product or process change. Enterprises can also change their behaviour or business strategies to make themselves more competitive, often in conjunction with product or process innovation, but also as an independent means of improving competitiveness.

Enterprises were asked whether they had made major changes to their business structure and practices in the three-year period 2004 to 2006. Headline results are summarised in Table 8.

As might be expected, for NI and UK respondents, a noticeably greater proportion of large firms engaged in one or more of these changes (NI: 50 per cent of large enterprises compared to 29 percent of SMEs; UK: 56 per cent of large enterprises compared to 34 per cent of SMEs).

The 2005 survey showed that 26 per cent of NI SMEs engaged in one or more forms of wider innovation during 2002-04, compared to 29 per cent during 2004-06. This increase was reflected among all enterprises, where a similar increase was reported.

The implementation of major changes to organisation structures was the most commonly reported wider activity among NI enterprises, rising from 14 per cent during 2002-04 to 18 per cent during 2004-06.

Enterprises that introduced wider forms of innovation
Table 8

Percentage of respondents

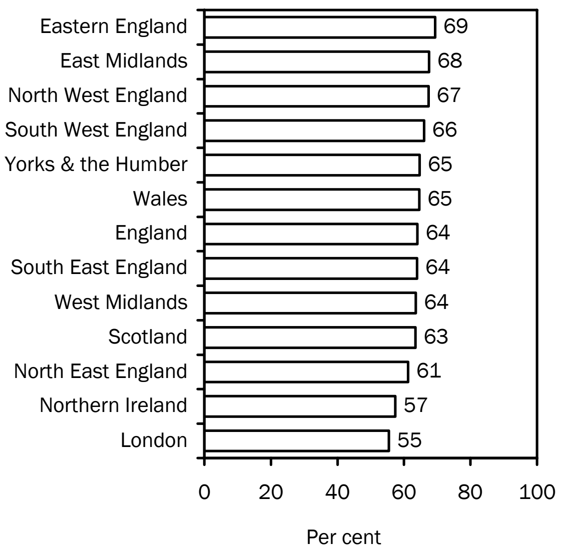
	SIZE OF ENTERPRISE					
	SMEs		Large		All	
	NI	UK	NI	UK	NI	UK
Wider innovator (any of changes below)	**29**	**34**	**50**	**56**	**29**	**35**
Major changes to organisation structure	17	21	40	41	18	22
New or significantly changed corporate strategy	15	17	32	29	15	17
Changes to marketing concepts or strategies	14	20	31	29	15	20
New management techniques	11	13	33	28	11	14

Regional variation and historical changes

7

Figure 5 shows the rate of innovation activity for businesses across the countries and regions of the UK. Results for 2004-06 displayed a greater level of regional variation than did the 2005 survey, ranging from 69 per cent in Eastern England to 55 per cent in London. NI had the second lowest rate of business innovation activity across the UK regions and countries.

Regional innovation patterns
Figure 5 Mean percentages



COMPARISONS WITH THE 2001 AND 2005 INNOVATION SURVEYS
Figure 6 compares headline statistics from the 2001 UK Innovation Survey (referencing 1998-00), the 2005 survey (referencing 2002-04), and the 2007 survey (referencing 2004-06), and limits analysis to those industry sectors common to all three surveys[2].

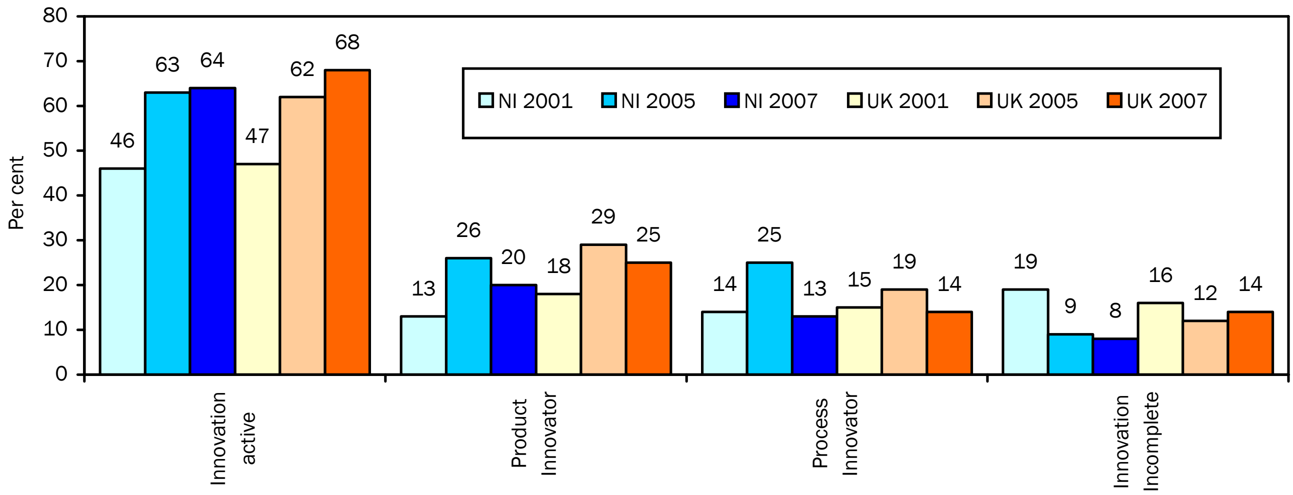
Using this more restricted but comparable sector coverage, the proportion of innovation active enterprises in the 2007 survey was around 64 per cent (68 per cent among UK enterprises). While NI results were similar to those reported in the 2005 survey, they represented an increase of 18 percentage points on the NI results reported in 2001.

When innovation activity is examined by its component parts, the proportion of enterprises reporting product, process and incomplete innovations decreased in the 2007 survey (compared to the 2005 survey). However, it is noteworthy that the proportions of businesses engaged in at least one innovation-related activity were similar (62 per cent in both surveys).

[2] Sectors covered in all three surveys were SIC 10-14, 15-37, 40-41, 45, 51, 60-64, 65-67 and 70-74. Other differences between the surveys, such as in the sample design, definitions, and weighting methodology, are not accounted for.

Comparisons of 2001, 2005 and 2007 Innovation Surveys: proportions of innovating enterprises across common industry sectors
Figure 6

Percentages



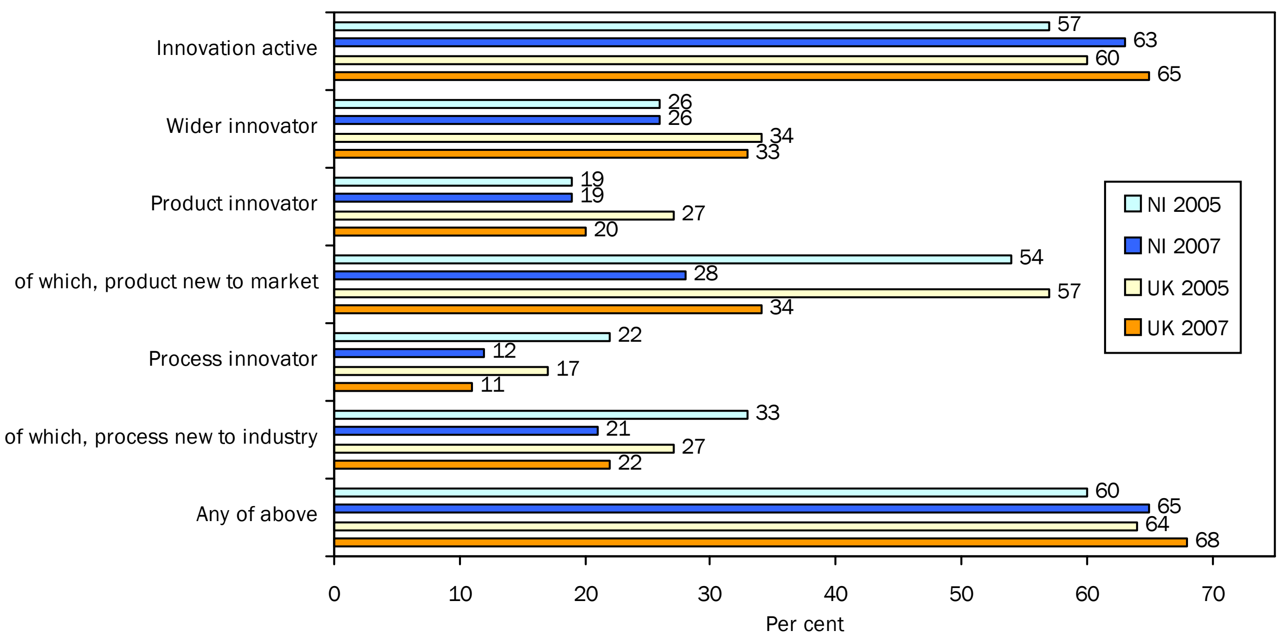
COMPARISONS WITH THE 2005 UK INNOVATION SURVEY PANEL

Due to the relatively small number of NI respondents to the 2001 UK Innovation Survey, analysis of businesses responding to both the 2001 and 2005 survey was not possible. However, as almost half of the NI respondents to the 2007 survey also responded to the 2005 survey, it is possible to examine how innovation activity among this like-for-like group has changed over time.

As shown in Figure 7, the proportion of NI and UK enterprises that were innovation active during 2004-06 has increased by approximately 5 percentage points compared to 2002-04. When examined separately, the proportions of enterprises reporting product, process and wider innovation activity in the 2007 survey were similar or reduced compared to the 2005 survey. However, it is important to note that the proportion of businesses engaged in at least one innovation-related activity increased (by 4 percentage points among NI enterprises, to 61 per cent during 2004-06).

UK Innovation Survey panel
Figure 7

Percentages



Background Notes for Innovation Survey 2007

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METHODOLOGY
The UK Innovation Survey is part of a wider Community Innovation Survey (CIS) covering European countries. The survey is based on a core questionnaire developed by the European Commission (Eurostat) and Member States. This is the fifth iteration of the survey (CIS 5) – CIS 4, covering the period 2002 to 2004, was carried out in 2005 and the results form part of various EU benchmarking exercises (see http://ec.europa.eu/enterprise/innovation/index_en.htm#3).

The UK Innovation Survey 2007 surveyed over 2,000 enterprises in NI. The survey was voluntary and conducted by means of a postal questionnaire.

COVERAGE AND SAMPLING
The 2007 survey sampled enterprises with ten or more employees in sections C to K of the Standard Industrial Classification (SIC) 2003, and included groups (SIC 92.1/2) excluded from the 2005 survey. The groups included are as follows:

Production and Construction Sector
SIC 10-14 - Mining and Quarrying
SIC 15-22 - Food, clothing, wood, paper, publishing and printing
SIC 23-29 - Fuels, chemicals, plastic, metals and minerals
SIC 30-33 - Electrical and optical equipment
SIC 34-35 - Transport equipment
SIC 36-37 - Manufacturing not elsewhere classified
SIC 40-41 - Electricity, gas and water supply
SIC 45 - Construction

Distribution and Services Sector
SIC 50-51 - Wholesale trade (including cars and bikes)
SIC 52 - Retail trade (excluding cars and bikes)
SIC 55 - Hotels and restaurants
SIC 60-64 - Transport, storage and communication
SIC 65-67 - Financial intermediation
SIC 70-74 - Real estate, renting and business activities (including SIC (2003) 92.1/2, motion picture and video activities, and radio and television activities)

The sample was drawn from the ONS Inter-Departmental Business Register in January 2007.

The methodology, sample details and first UK-level findings from CIS 5 can be found on the UK Statistics Authority website at: http://www.statistics.gov.uk/elmr/04_08/downloads/ELMR_Apr08.pdf (see pages 47-53).

To be consistent with the CIS 4 approach to analysis, DETI has, where appropriate, reported on respondents only (i.e. excluding item non-response). This has resulted in some differences in reporting between DETI and DIUS where the latter included item non-response values for some variables in their analyses. Where differences do exist, UK results are presented in this publication consistent with the NI approach. However, these differences in methodology do not impact on the headline innovation activity measure.

RESPONSE AND WEIGHTING
The questionnaires from the initial survey were distributed on 29 March 2007. Enterprises not responding received written reminders in mid-May and mid-June with the second reminder also including a copy of the questionnaire. Finally, around 900 non-responding enterprises were contacted by telephone in an effort to further boost response rates.

Of the 2,017 enterprises selected, 1,081 valid responses were received, to give a response rate of almost 54 per cent. The population and achieved sample are summarised in Table 9 below.

The results in this report are based on weighted data in order to be representative of the population of businesses. The responses were weighted back to the population using the inverse sampling proportion in each stratum, that is, the weight attributed to each enterprise was the number of enterprises in the population divided by the number of responses in that stratum.

Please note that as with all sample surveys, the estimates provided in this publication are subject to an associated degree of sampling error.

Summary of sample frame
Table 9 Number of enterprises

ENTIRE NI POPULATION			SIZE OF ENTERPRISE		
SMEs	Large	All	SMEs	Large	All
6,829	186	7,015	990	91	1,081

FURTHER INFORMATION
Further information is available on request from:

Department of Enterprise, Trade & Investment
Statistics Research Branch
Room 110
Netherleigh
Massey Avenue
Belfast BT4 2JP

Telephone: (028) 9052 9385 or 9052 9897
Fax: (028) 9052 9459
Textphone: (028) 9052 9304
E-mail: mark.mcfetridge@detini.gov.uk
Website: www.statistics.detini.gov.uk