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Community Innovation Survey 2004-2006

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Chapter 1

Overview and Summary

The Community Innovation Survey (CIS) 2006 is a survey of innovation activities of enterprises in Ireland and other EU Member States. The CIS is carried out under Commission Regulation (EC) No 1450/2004 implementing Decision No 1608/2003/EC. The survey collects information about product and process innovation as well as organisational innovation along with other key variables during the three year period 2004 to 2006 inclusive. Most questions cover new or significantly improved goods or services or the implementation of new or significantly improved processes, logistics or distribution methods.

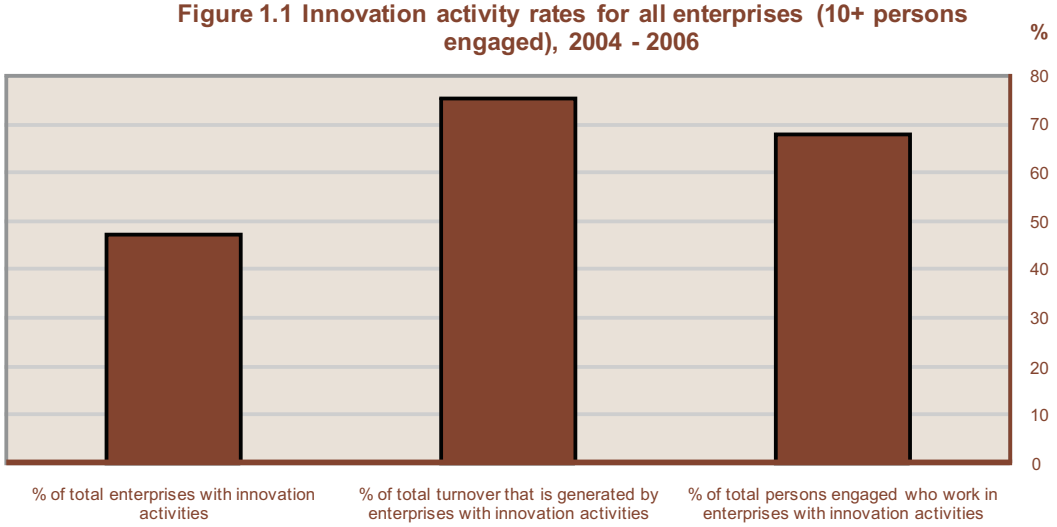
The Community Innovation Survey (CIS) was previously conducted by Forfás but is now jointly conducted by the Central Statistics Office (CSO) and Forfás to increase efficiency in the collection of statistical data and to reduce the burden on the participating enterprises. Data were collected in accordance with Section 33 of the Statistics Act, 1993 and with EU law and the survey was carried out under the agreed set of international rules as laid out in the OECD Oslo manual. Detailed results from the survey are included in chapters 2 to 9, some international comparisons are included in chapter 10 and in addition some results based on linking data to the CSO's Structural Business Surveys (that is, the Census of Industrial Production and the Annual Services Inquiry) are included in chapter 11. This publication expands on the previous first findings release issued jointly by the CSO and Forfás in June 2008.

Note: Methodological changes have been introduced in the CIS 2004-2006. As a consequence of this, no conclusions should be drawn regarding the direction or scale of any real changes between CIS 2002-2004 (CIS4) and CIS 2004-2006.

Almost half of all enterprises were innovation active during 2004 to 2006

Overall, it was found that more than 47% of all enterprises with ten or more persons engaged in the industrial and selected services sectors[1] were innovation active over the period 2004-2006 inclusive. Just over 75% of all turnover generated by enterprises with ten or more persons engaged was generated by enterprises who were innovation active, while 68% of persons engaged worked in such innovation active enterprises. *See Figure 1.1*.

Figure 1.1 Innovation activity rates for all enterprises (10+ persons engaged), 2004 - 2006



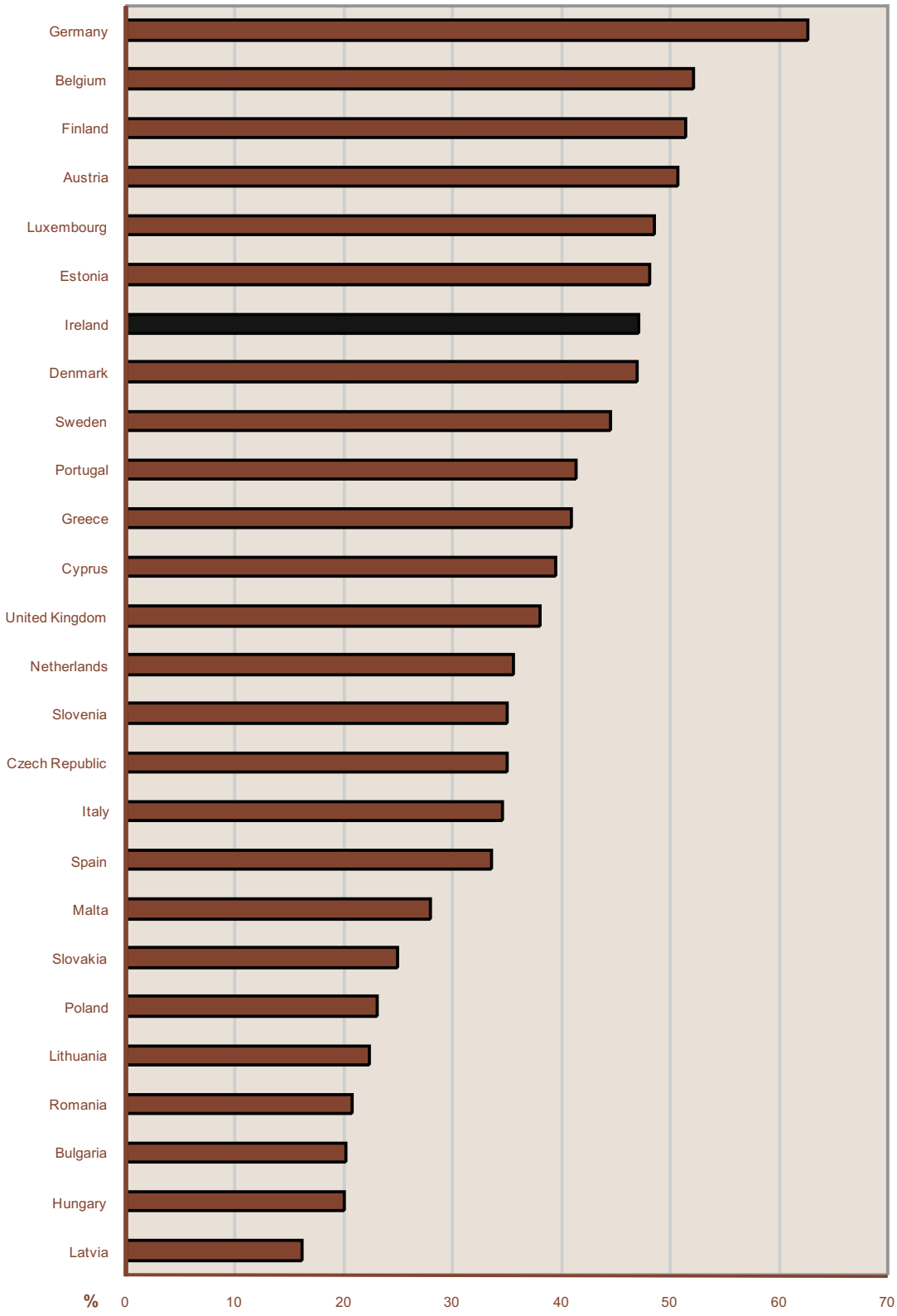
Source: CSO/Forfás - Community Innovation Survey 2004-2006.
Note: Turnover and persons engaged in 2006.
Note: Includes industry (NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-67, 72, 74.2, 74.3).

Ireland ranked 7th within EU27 for enterprises being innovation active during 2004 to 2006

Innovation activity rates for enterprises in industry and selected services sectors with at least ten persons engaged were highest in Germany (63%), Belgium (52%) and Finland (51%). Ireland had the 7th highest innovation rate amongst those countries in the EU27 for which results were available. *See Figure 1.2.*

1 Wholesale and commission trade excluding motor vehicles, transport, storage and communications, financial intermediation, computer and related activities, architectural and engineering activities and related technical consultancy along with technical testing and analysis

Figure 1.2 Percentage of total enterprises with innovation activities, 2004-2006

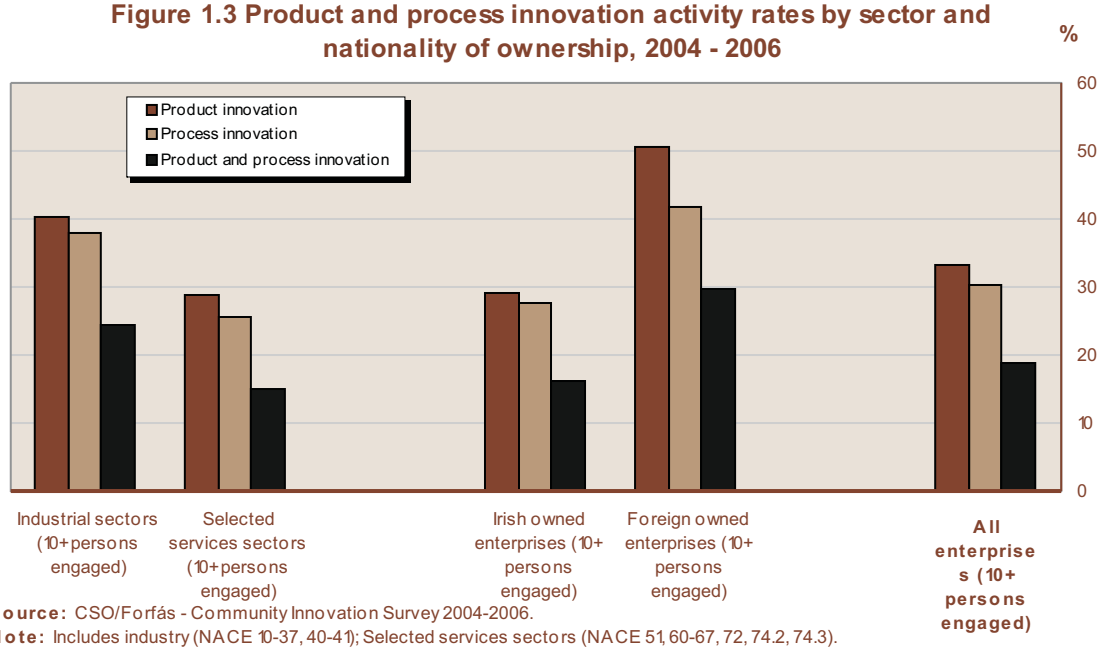


Source: Eurostat - Community Innovation Survey 2004-2006.
Note: Includes industry (NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-67, 72, 74.2, 74.3).

More than 33% of enterprises were engaged in product innovations; 30% were engaged in process innovations

A third of enterprises in the industrial and selected services sectors with ten or more persons engaged had product innovations while 30% were engaged in process innovations. Almost 19% of these enterprises were engaged in both process and product innovations. Almost 38% of industrial enterprises were engaged in process innovation compared to a quarter of enterprises in selected services sectors. Foreign owned enterprises were more likely to engage in product innovations, process innovations or both product and process innovations compared to Irish owned enterprises. *See Figure 1.3.*

Figure 1.3 Product and process innovation activity rates by sector and nationality of ownership, 2004 - 2006

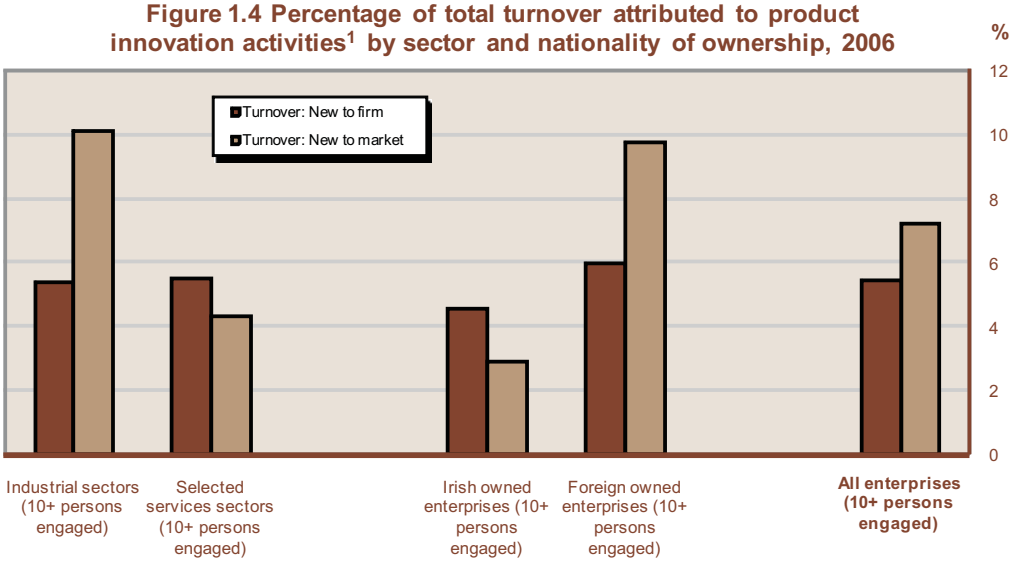


Source: CSO/Forfás - Community Innovation Survey 2004-2006.
Note: Includes industry (NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-67, 72, 74.2, 74.3).

Almost 13% of turnover in the industrial and selected services sectors in 2006 resulted from new to firm or new to market product innovations

Just over 7% of turnover for enterprises in 2006 was estimated to be the result of new to the market product innovations between 2004 and 2006 while more than 5% of turnover was as a result of new to the firm product innovations in the same period. Just under 10% of the turnover of foreign owned enterprises was generated as a result of new to the market product innovations compared to 3% of the turnover of Irish owned enterprises. *See Figure 1.4.*

Figure 1.4 Percentage of total turnover attributed to product innovation activities[1] by sector and nationality of ownership, 2006

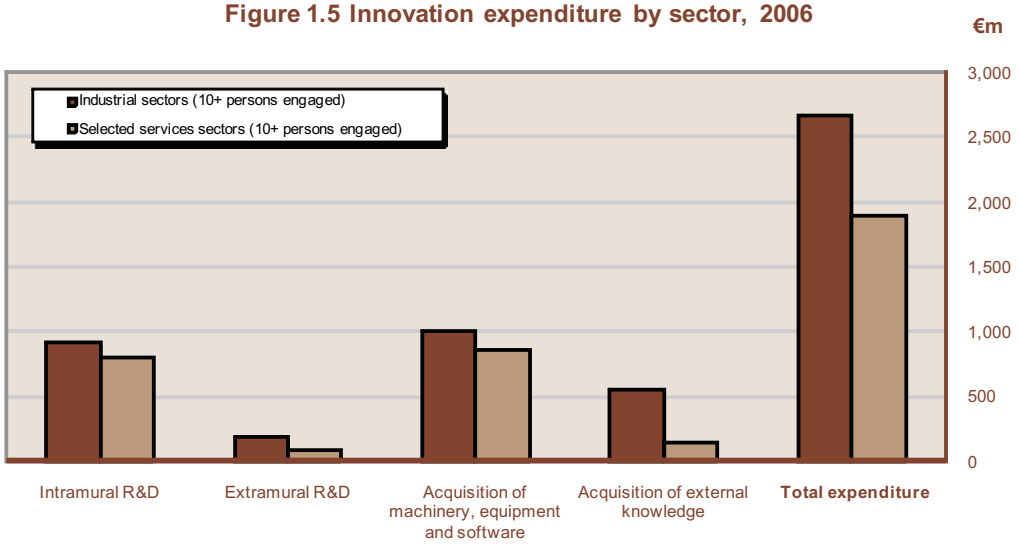


Source: CSO/Forfás - Community Innovation Survey 2004-2006.
[1] Product innovation activities during the period 2004-2006.
Note: Includes industry (NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-67, 72, 74.2, 74.3).

Almost €4.6bn spent on innovation activity in 2006

Total spending on innovation related activities across the Irish economy was almost €4.6bn in 2006. Industrial enterprises spent €1bn on the acquisition of machinery, equipment or software in 2006, while selected services enterprises spent €860m. Almost 38% of expenditure or €1.7bn was spent on intramural R&D. *See Figure 1.5.*

Figure 1.5 Innovation expenditure by sector, 2006

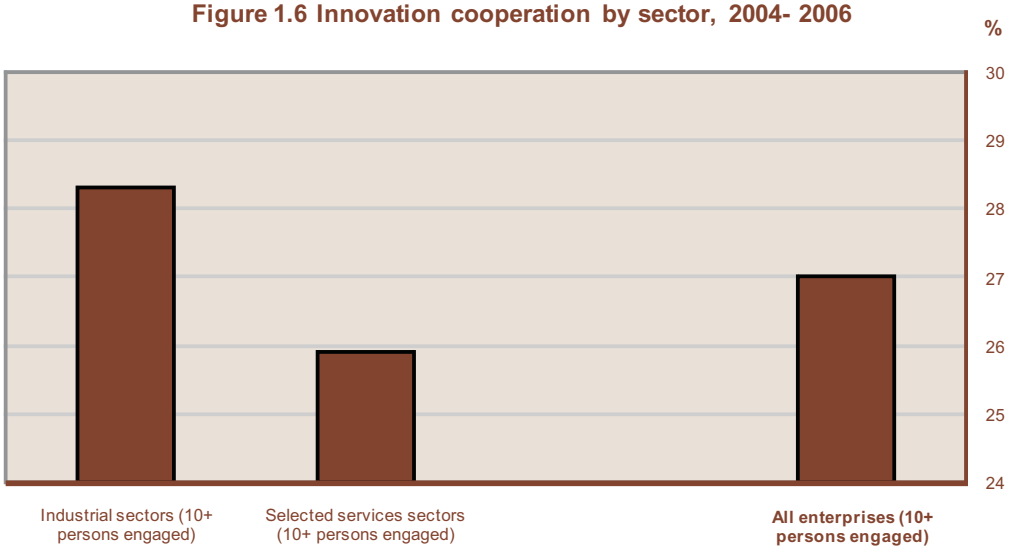


Source: CSO/Forfás - Community Innovation Survey 2004-2006.
Note: Includes industry (NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-67, 72, 74.2, 74.3).

Over a quarter of all innovation active enterprises engaged in innovation cooperation

More than a quarter (27%) of all innovation active enterprises engaged in innovation cooperation. The industrial and selected services sectors had similar rates of innovation cooperation, 28% for industrial enterprises and 26% for selected services enterprises. *See Figure 1.6.*

Figure 1.6 Innovation cooperation by sector, 2004- 2006



Source: CSO/Forfás - Community Innovation Survey 2004-2006.
Note: Includes industry (NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-67, 72, 74.2, 74.3).

Chapter 2

Innovation Rates

Introduction

Enterprises which are classed as innovation active are those enterprises that have carried out a product innovation or a process innovation between 2004 and 2006, or who have abandoned or have on-going innovation activities.

Innovation Rates by Number of Persons Engaged

In the period 2004 to 2006 inclusive, over 47% of enterprises in Ireland with ten or more persons engaged indicated that they were active innovators. More than 75% of the turnover generated by enterprises with ten or more persons engaged was generated by enterprises who were engaged in innovation activities, while 68% of persons engaged worked in such innovation active enterprises. In large enterprises (250+ persons engaged), active innovators generated 90% of turnover. *See Table 2.1, Figure 2.1 and Table 2.6*.

Table 2.1 Innovation activity rates by number of persons engaged, 2004 - 2006

%

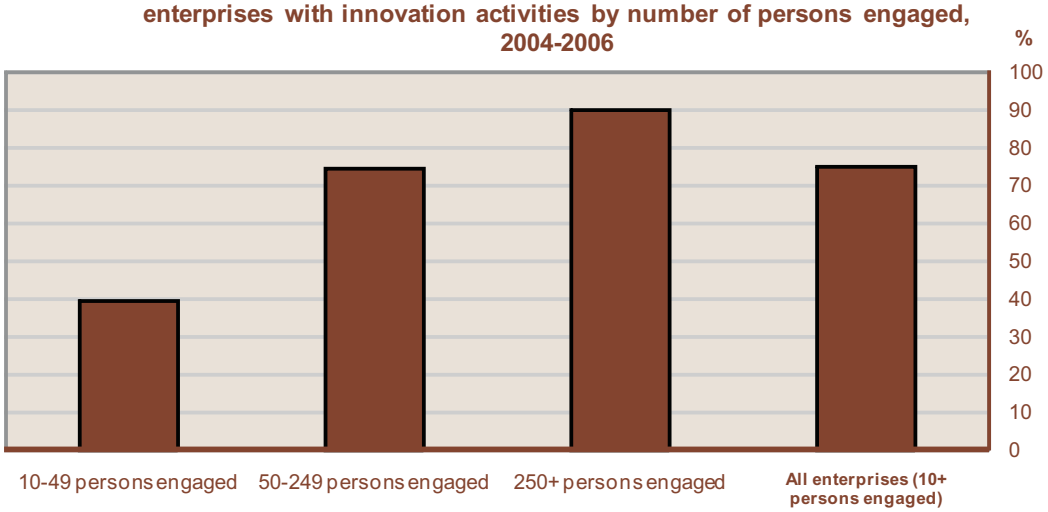
	% of total enterprises with innovation activities	% of total turnover that is generated by enterprises with innovation activities	% of total persons engaged who work in enterprises with innovation activities
10-49	42.7	39.3	46.4
50-249	62.5	74.4	65.5
250+	74.9	90.0	80.1
All enterprises (10+ persons engaged)	**47.2**	**75.1**	**68.0**

Source: CSO/Forfás - Community Innovation Survey 2004 - 2006.

Note: Turnover and persons engaged in 2006.

Note: Includes industry (NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-67, 72, 74.2 and 74.3). See Appendix 2 for NACE classifications.

Figure 2.1 Percentage of total turnover that is generated by enterprises with innovation activities by number of persons engaged, 2004-2006



Source: CSO/Forfás - Community Innovation Survey 2004-2006.
Note: Turnover in 2006.
Note: Includes industry (NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-67, 72, 74.2, 74.3).

Innovation Rates by Sector and Number of Persons Engaged

Almost 57% of industrial enterprises were classed as innovation active in the period 2004 to 2006; 41% of selected services enterprises were innovation active during the same period. Just under 87% of turnover in industry was generated by enterprises engaged in innovation compared to 64% of turnover for enterprises in selected services sectors. Almost 97% of the turnover of all large industrial enterprises was generated by active innovators, while 91% of persons engaged by large industrial enterprises worked in innovation active enterprises. *See Table 2.2 and Table 2.6.*

Table 2.2 Innovation activity rates by sector and number of persons engaged, 2004 - 2006

%

	% of total enterprises with innovation activities	% of total turnover that is generated by enterprises with innovation activities	% of total persons engaged who work in enterprises with innovation activities
Industrial sectors			
10-49	51.4	37.5	56.8
50-249	67.3	75.6	70.1
250+	84.2	96.8	91.0
Total	**56.7**	**86.9**	**77.2**
Selected services sectors			
10-49	38.1	39.8	39.9
50-249	57.5	73.6	60.1
250+	63.1	76.5	71.8
Total	**41.3**	**63.5**	**60.5**
All enterprises (10+ persons engaged)	**47.2**	**75.1**	**68.0**

Source: CSO/Forfás - Community Innovation Survey 2004 - 2006.

Note: Turnover and persons engaged in 2006.

Note: Includes industry (NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-67, 72, 74.2 and 74.3). See Appendix 2 for NACE classifications.

Innovation Rates by Nationality of Ownership and Number of Persons Engaged

Foreign owned enterprises had higher rates of innovation activity, turnover related to innovation activity and percentage of persons engaged working in innovation active enterprises for all size classes of enterprise when compared to Irish owned enterprises. Almost 65% of all foreign enterprises with ten or more persons engaged were innovation active compared to 43% of Irish owned enterprises. More than 76% of persons engaged by foreign enterprises were engaged by enterprises that were innovation active compared to 63% of persons engaged by Irish owned enterprises. *See Table 2.3, Figure 2.2 and Table 2.6.*

Table 2.3 Innovation activity rates by nationality of ownership and number of persons engaged, 2004 - 2006

%

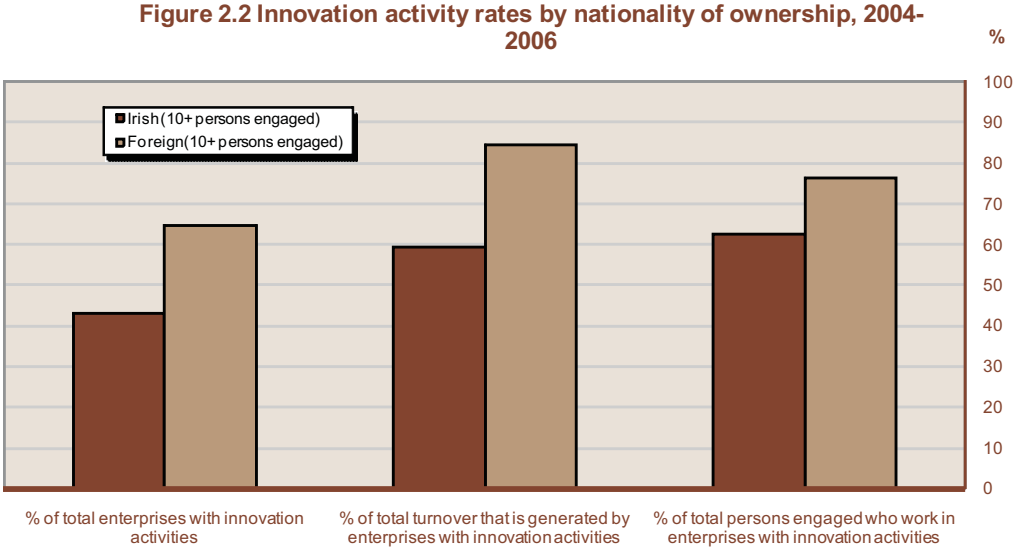
	% of total enterprises with innovation activities	% of total turnover that is generated by enterprises with innovation activities	% of total persons engaged who work in enterprises with innovation activities
Irish			
10-49	40.2	31.1	43.7
50-249	58.0	58.9	61.7
250+	69.9	81.4	79.1
Total	**43.0**	**59.5**	**62.5**
Foreign			
10-49	58.7	50.0	61.0
50-249	70.1	83.2	70.9
250+	78.0	93.6	81.2
Total	**64.7**	**84.4**	**76.3**
All enterprises (10+ persons engaged)	**47.2**	**75.1**	**68.0**

Source: CSO/Forfás - Community Innovation Survey 2004 - 2006.

Note: Turnover and persons engaged in 2006.

Note: Includes industry (NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-67, 72, 74.2 and 74.3). See Appendix 2 for NACE classifications.

Figure 2.2 Innovation activity rates by nationality of ownership, 2004-2006



Source: CSO/Forfás - Community Innovation Survey 2004 - 2006.
Note: Turnover and persons engaged 2006.
Note: Includes industry (NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-67, 72, 74.2, 74.3).

Innovation Rates by Sector, Nationality of Ownership and Number of Persons Engaged

Almost 73% of foreign owned industrial enterprises were innovation active compared to 52% of Irish owned industrial enterprises. In the same period, 58% of foreign owned enterprises in selected services sectors were innovation active compared to 38% of such Irish owned enterprises. More than 91% of the turnover of foreign owned industrial enterprises was generated by innovation active enterprises in comparison to 71% of the turnover of Irish owned industrial enterprises. *See Table 2.4, Figure 2.3, Figure 2.4 and Table 2.6.*

Table 2.4 Innovation activity rates by sector, nationality of ownership and number of persons engaged, 2004 - 2006

%

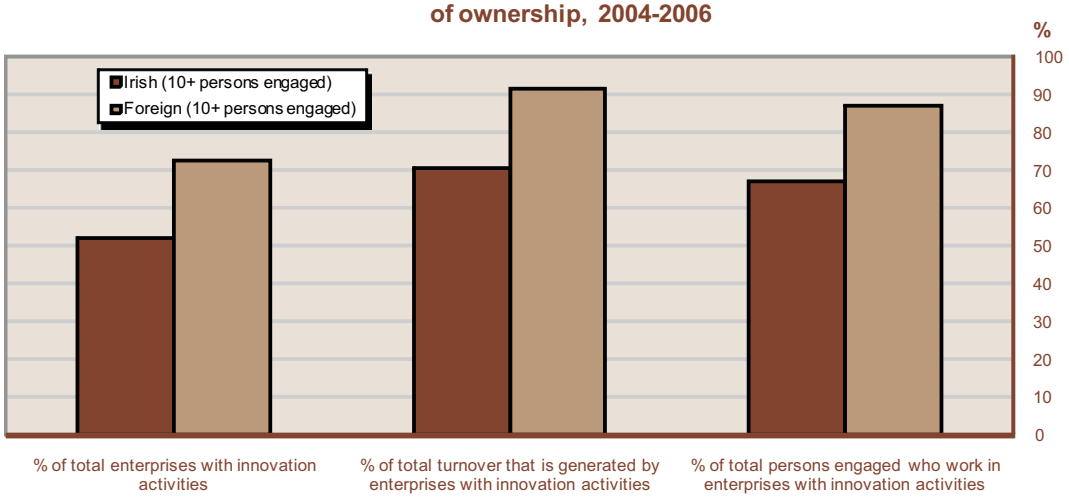
	% of total enterprises with innovation activities	% of total turnover that is generated by enterprises with innovation activities	% of total persons engaged who work in enterprises with innovation activities
Industrial sectors			
Irish			
10-49	49.0	47.9	54.4
50-249	62.8	63.1	65.9
250+	76.9	91.0	85.8
Total	**52.1**	**70.7**	**67.1**
Foreign			
10-49	65.6	25.5	69.3
50-249	74.7	83.6	75.9
250+	87.6	97.6	93.1
Total	**72.6**	**91.4**	**87.0**
Selected services sectors			
Irish			
10-49	35.5	26.7	37.0
50-249	53.1	55.9	56.9
250+	63.3	77.9	77.0
Total	**37.7**	**55.0**	**60.0**
Foreign			
10-49	54.8	57.4	55.6
50-249	64.8	82.9	64.8
250+	61.4	73.8	61.5
Total	**58.2**	**73.1**	**61.6**
All enterprises (10+ persons engaged)	**47.2**	**75.1**	**68.0**

Source: CSO/Forfás - Community Innovation Survey 2004 - 2006.

Note: Turnover and persons engaged in 2006.

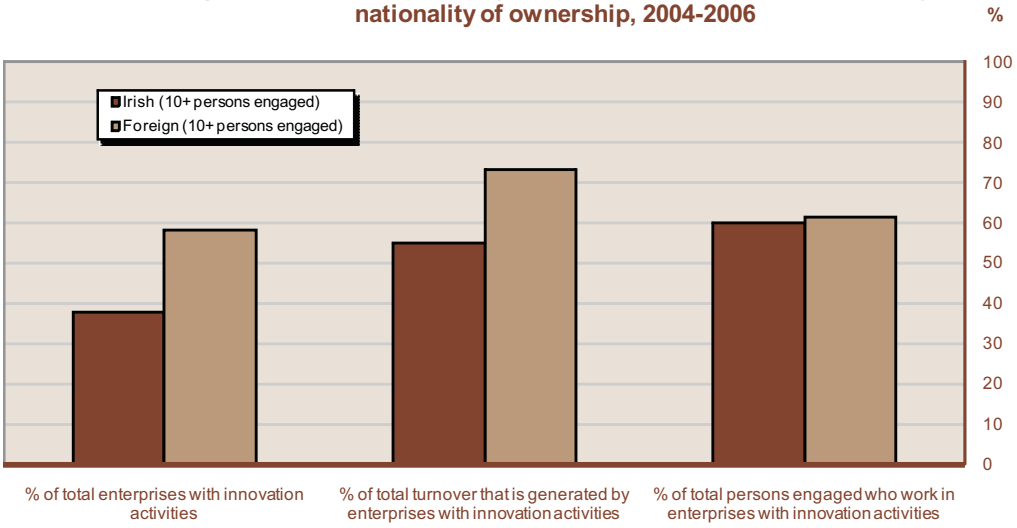
Note: Includes industry (NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-67, 72, 74.2 and 74.3). See Appendix 2 for NACE classifications.

Figure 2.3 Innovation activity rates in industrial sectors by nationality of ownership, 2004-2006



Source: CSO/Forfás - Community Innovation Survey 2004 - 2006.
Note: Turnover and persons engaged in 2006.
Note: Includes industry (NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-67, 72, 74.2, 74.3).

Figure 2.4 Innovation activity rates in selected services sectors by nationality of ownership, 2004-2006



Source: CSO/Forfás - Community Innovation Survey 2004 - 2006.
Note: Turnover and persons engaged in 2006.
Note: Includes industry (NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-67, 72, 74.2, 74.3).

Innovation Rates by Detailed Sector

Almost 86% of all enterprises in NACE sectors 30-33 (Manufacture of electrical and optical equipment) were innovation active while 70% of enterprises in NACE 24 (Manufacture of chemicals, chemical products and man-made fibres) were engaged in innovation activities. In NACE sectors 21-22 (Manufacture of pulp, paper and paper products; publishing and printing) and NACE 30-33 (Manufacture of electrical and optical equipment), 96% of all turnover was generated by those enterprises who were innovation active. *See Table 2.5.*

Table 2.5 Innovation activity rates by NACE sub-sector and sector, 2004 - 2006

%

NACE code	NACE sector	% of total enterprises with innovation activities	% of total turnover that is generated by enterprises with innovation activities	% of total persons engaged who work in enterprises with innovation activities
Industrial sectors				
10-14	**Mining and quarrying.**	**21.4**	**35.5**	**35.4**
10, 11, 13	Mining of coal and lignite; extraction of peat; Extraction of crude petroleum and natural gas; service activities; Mining of metal ores.	60.0	59.4	63.4
14	Other mining and quarrying.	16.2	14.6	16.4
15-37	**Manufacturing.**	**57.8**	**88.2**	**77.6**
15,16	**Manufacture of food, beverages and tobacco.**	**c:**	**c:**	**c:**
15	Manufacture of food and beverages.	59.2	76.3	75.5
16	Manufacture of tobacco.	c:	c:	c:
17-19	**Manufacture of textiles and textile products; Manufacture of leather and leather products.**	**64.2**	**71.8**	**68.7**
17	Manufacture of textiles.	79.2	95.9	79.6
18, 19	Manufacture of wearing apparel; dressing and dyeing of fur; Manufacture of leather and leather products.	45.1	35.7	47.8
20	**Manufacture of wood and wood products.**	**57.1**	**71.2**	**64.8**
21, 22	**Manufacture of pulp, paper and paper products; publishing and printing**	**43.2**	**96.0**	**60.3**
21	Manufacture of pulp, paper and paper products.	48.6	60.1	59.9
22	Publishing, printing and reproduction of recorded media.	41.9	97.3	60.4
23	**Manufacture of coke, refined petroleum products and nuclear fuel.**	**c:**	**c:**	**c:**
24	**Manufacture of chemicals, chemical products and man-made fibres.**	**70.0**	**93.0**	**87.0**
25	**Manufacture of rubber and plastic products.**	**57.0**	**64.7**	**74.3**
26	**Manufacture of other non-metallic mineral products.**	**52.0**	**77.6**	**70.5**
27, 28	**Manufacture of basic metals and fabricated metal products.**	**44.5**	**61.3**	**57.3**
27	Manufacture of basic metals.	46.5	72.9	70.2
28	Manufacture of fabricated metal products, except machinery and equipment.	44.3	57.4	54.8
29	**Manufacture of machinery and equipment n.e.c.**	**57.8**	**75.0**	**73.6**
30-33	**Manufacture of electrical and optical equipment.**	**85.8**	**95.7**	**91.7**
30, 31, 32	Manufacture of office machinery and computers; Manufacture of electrical machinery and apparatus n.e.c.; Manufacture of radio, television and communication equipment and apparatus.	81.9	97.5	91.2
33	Manufacture of medical, precision and optical instruments, watches and clocks.	91.5	89.0	92.2

Source: CSO/Forfás - Community Innovation Survey 2004 - 2006.

Note: Turnover and persons engaged in 2006.

Note: Includes industry (NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-67, 72, 74.2 and 74.3). See Appendix 2 for NACE classifications.

c: Confidential

Table 2.5 Innovation activity rates by NACE sub-sector and sector, 2004 - 2006 - continued

%

NACE code	NACE sector	% of total enterprises with innovation activities	% of total turnover that is generated by enterprises with innovation activities	% of total persons engaged who work in enterprises with innovation activities
34, 35	**Manufacture of transport equipment.**	**59.7**	**84.6**	**88.3**
34	Manufacture of motor vehicles, trailers and semi-trailers.	64.3	78.9	87.3
35	Manufacture of other transport equipment.	53.3	93.2	89.3
36, 37	**Manufacturing n.e.c.; Recycling.**	**59.3**	**78.7**	**68.6**
36	Manufacturing n.e.c.	56.5	76.9	65.7
37	Recycling.	91.3	96.5	97.6
40, 41	**Electricity, gas and water supply.**	**50.0**	**81.2**	**96.8**
Total industrial sectors (10+ persons engaged)		**56.7**	**86.9**	**77.2**
Selected services sectors				
51	Wholesale trade and commission trade, except motor vehicles and motorcycles.	36.4	48.6	46.5
60-64	**Transport, storage and communications.**	**31.0**	**66.5**	**54.8**
60-62	Land transport; transport via pipelines; Water transport; Air transport.	25.7	55.8	33.2
63	Supporting and auxiliary transport activities; activities of travel agencies.	29.6	49.5	50.4
64	Post and telecommunications.	52.1	81.7	89.4
65-67	**Financial intermediation.**	**45.4**	**73.5**	**79.9**
72, 74.2, 74.3	Computer and related activities; Architectural and engineering activities and related technical consultancy; Technical testing and analysis.	58.9	84.6	63.8
Total selected services sectors(10+ persons engaged)		**41.3**	**63.5**	**60.5**
All enterprises (10+ persons engaged)		**47.2**	**75.1**	**68.0**

Source: CSO/Forfás - Community Innovation Survey 2004 - 2006.

Note: Turnover and persons engaged in 2006.

Note: Includes industry (NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-67, 72, 74.2 and 74.3). See Appendix 2 for NACE classifications.

c: Confidential

Table 2.6 Summary of innovation activity rates by sector, nationality of ownership and number of persons engaged, 2004 - 2006

%

	% of total enterprises with innovation activities	% of total turnover that is generated by enterprises with innovation activities	% of total persons engaged who work in enterprises with innovation activities
Industrial sectors			
Irish			
10-49	49.0	47.9	54.4
50-249	62.8	63.1	65.9
250+	76.9	91.0	85.8
Total	**52.1**	**70.7**	**67.1**
Foreign			
10-49	65.6	25.5	69.3
50-249	74.7	83.6	75.9
250+	87.6	97.6	93.1
Total	**72.6**	**91.4**	**87.0**
Irish and foreign			
10-49	51.4	37.5	56.8
50-249	67.3	75.6	70.1
250+	84.2	96.8	91.0
Total	**56.7**	**86.9**	**77.2**
Selected services sectors			
Irish			
10-49	35.5	26.7	37.0
50-249	53.1	55.9	56.9
250+	63.3	77.9	77.0
Total	**37.7**	**55.0**	**60.0**
Foreign			
10-49	54.8	57.4	55.6
50-249	64.8	82.9	64.8
250+	61.4	73.8	61.5
Total	**58.2**	**73.1**	**61.6**
Irish and foreign			
10-49	38.1	39.8	39.9
50-249	57.5	73.6	60.1
250+	63.1	76.5	71.8
Total	**41.3**	**63.5**	**60.5**
All sectors			
Irish			
10-49	40.2	31.1	43.7
50-249	58.0	58.9	61.7
250+	69.9	81.4	79.1
Total	**43.0**	**59.5**	**62.5**
Foreign			
10-49	58.7	50.0	61.0
50-249	70.1	83.2	70.9
250+	78.0	93.6	81.2
Total	**64.7**	**84.4**	**76.3**
Irish and foreign			
10-49	42.7	39.3	46.4
50-249	62.5	74.4	65.5
250+	74.9	90.0	80.1
Total (All enterprises (10+ persons engaged))	**47.2**	**75.1**	**68.0**

Source: CSO/Forfás - Community Innovation Survey 2004 - 2006

Note: Turnover and persons engaged in 2006.

Note: Includes industry (NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-67, 72, 74.2 and 74.3). See Appendix 2 for NACE classifications.

Chapter 3

Innovation Types

Introduction

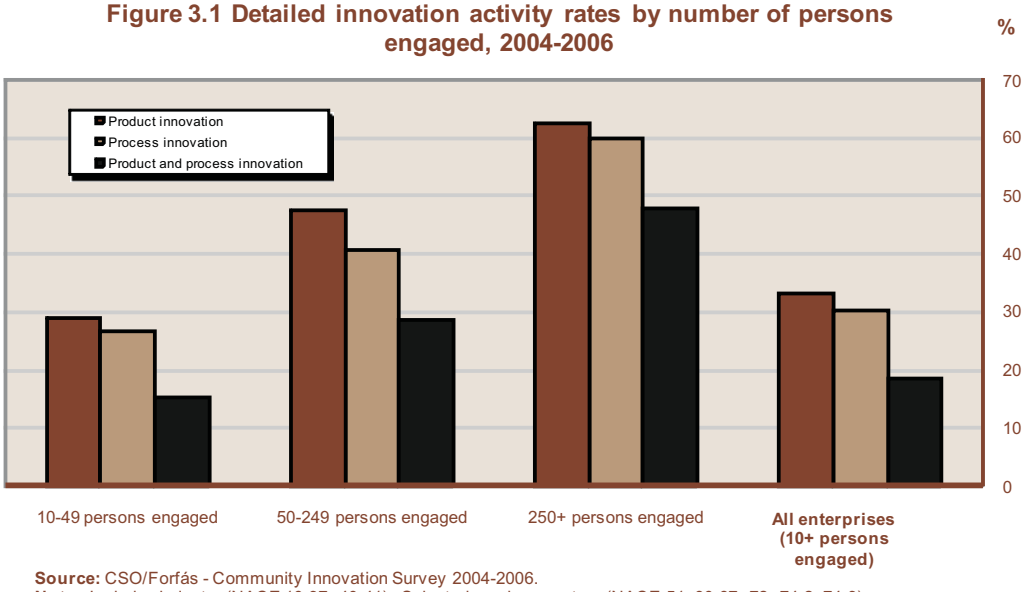
Enterprises active in innovation can be engaged in product innovations, process innovations or both product and process innovations. In addition, some enterprises had ongoing or abandoned innovation activities.

Innovation Types

In the period 2004 to 2006 inclusive, a third of all enterprises with ten or more persons engaged were engaged in product innovations, 30% of enterprises were engaged in process innovations and 2% had ongoing or abandoned innovation activities. Almost 19% of all enterprises were engaged in both product and process innovations.

Product and process innovation rates tended to be higher as the size of the enterprise increased with large enterprises more than twice as likely to be engaged in product or process innovation activities than small enterprises. For example, while 29% of small enterprises were product innovators, over 62% of large enterprises were engaged in product innovations. Similarly, while 27% of small enterprises engaged in process innovations, 60% of large enterprises were process innovators. *See Figure 3.1* and *Table 3.1.*

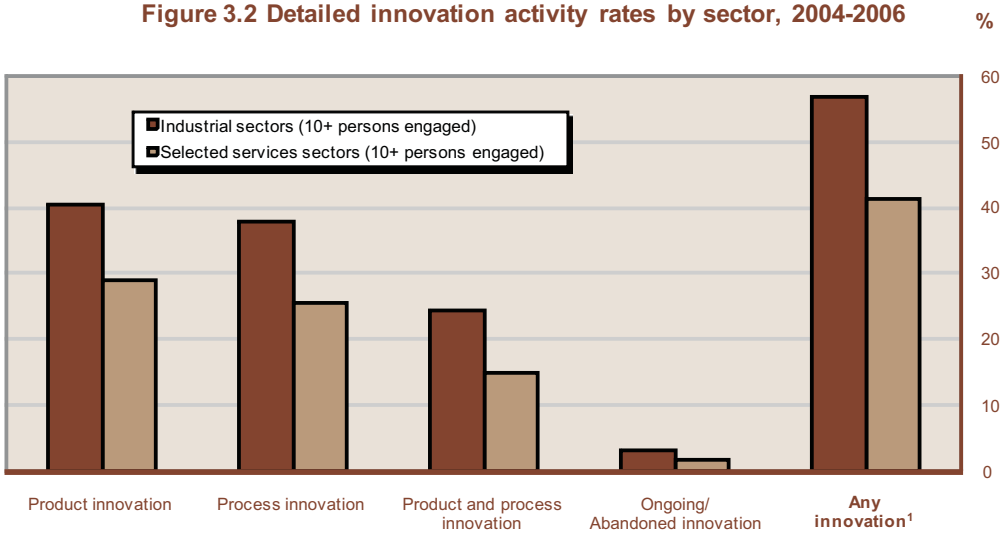
Figure 3.1 Detailed innovation activity rates by number of persons engaged, 2004-2006



Source: CSO/Forfás - Community Innovation Survey 2004-2006.
Note: Includes industry (NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-67, 72, 74.2, 74.3).

Industrial enterprises had higher rates of product innovation, process innovation and combined product and process innovation compared to selected services sector enterprises. More than 40% of all industrial enterprises were engaged in product innovation compared to 29% of selected services sector enterprises while almost 38% of industrial enterprises were actively engaged in process innovations compared to 26% of selected services enterprises. *See Figure 3.2 and Table 3.1.*

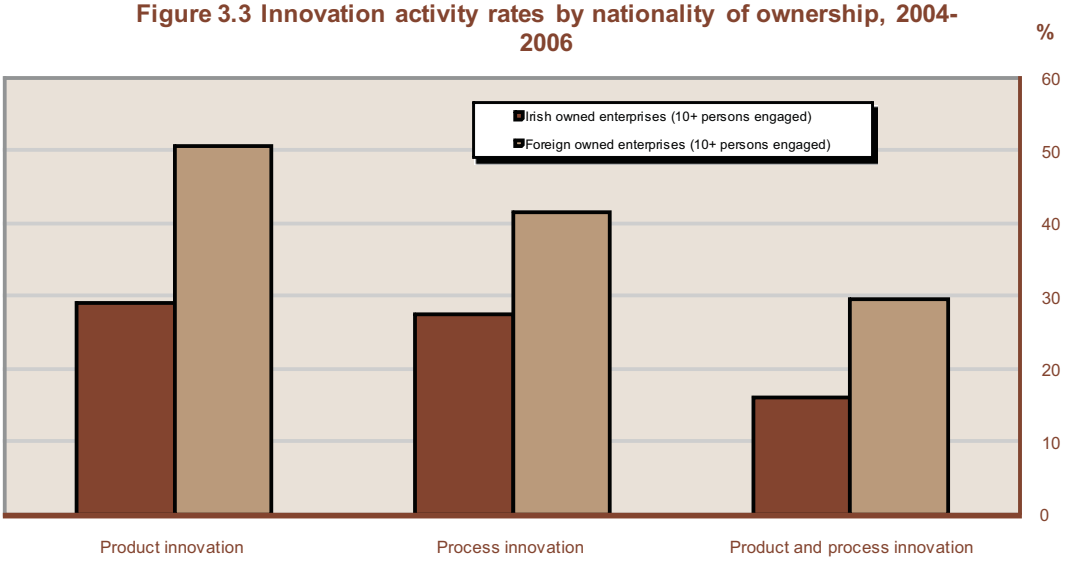
Figure 3.2 Detailed innovation activity rates by sector, 2004-2006



Source: CSO/Forfás - Community Innovation Survey 2004-2006.
[1] Respondents could engage in more than one type of innovation, hence the sum of the categories does not equal the total.
Note: Includes industry (NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-67, 72, 74.2, 74.3).

Foreign owned enterprises were more likely to be engaged in product innovations, process innovations or both product and process innovations. Over 50% of foreign owned enterprises were engaged in product innovations compared to 29% of Irish owned enterprises. In addition, 42% of foreign owned enterprises were engaged in process innovations compared to 28% of Irish owned enterprises. *See Figure 3.3 and Table 3.1.*

Figure 3.3 Innovation activity rates by nationality of ownership, 2004-2006



Source: CSO/Forfás - Community Innovation Survey 2004-2006.
Note: Includes industry (NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-67, 72, 74.2, 74.3).

Table 3.1 Detailed innovation activity rates by nationality of ownership, sector and number of persons engaged, 2004 - 2006

%

	Nationality of ownership		Sector of activity		Number of persons engaged			All enterprises (10+ persons engaged)
	Irish (10+ persons engaged)	Foreign (10+ persons engaged)	Industrial sectors (10+ persons engaged)	Selected services sectors (10+ persons engaged)	10-49	50-249	250+	
Product innovation	29.2	50.6	40.4	28.9	29.0	47.7	62.4	**33.3**
Process innovation	27.6	41.6	37.8	25.6	26.7	40.6	60.0	**30.3**
Product and process innovation	16.0	29.7	24.5	15.0	15.2	28.7	47.8	**18.7**
Ongoing/Abandoned innovation	2.3	2.1	3.0	1.8	2.3	2.8	0.0	**2.3**
Any innovation[1]	**43.0**	**64.7**	**56.7**	**41.3**	**42.7**	**62.5**	**74.9**	**47.2**

Source: CSO/Forfás - Community Innovation Survey 2004 - 2006.

[1] Respondents could engage in more than one type of innovation, hence the sum of the categories does not equal the total.

Note: Includes industry(NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-67, 72, 74.2 and 74.3). See Appendix 2 for NACE classifications.

Chapter 4

Innovation: Detailed Types and Development

Introduction

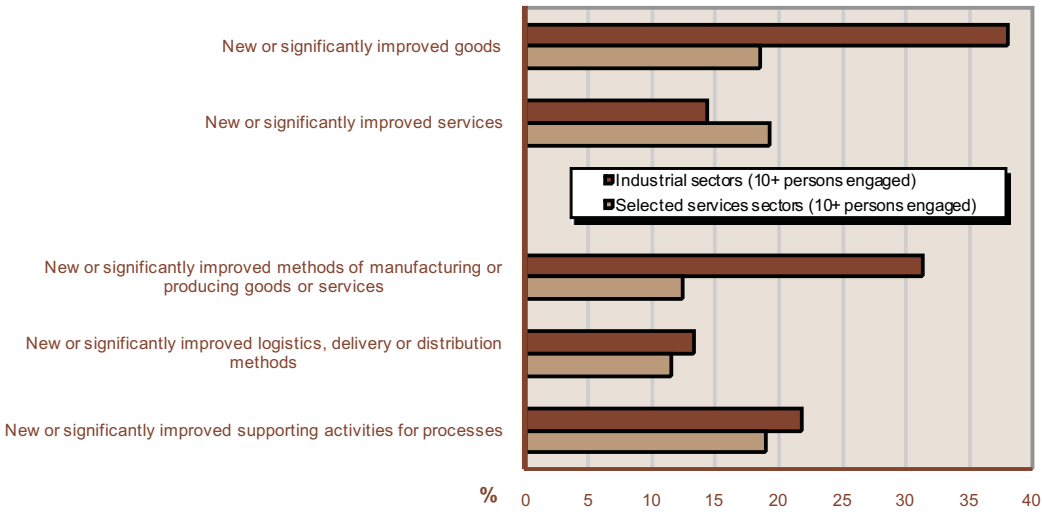
Enterprises who were product innovators could be engaged in developing new or significantly improved goods along with developing new or significantly improved services. Process innovations include developing new or significantly improved methods of manufacturing or producing goods or services; new or significantly improved logistics, delivery or distribution methods; along with new or significantly improved supporting activities for processes. While engaged in these product or process innovations, enterprises could develop these activities by themselves, in collaboration with others or have them developed by third parties.

Product and Process Innovation Rates

A quarter of all enterprises indicated that they were engaged in developing new or significantly improved goods while almost a fifth of enterprises indicated that they were engaged in developing new or significantly improved services as a part of their product innovations. Again, a fifth of all enterprises were engaged in developing new or significantly improved supporting activities for processes. *See Table 4.1.*

Just over 38% of all enterprises in the industrial sector developed new or significantly improved goods compared to 19% of enterprises in the selected services sector while more enterprises in selected services sectors developed new or significantly improved services compared to enterprises in the industrial sector. Close to one in three industrial enterprises developed new or significantly improved methods of manufacturing or producing goods or services compared to one in eight selected services sector enterprises. *See Figure 4.1 and Table 4.1.*

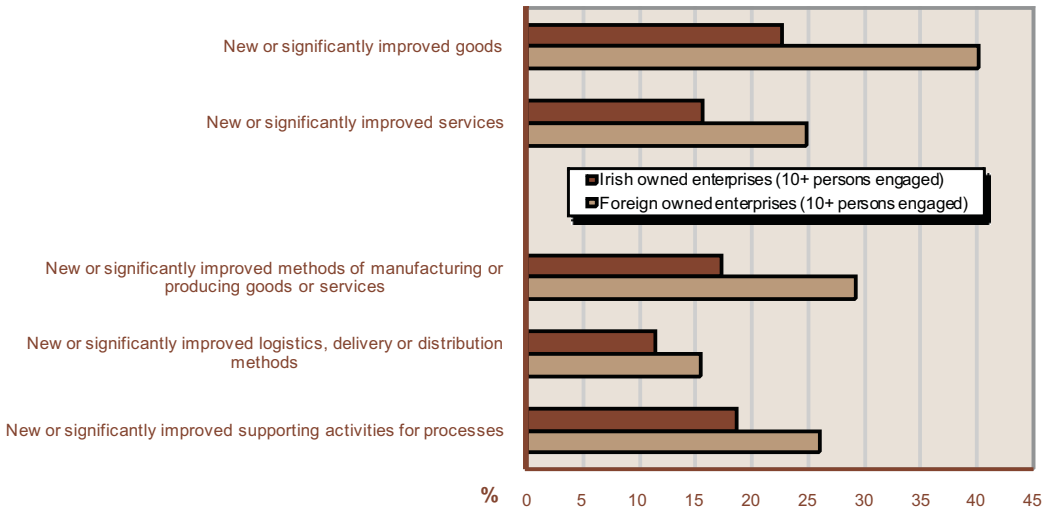
Figure 4.1 Detailed product and process innovation activity rates by sector, 2004 - 2006



Source: CSO/Forfás - Community Innovation Survey 2004-2006.
Note: Includes industry (NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-67, 72, 74.2, 74.3).

More than 40% of all foreign owned enterprises were engaged in developing new or significantly improved goods as part of their product innovations over the period 2004-2006 inclusive compared to 23% of Irish owned enterprises. Foreign owned enterprises were also more likely to be engaged in either of the three types of process innovations. *See Figure 4.2 and Table 4.1.*

Figure 4.2 Detailed product and process innovation activity rates by nationality of ownership, 2004 - 2006

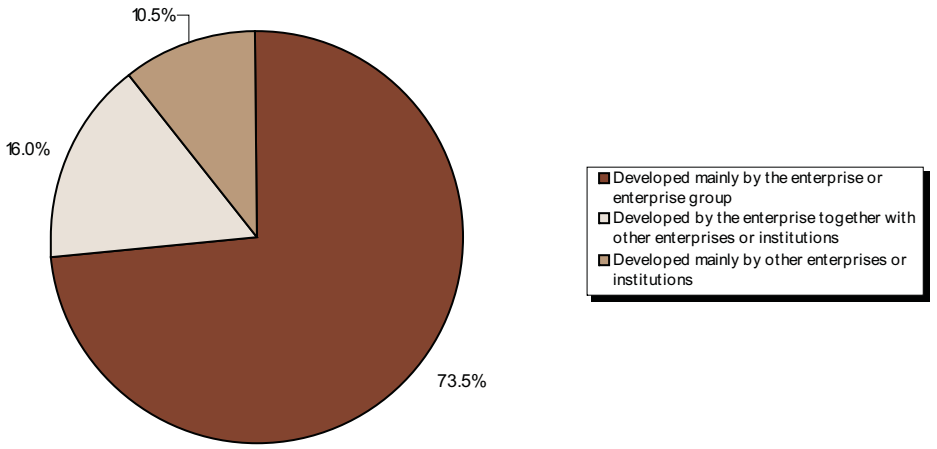


Source: CSO/Forfás - Community Innovation Survey 2004-2006.
Note: Includes industry (NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-67, 72, 74.2, 74.3).

Developers of Product and Process Innovations

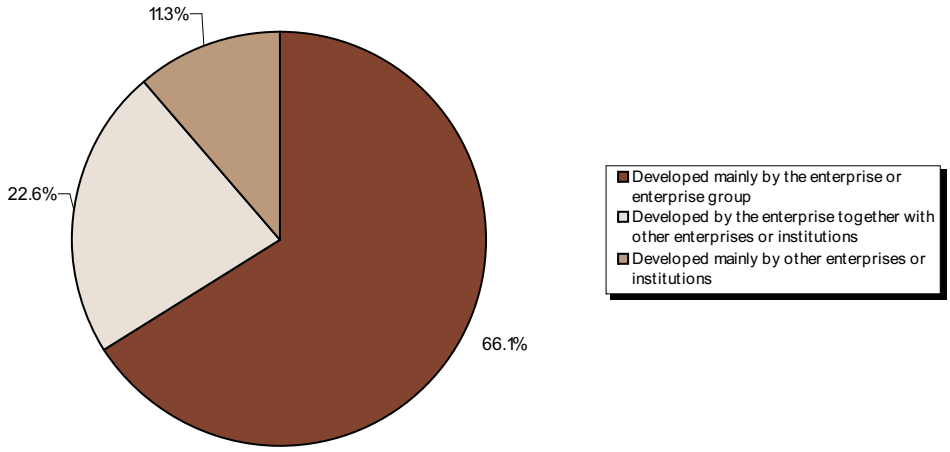
Three quarters of all enterprises who were engaged in product innovations developed these innovations in their own enterprises or within their own enterprise group. Similarly, 66% of all enterprises engaged in process innovations developed such innovations within their own enterprise or enterprise group. Smaller enterprises were generally more likely to use product and process innovations which were developed by other enterprises or institutes. *See Figure 4.3, Figure 4.4 and Table 4.2.*

Figure 4.3 Developers of product innovations for all enterprises (10+ persons engaged), 2004 - 2006



Source: CSO/Forfás - Community Innovation Survey 2004-2006.
Note: Includes industry (NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-67, 72, 74.2, 74.3).

Figure 4.4 Developers of process innovations for all enterprises (10+ persons engaged), 2004 - 2006



Source: CSO/Forfás - Community Innovation Survey 2004-2006.
Note: Includes industry (NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-67, 72, 74.2, 74.3).

Almost 79% of industrial enterprises developed their product innovations within their own enterprise or enterprise group compared to 69% of enterprises in selected services sectors. Just under 72% of enterprises in the industrial sector developed their process innovations in their own enterprise or enterprise group compared to 61% of selected services sector enterprises. Enterprises in selected services sectors were more likely to have other enterprises or institutions develop both their product innovations and their process innovations when compared to industrial enterprises. *See Table 4.2.*

Just under 72% of Irish owned enterprises developed their product innovations within their own enterprise or enterprise group compared to 78% of foreign owned enterprises. Almost 63% of Irish owned enterprises developed their process innovations within their own enterprise or enterprise group while three-quarters of foreign owned enterprises developed their process innovations in the same manner. *See Table 4.2.*

Table 4.1 Detailed product and process innovation activity rates by nationality of ownership, sector and number of persons engaged, 2004- 2006

%

	Nationality of ownership		Sector of activity		Number of persons engaged			All enterprises (10+ persons engaged)
	Irish (10+ persons engaged)	Foreign (10+ persons engaged)	Industrial sectors (10+ persons engaged)	Selected services sectors (10+ persons engaged)	10-49	50-249	250+	
Product innovations:								
New or significantly improved goods	22.6	40.1	38.1	18.5	21.9	39.4	52.9	**26.0**
New or significantly improved services	15.5	24.8	14.4	19.2	15.9	20.8	32.5	**17.3**
Any product innovation[1]	**29.2**	**50.6**	**40.4**	**28.9**	**29.0**	**47.7**	**62.4**	**33.3**
Process innovations:								
New or significantly improved methods of manufacturing or producing goods or services	17.4	29.2	31.3	12.4	17.0	27.2	43.4	**19.7**
New or significantly improved logistics, delivery or distribution methods	11.4	15.4	13.3	11.5	10.7	15.7	28.8	**12.2**
New or significantly improved supporting activities for processes	18.6	26.1	21.8	19.0	17.7	25.9	42.7	**20.0**
Any process innovation[2]	**27.6**	**41.6**	**37.8**	**25.6**	**26.7**	**40.6**	**60.0**	**30.3**
Any innovation	**43.0**	**64.7**	**56.7**	**41.3**	**42.7**	**62.5**	**74.9**	**47.2**

Source: CSO/Forfás - Community Innovation Survey 2004 - 2006.

[1] Respondents could engage in more than one type of product innovation, hence the sum of the categories does not equal the total.

[2] Respondents could engage in more than one type of process innovation, hence the sum of the categories does not equal the total.

Note: Includes industry(NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-67, 72, 74.2 and 74.3). See Appendix 2 for NACE classifications.

Table 4.2 Developers of product and process innovation activity rates by nationality of ownership, sector and number of persons engaged, 2004 - 2006

%

	Nationality of ownership		Sector of activity		Number of persons engaged			All enterprises (10+ persons engaged)
	Irish (10+ persons engaged)	Foreign (10+ persons engaged)	Industrial sectors (10+ persons engaged)	Selected services sectors (10+ persons engaged)	10-49	50-249	250+	
Product innovations:								
Developed mainly by the enterprise or enterprise group	71.8	77.5	78.6	69.1	71.5	75.9	84.2	**73.5**
Developed by the enterprise together with other enterprises or institutions	15.5	17.4	15.4	16.6	15.8	17.7	13.1	**16.0**
Developed mainly by other enterprises or institutions	12.7	5.1	6.0	14.4	12.7	6.4	2.7	**10.5**
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Process innovations:								
Developed mainly by the enterprise or enterprise group	62.6	75.4	71.6	60.7	65.7	64.7	73.0	**66.1**
Developed by the enterprise together with other enterprises or institutions	23.6	20.0	20.8	24.4	21.2	26.9	23.0	**22.6**
Developed mainly by other enterprises or institutions	13.8	4.6	7.4	14.9	13.0	8.5	3.9	**11.3**
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: CSO/Forfás - Community Innovation Survey 2004 - 2006.

Note: Includes industry(NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-67, 72, 74.2 and 74.3). See Appendix 2 for NACE classifications.

Chapter 5

Innovation Turnover

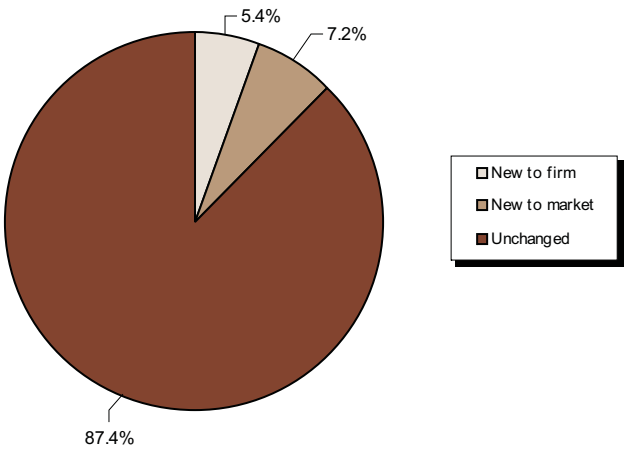
Introduction

Enterprises were asked to estimate how much of their total turnover was attributed to product innovations, separated into new to market innovations (a measure of novelty and creativity) and new to the firm innovations (those which were adopted by the firm but invented and created elsewhere).

Innovation Turnover

Almost 13% of the turnover of all active and non-active innovators in 2006 in the industrial and selected services sectors was as a result of product innovations over the period 2004 to 2006. Large enterprises attributed almost a tenth of their turnover in 2006 to new to market products. *See Figure 5.1 and Table 5.1.*

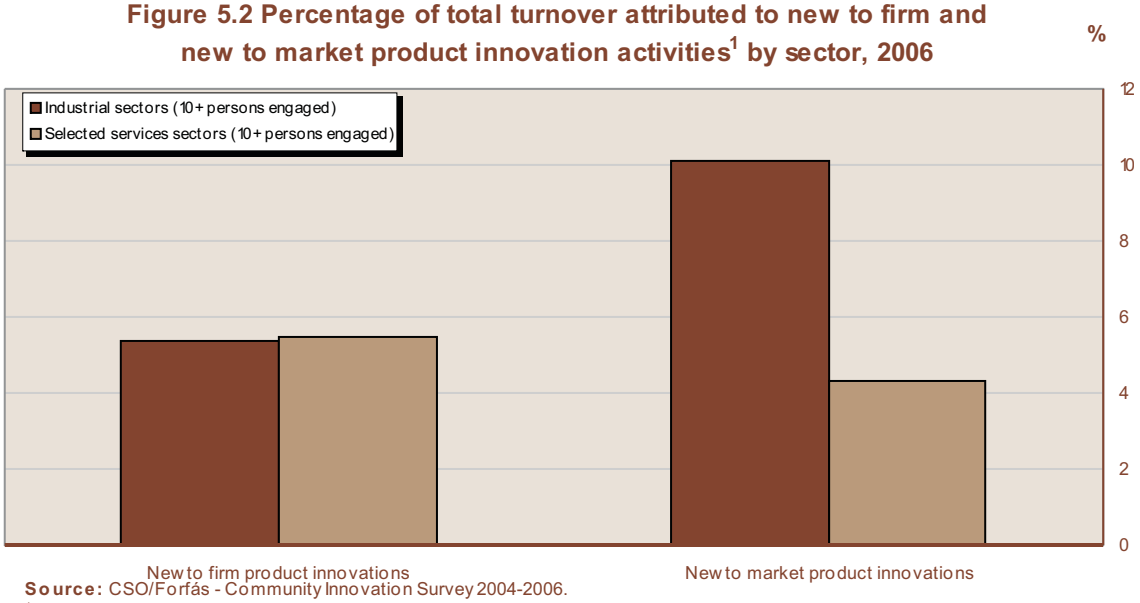
Figure 5.1 Percentage of total turnover attributed to product innovation activities[1] for all enterprises (10+ persons engaged), 2006



Source: CSO/Forfás - Community Innovation Survey 2004-2006.
[1] Product innovation activities during the period 2004-2006.
Note: Includes industry (NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-67, 72, 74.2, 74.3)

Industrial and selected services sector enterprises who were active and non-active innovators attributed the same amount (5.4% and 5.5% respectively) of their turnover to new to firm product innovations. Enterprises in industry, however, generated more than twice as much of their turnover from new to market product innovations when compared to enterprises in selected services sectors (10% compared to 4%). *See Figure 5.2 and Table 5.1.*

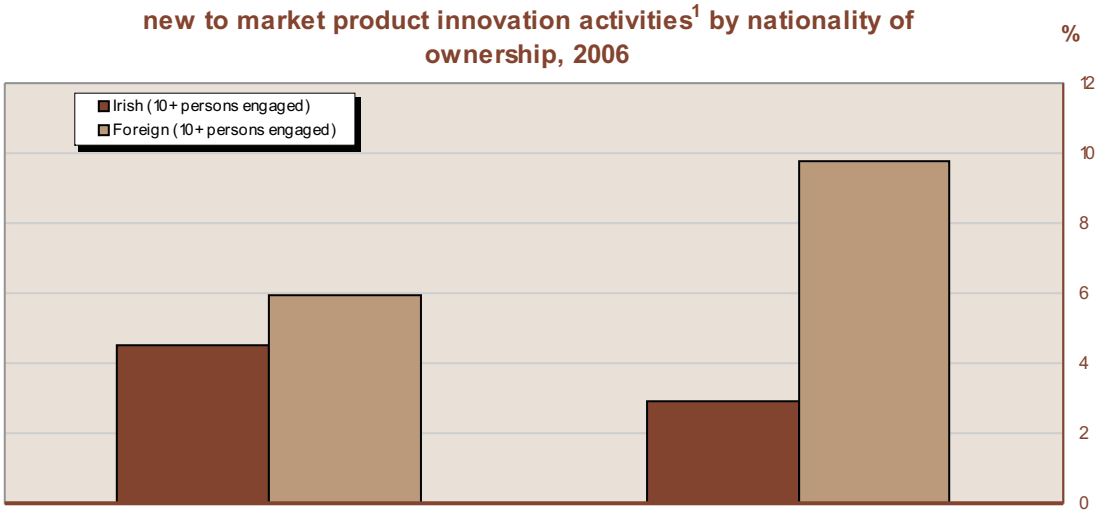
Figure 5.2 Percentage of total turnover attributed to new to firm and new to market product innovation activities[1] by sector, 2006



Source: CSO/Forfás - Community Innovation Survey 2004-2006.
[1]Product innovation activities during the period 2004-2006.
Note: Includes industry (NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-67, 72, 74.2, 74.3).

Irish owned and foreign owned active and non-active innovative enterprises generated relatively similar amounts of their turnover in 2006 from new to firm product innovations. Foreign owned enterprises however, generated more than three times as much of their turnover from new to market innovations when compared to Irish owned enterprises in the same period. *See Figure 5.3 and Table 5.1.*

Figure 5.3 Percentage of total turnover attributed to new to firm and new to market product innovation activities[1] by nationality of ownership, 2006



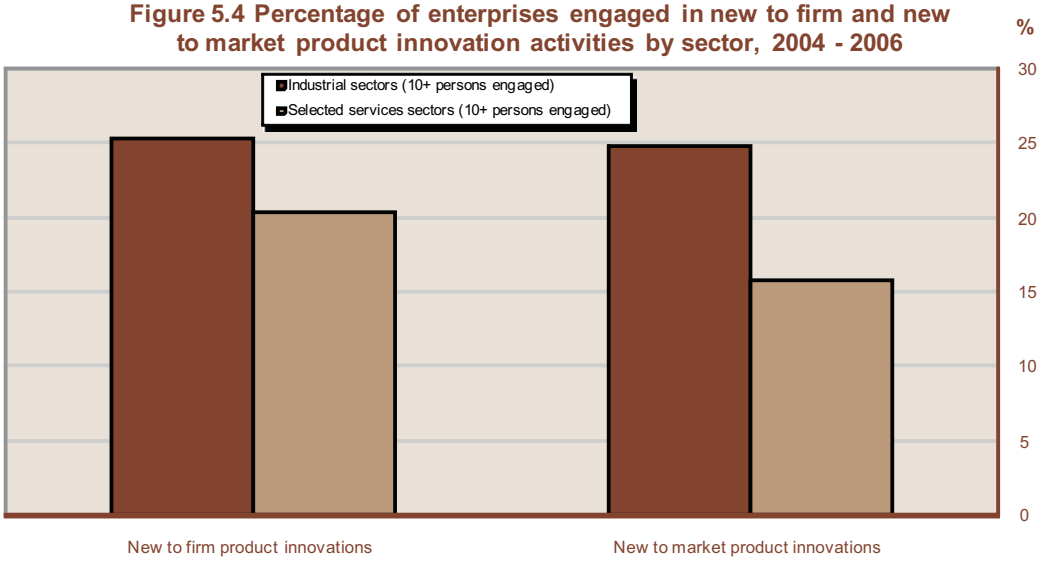
Source: CSO/Forfás - Community Innovation Survey 2004-2006.
[1]Product innovation activities during the period 2004-2006.
Note: Includes industry (NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-67, 72, 74.2, 74.3).

New to Firm and New to Market Product Innovations

A fifth of all enterprises with ten or more persons engaged had new to firm product innovations over the period 2004-2006 inclusive, which was very similar to the amount of enterprises engaged in new to market product innovations in the same period. *See Table 5.2.*

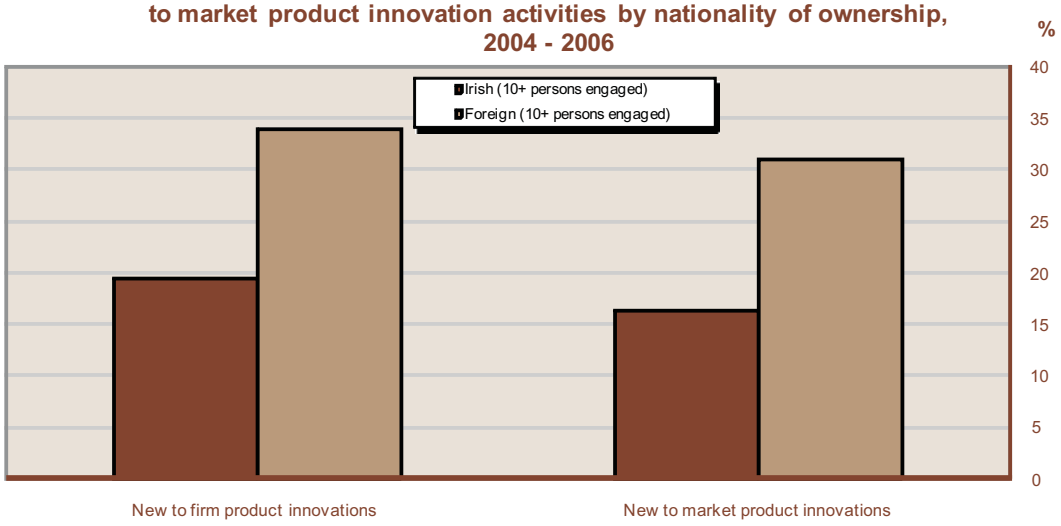
One in four industrial enterprises were engaged in new to firm product innovations compared to one in five selected services sector enterprises. Again, a quarter of all enterprises in the industrial sector were engaged in new to market product innovations compared to a sixth of enterprises in selected services sectors. *See Figure 5.4 and Table 5.2.*

Figure 5.4 Percentage of enterprises engaged in new to firm and new to market product innovation activities by sector, 2004 - 2006



Source: CSO/Forfás - Community Innovation Survey 2004-2006.
Note: Includes industry (NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-67, 72, 74.2, 74.3).

Figure 5.5 Percentage of enterprises engaged in new to firm and new to market product innovation activities by nationality of ownership, 2004 - 2006



Source: CSO/Forfás - Community Innovation Survey 2004-2006.
Note: Includes industry (NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-67, 72, 74.2, 74.3).

One third of all foreign owned enterprises were engaged in new to firm product innovations compared to one fifth of Irish owned enterprises while 31% of foreign owned enterprises were engaged in new to market product innovations compared to 16% of Irish owned enterprises. *See Figure 5.5 and Table 5.2.*

Table 5.1 Percentage of total turnover attributed to new to firm and new to market product innovation activities[1] by nationality of ownership, sector and number of persons engaged, 2006

%

	Nationality of ownership		Sector of activity		Number of persons engaged			All enterprises (10+ persons engaged)
	Irish (10+ persons engaged)	Foreign (10+ persons engaged)	Industrial sectors (10+ persons engaged)	Selected services sectors (10+ persons engaged)	10-49	50-249	250+	
Turnover:								
New to firm product innovations	4.5	6.0	5.4	5.5	3.0	5.3	6.5	**5.4**
New to market product innovations	2.9	9.7	10.1	4.3	2.8	6.1	9.5	**7.2**
Unchanged	92.6	84.3	84.5	90.2	94.2	88.5	84.0	**87.4**
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: CSO/Forfás - Community Innovation Survey 2004 - 2006.

[1] Product innovation activities during the period 2004-2006.

Note: Includes industry(NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-67, 72, 74.2 and 74.3). See Appendix 2 for NACE classifications.

Table 5.2 Percentage of all enterprises engaged in new to firm and new to market product innovation activities[1] by nationality of ownership, sector and number of persons engaged, 2004 - 2006

%

	Nationality of ownership		Sector of activity		Number of persons engaged			All enterprises (10+ persons engaged)
	Irish (10+ persons engaged)	Foreign (10+ persons engaged)	Industrial sectors (10+ persons engaged)	Selected services sectors (10+ persons engaged)	10-49	50-249	250+	
New to firm product innovations	19.4	33.9	25.3	20.3	19.6	30.5	41.7	**22.2**
New to market product innovations	16.4	31.0	24.8	15.8	16.2	29.4	38.6	**19.3**

Source: CSO/Forfás - Community Innovation Survey 2004 - 2006.

[1] Product innovation activities during the period 2004-2006.

Note: Includes industry(NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-67, 72, 74.2 and 74.3). See Appendix 2 for NACE classifications.

Chapter 6

Innovation Expenditure

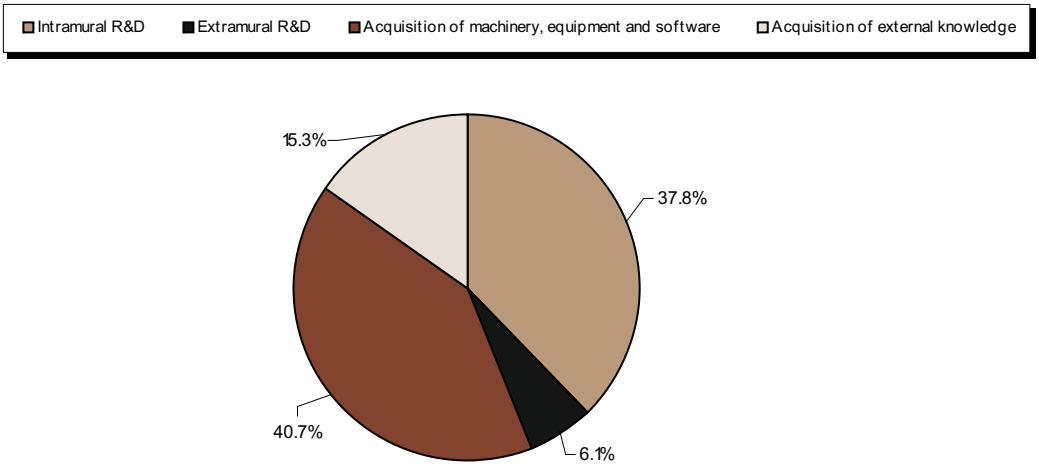
Introduction

Enterprises were asked if they were active in any of the following categories and to estimate innovation spending on each of those categories in 2006: in-house R&D (intramural R&D); acquisition of R&D (extramural R&D); acquisition of machinery, equipment and software; acquisition of other external knowledge. More detailed information regarding expenditure by enterprises on R&D activities is available from the Business Expenditure on Research and Development (BERD) survey.

Innovation Expenditure

Total spending on innovation activities across the Irish economy is estimated to have been €4.6bn in 2006. Just under 41% of all this expenditure was for the acquisition of machinery, equipment and software, on which €1.9bn was spent in 2006. Almost 38% of expenditure or €1.7bn was spent on intramural R&D. Acquisition of external knowledge accounted for 15% of expenditure while extramural R&D spend accounted for 6%. *See Figure 6.1 and Table 6.1.*

Figure 6.1 Percentage share of innovation expenditure by type of expenditure for all enterprises (10+ persons engaged), 2006

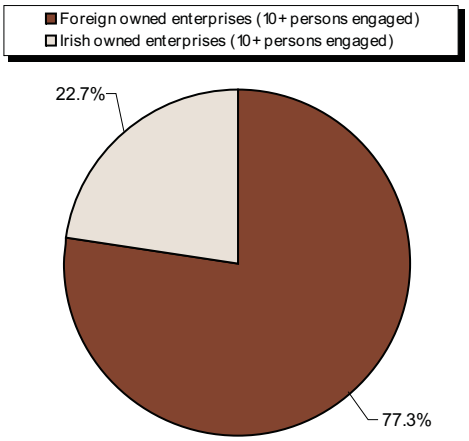


Source: CSO/Forfás - Community Innovation Survey 2004-2006.
Note: Includes industry (NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-67, 72, 74.2, 74.3).

The total spend by industrial enterprises on innovation activities was almost €2.7bn in 2006 while the total spend in selected services sectors was €1.9bn. Industrial enterprises spent €1bn on machinery, equipment and software, €920m on intramural R&D, €550m on acquisition of external knowledge and €195m on extramural R&D. Selected services sectors had a similar spend pattern and spent €860m on machinery and equipment, €805m on intramural R&D, €150m on acquisition of external knowledge and €85m on extramural R&D. *See Table 6.1.*

Irish owned enterprises spent more than €1bn on innovation related activities in 2006 while foreign owned enterprises spent €3.5bn in the same period. Foreign owned enterprises were therefore responsible for over 77% of all innovation-related expenditure in 2006. Irish owned enterprises spent €395m on intramural R&D in 2006 compared to foreign owned enterprises who spent €1.3bn on intramural R&D in the period. *See Figure 6.2 and Table 6.1*

Figure 6.2 Share of total innovation expenditure by nationality of ownership, 2006



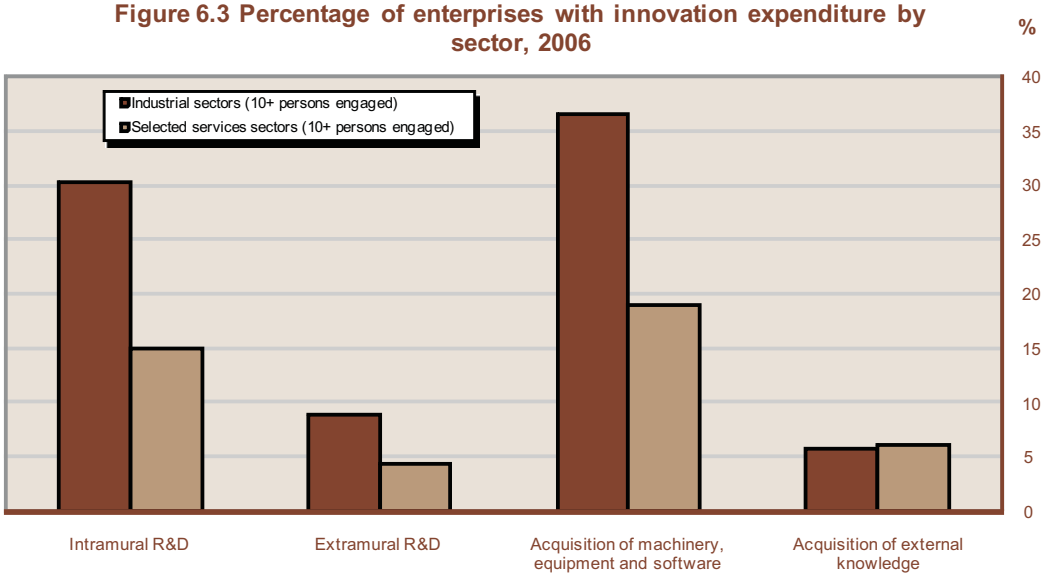
Source: CSO/Forfás - Community Innovation Survey 2004-2006.
Note: Includes industry (NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-67, 72, 74.2, 74.3).

Enterprises Engaged in Innovation Expenditure

One in three enterprises had innovation expenditure in 2006. More than 29% of all small enterprises, almost 50% of medium sized enterprises and almost 68% of all large enterprises had such expenditure in the period. *See Table 6.2.*

Almost 46% of all industrial enterprises had innovation related expenditure in 2006 compared to almost 27% of enterprises in selected services sectors. Just under 37% of enterprises in the industrial sector purchased machinery, equipment or software related to innovation activities compared to 19% of selected services sector enterprises. *See Figure 6.3 and Table 6.2.*

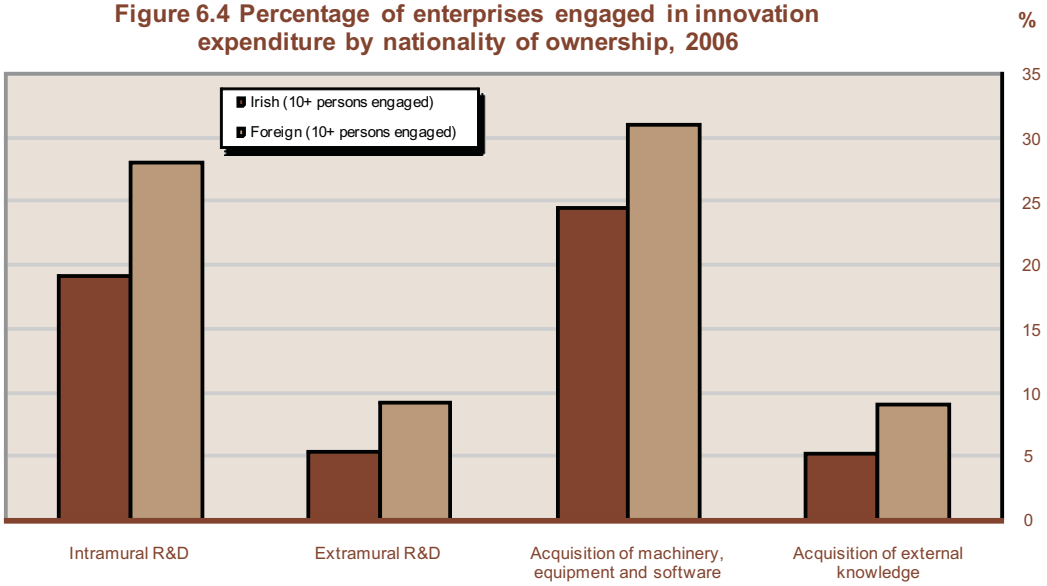
Figure 6.3 Percentage of enterprises with innovation expenditure by sector, 2006



Source: CSO/Forfás - Community Innovation Survey 2004-2006.
Note: Includes industry (NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-67, 72, 74.2, 74.3).

Almost 32% of Irish owned enterprises engaged in innovation related expenditure in 2006 compared to 44% of foreign owned enterprises. One in four Irish owned enterprises purchased machinery, equipment or software related to innovation activities in the period while close to one in three foreign owned enterprises made such purchases. *See Figure 6.4 and Table 6.2.*

Figure 6.4 Percentage of enterprises engaged in innovation expenditure by nationality of ownership, 2006



Source: CSO/Forfás - Community Innovation Survey 2004-2006.
Note: Includes industry (NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-67, 72, 74.2, 74.3).

Table 6.1 Innovation expenditure by nationality of ownership, sector and number of persons engaged, 2006

€m

	Nationality of ownership		Sector of activity		Number of persons engaged			All enterprises (10+ persons engaged)
	Irish (10+ persons engaged)	Foreign (10+ persons engaged)	Industrial sectors (10+ persons engaged)	Selected services sectors (10+ persons engaged)	10-49	50-249	250+	
Intramural R&D	395.0	1,327.5	917.7	804.7	266.2	434.5	1,021.7	**1,722.5**
Extramural R&D	53.8	226.0	194.6	85.2	18.9	98.9	162.0	**279.8**
Acquisition of machinery, equipment and software	547.0	1,309.7	999.4	857.3	197.4	532.5	1,126.7	**1,856.7**
Acquisition of external knowledge	39.1	660.2	549.0	150.3	22.1	264.9	412.3	**699.3**
Total innovation expenditure	**1,034.8**	**3,523.4**	**2,660.7**	**1,897.5**	**504.7**	**1,330.8**	**2,722.7**	**4,558.2**

Source: CSO/Forfás - Community Innovation Survey 2004 - 2006.

Note: Includes industry(NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-67, 72, 74.2 and 74.3). See Appendix 2 for NACE classifications.

Table 6.2 Percentage of all enterprises engaged in innovation expenditure by nationality of ownership, sector and number of persons engaged, 2006

%

	Nationality of ownership		Sector of activity		Number of persons engaged			All enterprises (10+ persons engaged)
	Irish (10+ persons engaged)	Foreign (10+ persons engaged)	Industrial sectors (10+ persons engaged)	Selected services sectors (10+ persons engaged)	10-49	50-249	250+	
Engaged in:								
Intramural R&D	19.1	28.0	30.3	14.9	16.5	34.2	53.2	**20.8**
Extramural R&D	5.4	9.2	8.9	4.4	4.6	10.7	18.0	**6.1**
Acquisition of machinery, equipment and software	24..4	31.0	36.6	18.9	21.8	38.3	51.5	**25.7**
Acquisition of external knowledge	5.3	9.0	**5.7**	**6.2**	5.0	8.3	16.3	**6.0**
Total[1]	**31.7**	**43.6**	**45.9**	**26.7**	**29.2**	**49.7**	**67.8**	**34.1**

Source: CSO/Forfás - Community Innovation Survey 2004 - 2006.

[1] Respondents could engage in more than one innovation expenditure category, hence the sum of the categories does not equal the total.

Note: Includes industry(NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-67, 72, 74.2 and 74.3). See Appendix 2 for NACE classifications.

Chapter 7

Innovation Cooperation

Introduction

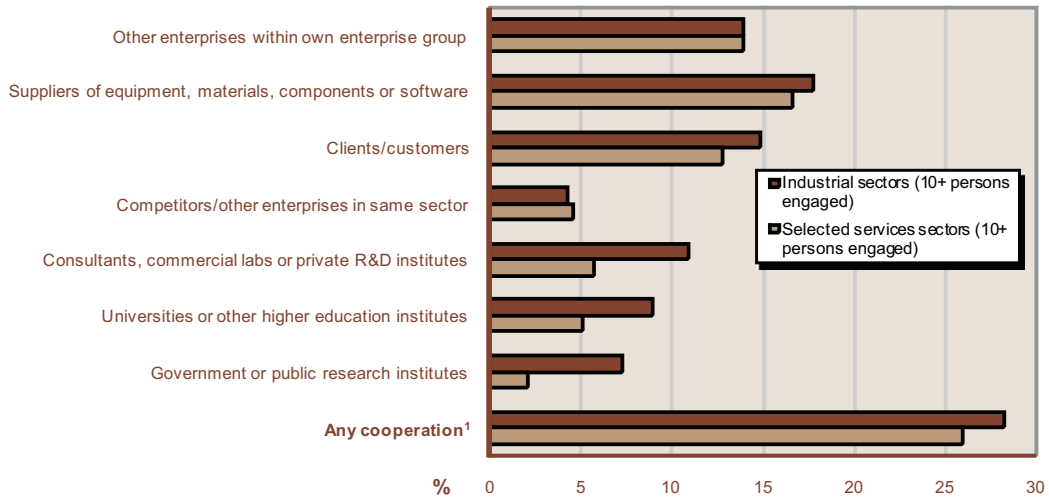
In developing new to market or new to firm product and process innovations, firms can develop these within their own firm or within their enterprise group. Alternatively, firms may engage in innovation cooperation with other sources to help develop these innovations.

Innovation Cooperation Partners

More than a quarter of all innovation active enterprises indicated that they engaged in some cooperation activity when developing their innovations. More than half (54%) of all large innovation active enterprises were involved in innovation partnerships compared to 22% of small enterprises. Suppliers of equipment, materials, components or software were the most commonly cited innovation partners, with over 17% of all enterprises having innovation cooperation with these suppliers. *See Table 7.1.*

Just over 28% of industrial enterprises who were innovation active indicated that they were engaged in innovation cooperation compared to 26% of selected services sector enterprises. Innovation cooperation partnerships with suppliers of equipment, materials, components or software were the most likely innovation partnerships in both industry (18%) and selected services sectors (17%). *See Figure 7.1 and Table 7.1.*

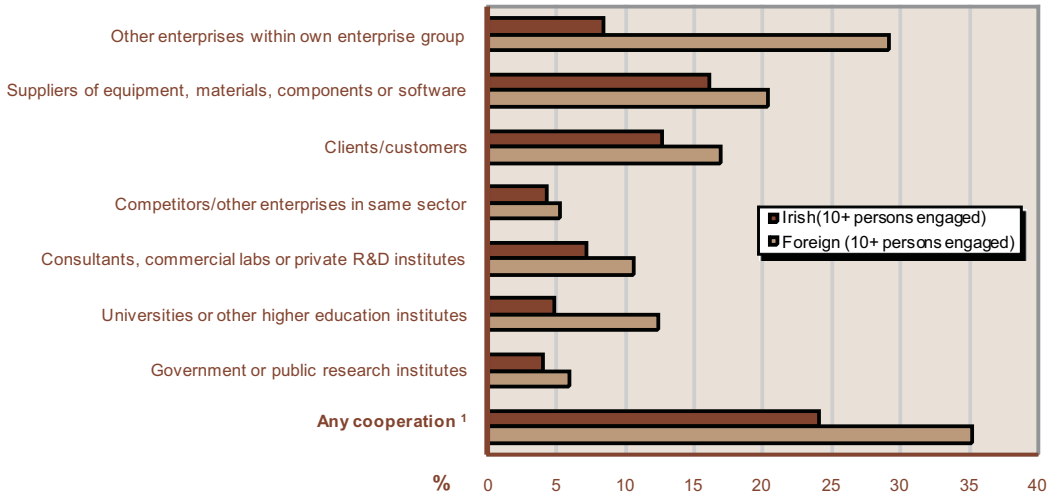
Figure 7.1 Type of cooperation partner for innovative enterprises by sector, 2004 - 2006



Source: CSO/Forfás - Community Innovation Survey 2004-2006.
[1] Respondents could engage in more than one innovation cooperation category, hence the sum of the categories does not equal the total.
Note: Includes industry (NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-67, 72, 74.2, 74.3).

Almost a quarter of all Irish owned enterprises engaged in innovation cooperation in the period 2004-2006 inclusive, while more than a third of all foreign owned enterprises engaged in such innovation cooperation. Foreign owned enterprises were more likely to cooperate in all types of innovation cooperation categories when compared to their Irish counterparts. *See Figure 7.2 and Table 7.1.*

Figure 7.2 Type of cooperation partner for innovative enterprises by nationality of ownership, 2004 - 2006

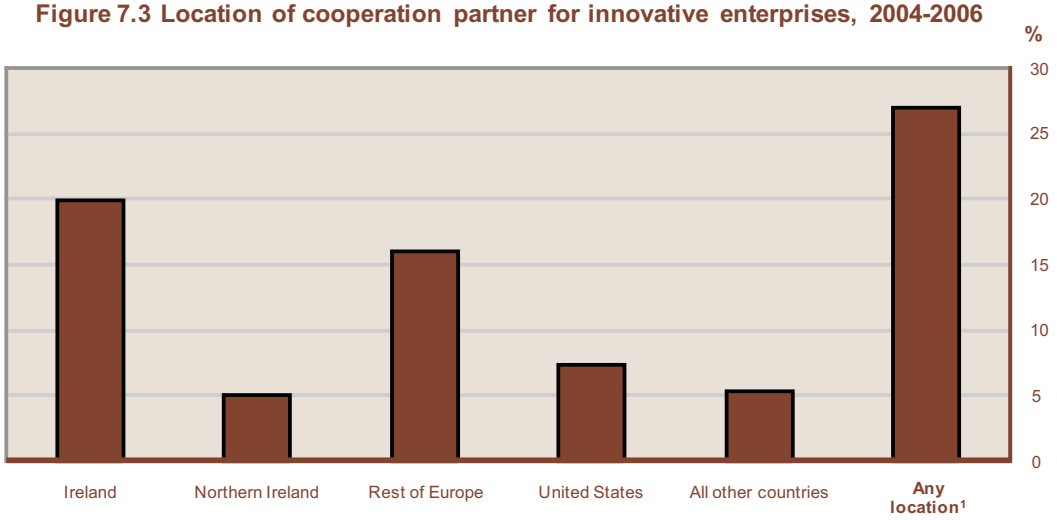


Source: CSO/Forfás - Community Innovation Survey 2004-2006.
[1] Respondents could engage in more than one innovation cooperation category, hence the sum of the categories does not equal the total.
Note: Includes industry (NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-67, 72, 74.2, 74.3).

Innovation Cooperation Locations

A fifth of all enterprises were engaged in innovation cooperation with partners who were located in Ireland, compared to 16% of enterprises who were engaged with partners in the Rest of Europe. *See Figure 7.3 and Table 7.2.*

Figure 7.3 Location of cooperation partner for innovative enterprises, 2004-2006

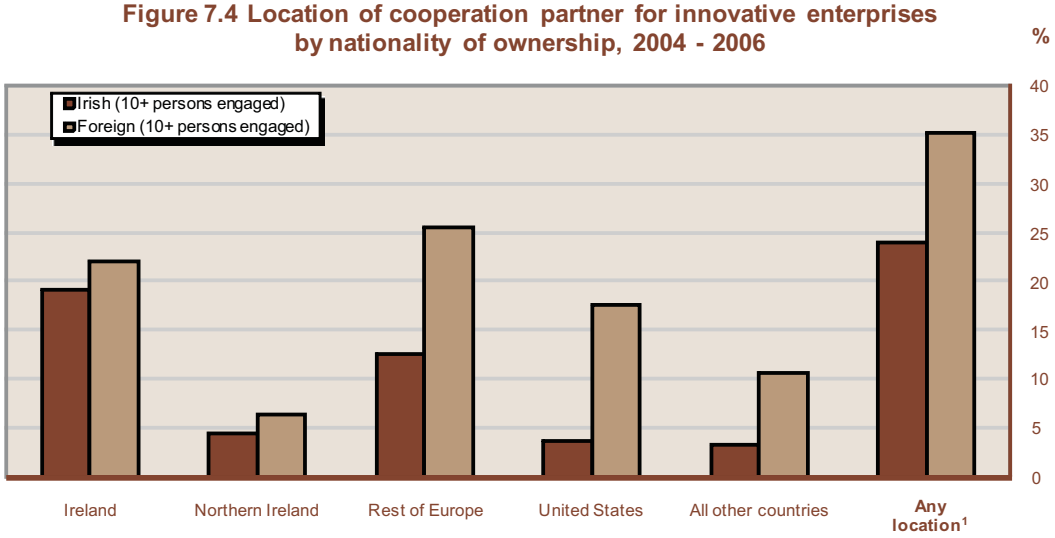


Source: CSO/Forfás - Community Innovation Survey 2004-2006
[1] Respondents could be engaged in more than one innovation cooperation category in each location, hence the sum of the categories does not equal the total.
Note: Includes industry (NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-67, 72, 74.2, 74.3).

In both the industrial and selected services sectors, a fifth of all enterprises engaged in innovation cooperation with innovation partners that were located in Ireland. Almost 18% of industrial enterprises were engaged in innovation cooperation with partners in the Rest of Europe compared to 15% of selected services sector enterprises. *See Table 7.2.*

Just over 19% of Irish owned enterprises were engaged in innovation cooperation with enterprises located in Ireland while almost 13% of Irish enterprises cooperated with partners located in the Rest of Europe. Almost 26% of all foreign owned enterprises were engaged in innovation cooperation with enterprises located in the Rest of Europe while some 22% cooperated with partners in Ireland. *See Figure 7.4 and Table 7.2.*

Figure 7.4 Location of cooperation partner for innovative enterprises by nationality of ownership, 2004 - 2006



Source: CSO/Forfás - Community Innovation Survey 2004-2006.
[1] Respondents could be engaged in more than one innovation cooperation category in each location, hence the sum of the categories does not equal the total.
Note: Includes industry (NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-67, 72, 74.2, 74.3).

Table 7.1 Type of cooperation partner for innovative enterprises by nationality of ownership, sector and number of persons engaged, 2004 - 2006

%

	Nationality of ownership		Sector of activity		Number of persons engaged			All enterprises (10+ persons engaged)
	Irish (10+ persons engaged)	Foreign (10+ persons engaged)	Industrial sectors (10+ persons engaged)	Selected services sectors (10+ persons engaged)	10-49	50-249	250+	
Other enterprises within own enterprise group	8.3	29.2	13.9	13.9	10.0	19.7	38.9	**13.9**
Suppliers of equipment, materials, components or software	16.0	20.3	17.8	16.6	13.7	24.4	32.1	**17.2**
Clients/customers	12.6	16.9	14.9	12.8	11.6	19.3	19.5	**13.7**
Competitors/other enterprises in same sector	4.2	5.2	4.2	4.6	4.1	5.6	4.5	**4.4**
Consultants, commercial labs or private R&D institutes	7.2	10.6	10.9	57.0	5.9	13.2	16.7	**8.1**
Universities or other higher education institutes	4.8	12.4	8.9	5.1	4.3	9.7	26.7	**6.8**
Government or public research institutes	3.9	5.9	7.3	2.1	3.0	7.5	11.8	**4.5**
Any cooperation[1]	**24.0**	**35.2**	**28.3**	**25.9**	**22.1**	**35.7**	**53.8**	**27.0**

Source: CSO/Forfás - Community Innovation Survey 2004 - 2006.

[1] Respondents could engage in more than one innovation cooperation category, hence the sum of the categories does not equal the total.

Note: Includes industry(NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-67, 72, 74.2 and 74.3). See Appendix 2 for NACE classifications.

Table 7.2 Location of cooperation partner for innovative enterprises by nationality of ownership, sector and number of persons engaged, 2004 - 2006

%

	Nationality of ownership		Sector of activity		Number of persons engaged			All enterprises (10+ persons engaged)
	Irish (10+ persons engaged)	Foreign (10+ persons engaged)	Industrial sectors (10+ persons engaged)	Selected services sectors (10+ persons engaged)	10-49	50-249	250+	
Ireland	19.2	22.0	21.0	19.1	16.1	26.7	41.6	**20.0**
Northern Ireland	4.5	6.4	5.1	5.0	4.8	4.8	8.6	**5.0**
Rest of Europe	12.6	25.6	17.6	14.7	12.3	22.9	35.7	**16.0**
United States	3.7	17.5	6.8	7.9	4.9	10.4	25.8	**7.4**
All other countries	3.3	10.6	4.6	5.8	4.3	7.2	10.0	**5.3**
Any location[1]	**24.0**	**35.2**	**28.3**	**25.9**	**22.1**	**35.7**	**53.8**	**27.0**

Source: CSO/Forfás - Community Innovation Survey 2004 - 2006.

[1] Respondents could be engaged in more than one innovation cooperation category in each location, hence the sum of the categories does not equal the total.

Note: Includes industry(NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-67, 72, 74.2 and 74.3). See Appendix 2 for NACE classifications.

Chapter 8

Barriers to Innovation

Introduction

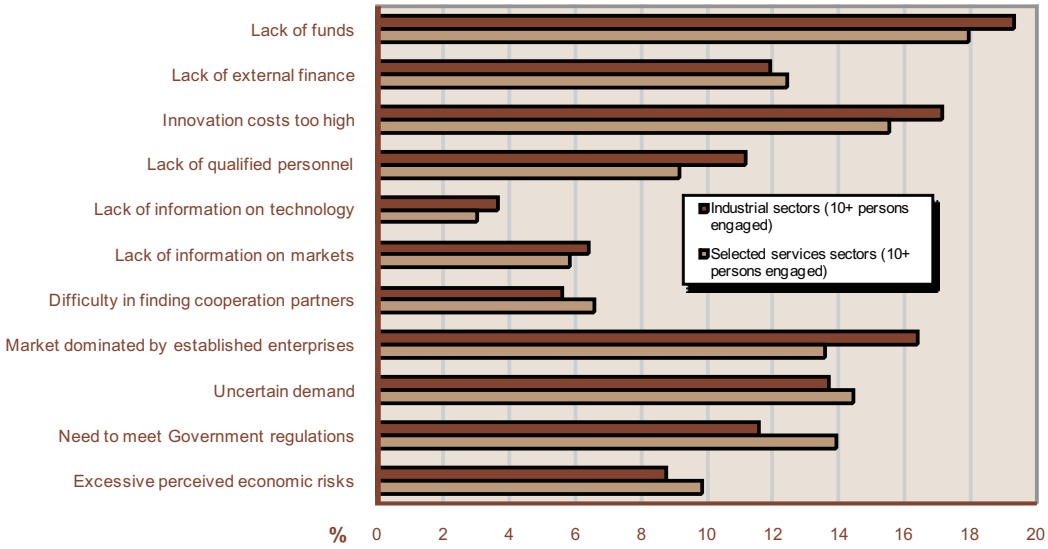
A number of factors which might have curtailed innovation activities were listed in the survey and enterprises were asked to rank each of the factors as being of high, medium, low or no importance. Enterprises were also asked to rank reasons why they did not innovate over the period. Results are shown for factors and reasons that enterprises indicated as being of high importance.

Barriers to Innovation

Those enterprises that were both innovative and non-innovative indicated that the three largest hampering factors were lack of funds, high costs and markets that were dominated by established enterprises. Almost 19% of innovative enterprises indicated that lack of funds was a highly important factor hampering innovation compared to 13% of non-innovative enterprises. In excess of 16% of innovation active firms cited high costs as a high hampering factor. *See Table 8.1.*

The largest hampering factor for innovative enterprises in industry was a lack of funds, with almost a fifth of industrial enterprises citing this as a high hampering factor. Selected services sector enterprises also cited a lack of funds as their largest hampering factor, with just under 18% of service enterprises being hampered by this factor. *See Figure 8.1 and Table 8.1.*

Figure 8.1 Highly important hampering factors to innovation activites for innovative enterprises by sector, 2004 - 2006

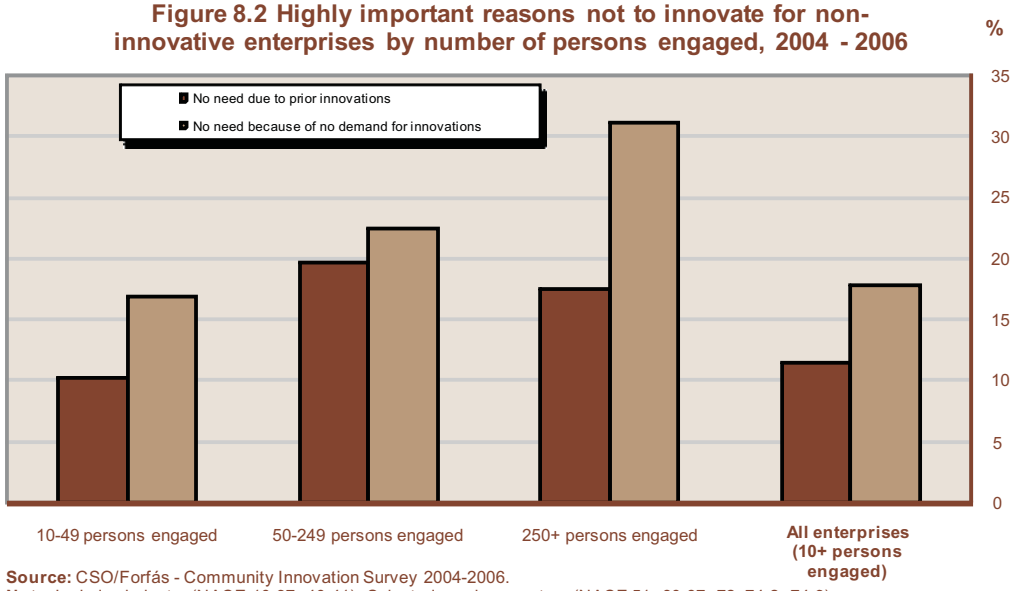


Source: CSO/Forfás - Community Innovation Survey 2004-2006.
Note: Includes industry (NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-67, 72, 74.2, 74.3).

Reasons not to Innovate

Almost 18% of enterprises who were not engaged in innovative activities indicated that a highly important factor in not innovating was that there was no demand for innovations. Just under 6% of innovation active enterprises indicated this to be the case. *See Figure 8.2 and Table 8.2.*

Figure 8.2 Highly important reasons not to innovate for non-innovative enterprises by number of persons engaged, 2004 - 2006



Source: CSO/Forfás - Community Innovation Survey 2004-2006.
Note: Includes industry (NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-67, 72, 74.2, 74.3).

Similar percentages of non-innovative industrial and selected services sector enterprises indicated that a highly important reason not to innovate was because of there being no demand for innovations. *See Table 8.2.*

Table 8.1 Highly important hampering factors to innovation activites for innovative enterprises by sector and number of persons engaged, 2004 - 2006

%

	Sector of activity				Number of persons engaged						All enterprises (10+ persons engaged)	
	Industrial sectors (10+ persons engaged)		Selected services sectors (10+ persons engaged)		10-49		50-249		250+			
	Innovative enterprises	*Non-innovative enterprises*	*Innovative enterprises*	*Non-innovative enterprises*	*Innovative enterprises*	*Non-innovative enterprises*	*Innovative enterprises*	*Non-innovative enterprises*	*Innovative enterprises*	*Non-innovative enterprises*	*Innovative enterprises*	*Non-innovative enterprises*
Lack of funds	19.3	13.6	17.9	12.0	20.3	13.3	15.5	8.0	8.6	2.7	**18.6**	**12.5**
Lack of external finance	11.9	7.3	12.4	6.9	13.9	7.4	8.1	4.7	7.7	2.7	**12.2**	**7.0**
Innovation costs too high	17.1	12.7	15.6	10.7	18.0	11.8	11.1	9.0	14.0	2.7	**16.3**	**11.3**
Lack of qualified personnel	11.2	7.7	9.2	5.5	9.1	6.7	13.1	3.3	11.3	0.0	**10.1**	**6.2**
Lack of information on technology	3.7	3.1	3.1	5.7	3.3	5.4	3.1	1.8	4.5	0.0	**3.3**	**4.9**
Lack of information on markets	6.4	3.9	5.9	4.1	6.6	4.4	5.1	1.4	4.5	2.7	**6.1**	**4.0**
Difficulty in finding cooperation partners	5.6	4.8	6.6	6.4	6.3	6.6	6.2	1.0	4.5	1.4	**6.2**	**5.8**
Market dominated by established enterprises	16.4	9.5	13.6	10.7	14.3	10.4	17.4	10.0	13.1	8.1	**14.9**	**10.3**
Uncertain demand	13.7	10.4	14.5	7.1	13.5	8.2	16.9	7.8	10.4	8.1	**14.1**	**8.2**
Need to meet Government regulations	11.6	7.0	13.9	9.3	14.4	9.1	8.1	4.9	11.3	16.2	**12.8**	**8.6**
Excessive perceived economic risks	8.8	9.0	9.9	7.7	11.0	8.7	5.3	4.9	4.5	0.0	**9.4**	**8.1**

Source: CSO/Forfás - Community Innovation Survey 2004 - 2006.

Note: Includes industry(NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-67, 72, 74.2 and 74.3). See Appendix 2 for NACE classifications.

Table 8.2 Highly important reasons not to innovate by sector and number of persons engaged, 2004 - 2006

%

	Sector of activity				Number of persons engaged						All enterprises (10+ persons engaged)	
	Industrial sectors (10+ persons engaged)		Selected services sectors (10+ persons engaged)		10-49		50-249		250+			
	Innovative enterprises	*Non-innovative enterprises*	*Innovative enterprises*	*Non-innovative enterprises*	*Innovative enterprises*	*Non-innovative enterprises*	*Innovative enterprises*	*Non-innovative enterprises*	*Innovative enterprises*	*Non-innovative enterprises*	*Innovative enterprises*	*Non-innovative enterprises*
No need due to prior innovations	5.6	10.4	7.8	12.0	7.7	10.2	4.8	19.6	2.7	17.6	**6.8**	**11.5**
No need because of no demand for innovations	5.7	16.9	6.1	18.3	6.5	16.9	4.4	22.4	4.1	31.1	**5.9**	**17.9**

Source: CSO/Forfás - Community Innovation Survey 2004 - 2006.

Note: Includes industry(NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-67, 72, 74.2 and 74.3). See Appendix 2 for NACE classifications.

Chapter 9

Organisational Innovation

Introduction

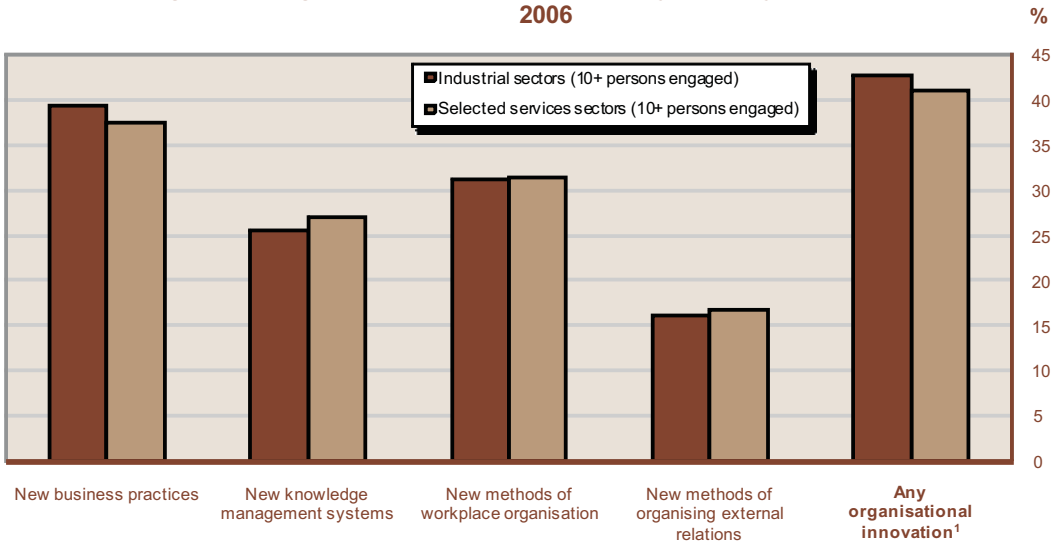
A pilot module was included in the CIS 2004-2006 which included some new questions on organisational innovation. Enterprises were asked details of organisational innovations which they introduced, who developed such organisational innovations, links to other innovations, effects of introducing organisational innovations and highly important factors with regard to not introducing organisational innovations.

Organisational Innovation

Almost 42% of all enterprises carried out an organisational innovation between 2004 and 2006. The most common form of organisational innovation was the introduction of new business practices and 38% of all enterprises indicated that they engaged in this activity. An organisational innovation was introduced by three in five large enterprises between 2004 and 2006. *See Table 9.1.*

Industrial enterprises and selected services sector enterprises had very similar rates with respect of organisational innovation. *See Figure 9.1 and Table 9.1.*

Figure 9.1 Organisational innovation activity rates by sector, 2004 - 2006



Source: CSO/Forfás - Community Innovation Survey 2004-2006.
[1] Respondents could engage in more than one type of organisational innovation,hence the sum of the categories does not equal the total.
Note: Includes industry (NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-67, 72, 74.2, 74.3).

Developers of Organisational Innovation

The majority of organisational innovations introduced by all size classes of enterprises were developed mainly within the enterprise or enterprise group. *See Table 9.2.*

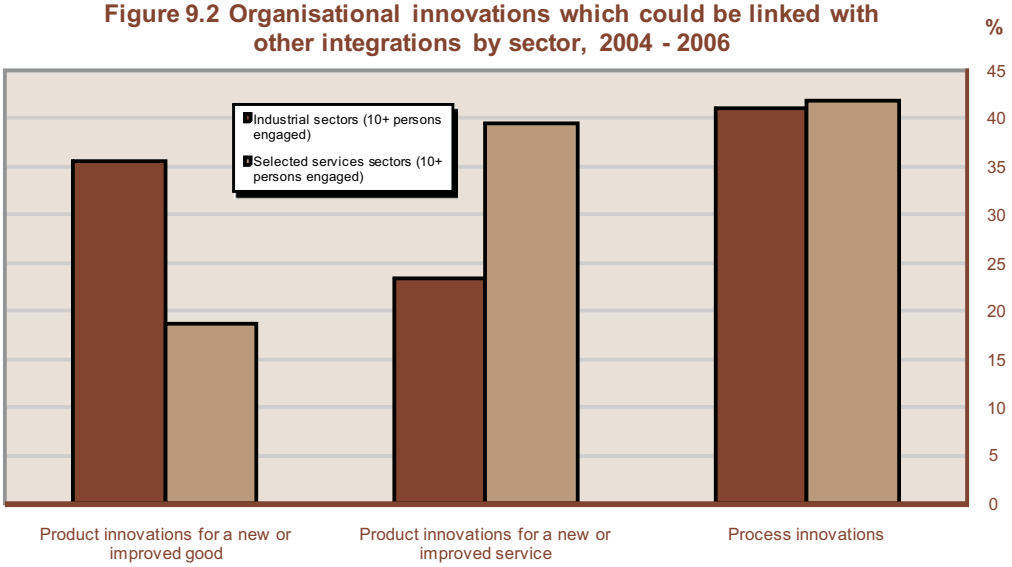
There is little difference between the industrial and selected services sectors with regard to the development of organisational innovations. Just over 82% of industrial enterprises developed their organisational innovations within their own enterprise or enterprise group compared to 79% of selected services sector enterprises. *See Table 9.2.*

Integration of Organisational Innovations

Where organisational innovations were linked to either product or process innovations, then organisational innovations were more likely to be linked to product innovations (including product innovations for a new or improved good and product innovations for a new or improved service) than process innovations. Of those organisational innovations which were linked, 26% were linked to new or improved goods, 32% were linked to new or improved services. while 41% were linked to process innovations. *See Table 9.3.*

Almost 36% of industrial enterprises indicated that their organisational innovations which could be linked to product or process innovations were linked to product innovations for a new or improved good, while 23% were linked to product innovations for a new or improved service. In the selected services sectors, almost 40% of those organisational innovations that could be linked were linked to product innovations for a new or improved services, while 19% were linked to new or improved goods. *See Figure 9.2 and Table 9.3.*

Figure 9.2 Organisational innovations which could be linked with other integrations by sector, 2004 - 2006



Source: CSO/Forfás - Community Innovation Survey 2004-2006.
Note: Includes industry (NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-67, 72, 74.2, 74.3).

Effects of Organisational Innovations

Almost a fifth of all enterprises indicated that a highly important effect of introducing organisational innovations was an improved quality in goods or services, and similarly, just over 18% of enterprises indicated that a highly important effect was a reduction in time responding to customer or supplier needs. *See Table 9.4.*

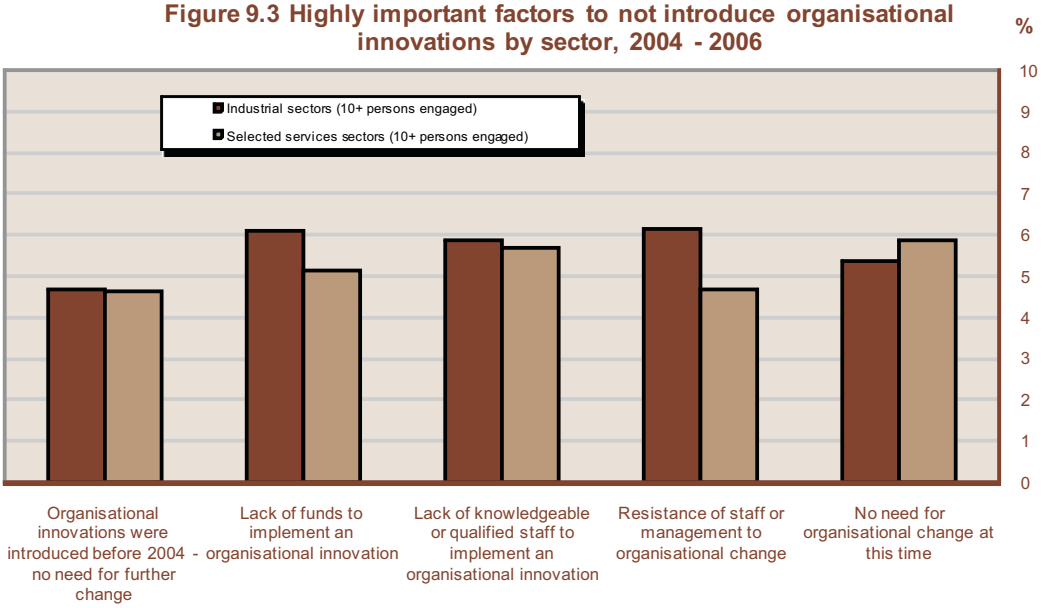
Almost 22% of industrial enterprises indicated that highly important effects of introducing organisational innovations were improved quality in goods and service, along with a reduction in time responding to customer or supplier needs, compared to 17% and 16% respectively in the selected services sectors. *See Table 9.4.*

Reasons not to Introduce Organisational Innovations

Almost 6% of all enterprises indicated that highly important factors not to introduce organisational innovations included a lack of knowledgeable or qualified staff to implement the innovations, no need for organisational change at this time and a lack of funds to implement changes. *See Table 9.5.*

Enterprises in the industrial and selected services sectors gave similar answers with regard to factors for not introducing organisational innovations over the period. Just over 6% of industrial enterprises indicated that highly important factors in not introducing organisational innovations were a lack of funds and resistance of staff or management to organisational change. Similarly, 5% of selected services sector enterprises also indicated these same factors. *See Figure 9.3 and Table 9.5.*

Figure 9.3 Highly important factors to not introduce organisational innovations by sector, 2004 - 2006



Source: CSO/Forfás - Community Innovation Survey 2004-2006.
Note: Includes industry (NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-67, 72, 74.2, 74.3).

Table 9.1 Organisational innovation activity rates by nationality of ownership, sector and number of persons engaged, 2004 - 2006

%

	Sector of activity		Number of persons engaged			All enterprises (10+ persons engaged)
	Industrial sectors (10+ persons engaged)	Selected services sectors (10+ persons engaged)	10-49	50-249	250+	
New business practices	39.3	37.5	35.8	44.8	58.0	**38.2**
New knowledge management systems	25.6	27.1	24.3	33.0	44.7	**26.5**
New methods of workplace organisation	31.1	31.4	29.3	36.1	51.5	**31.3**
New methods of organising external relations	16.1	16.7	15.4	17.9	32.5	**16.5**
Any organisational innovation[1]	**42.7**	**41.0**	**38.9**	**50.0**	**61.0**	**41.6**

Source: CSO/Forfás - Community Innovation Survey 2004 - 2006.

[1] Respondents could engage in more than one type of organisational innovation, hence the sum of the categories does not equal the total.

Note: Includes industry (NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-67, 72, 74.2 and 74.3). See Appendix 2 for NACE classifications.

Table 9.2 Developers of organisational innovations by sector and number of persons engaged, 2004 - 2006

%

	Sector of activity		Number of persons engaged			All enterprises (10+ persons engaged)
	Industrial sectors (10+ persons engaged)	Selected services sectors (10+ persons engaged)	10-49	50-249	250+	
Organisational innovations:						
Developed mainly by the enterprise or enterprise group	82.1	78.5	80.8	77.7	77.1	**80.0**
Developed by the enterprise together with other enterprises or institutions	15.1	17.5	15.4	19.4	21.2	**16.6**
Developed mainly by other enterprises or institutions	2.8	3.9	3.8	2.9	1.7	**3.5**
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: CSO/Forfás - Community Innovation Survey 2004 - 2006.

Note: Includes industry (NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-67, 72, 74.2 and 74.3). See Appendix 2 for NACE classifications.

Table 9.3 Organisational innovations which could be linked with other innovations by sector and number of persons engaged, 2004 - 2006

%

	Sector of activity		Number of persons engaged			All enterprises (10+ persons engaged)
	Industrial sectors (10+ persons engaged)	Selected services sectors (10+ persons engaged)	10-49	50-249	250+	
Linked to:						
Product innovations for a new or improved good	35.6	18.7	24.6	30.0	30.7	**26.3**
Product innovations for a new or improved service	23.4	38.5	34.1	28.3	27.2	**32.2**
Process innovations	41.0	41.8	41.3	41.7	42.0	**41.4**
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: CSO/Forfás - Community Innovation Survey 2004 - 2006.

Note: Includes industry (NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-67, 72, 74.2 and 74.3). See Appendix 2 for NACE classifications.

Table 9.4 Highly important effects from introducing organisational innovations by sector and number of persons engaged, 2004 - 2006

%

	Sector of activity		Number of persons engaged			All enterprises (10+ persons engaged)
	Industrial sectors (10+ persons engaged)	Selected services sectors (10+ persons engaged)	10-49	50-249	250+	
Reduced time to respond to customer or supplier needs	21.9	15.9	16.0	25.0	33.9	**18.2**
Improved ability to develop new products or processes	13.6	8.0	8.2	16.1	25.8	**10.1**
Improved quality of your goods or services	21.9	16.8	17.1	23.0	35.6	**18.8**
Reduced costs per unit output	21.2	9.5	12.1	18.9	31.5	**14.0**
Improved employee satisfaction and/or lower employee turnover	8.0	7.7	7.6	9.1	8.1	**7.8**
Improved communication or information sharing within your enterprise	10.2	11.5	10.1	14.2	17.3	**11.0**
Improved communication/information sharing with other enterprises or institutions	4.2	4.9	4.2	6.0	6.8	**4.6**

Source: CSO/Forfás - Community Innovation Survey 2004 - 2006.

Note: Includes industry (NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-67, 72, 74.2 and 74.3). See Appendix 2 for NACE classifications.

Table 9.5 Highly important factors to not introduce organisational innovations by sector and number of persons engaged, 2004 - 2006

%

	Sector of activity		Number of persons engaged			All enterprises (10+ persons engaged)
	Industrial sectors (10+ persons engaged)	Selected services sectors (10+ persons engaged)	10-49	50-249	250+	
Organisational innovations were introduced before 2004 - no need for further change	4.7	4.6	4.5	5.6	3..4	**4.6**
Lack of funds to implement an organisational innovation	6.1	5.2	5.7	5.4	2.7	**5.5**
Lack of knowledgeable or qualified staff to implement an organisational innovation	5.9	5.7	5.8	5.9	5.1	**5.8**
Resistance of staff or management to organisational change	6.1	4.7	5.2	5.7	4.1	**5.2**
No need for organisational change at this time	5.4	5.9	5.8	5.5	4.1	**5.7**

Source: CSO/Forfás - Community Innovation Survey 2004 - 2006.

Note: Includes industry (NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-67, 72, 74.2 and 74.3). See Appendix 2 for NACE classifications.

Chapter 10

International Innovation Rates

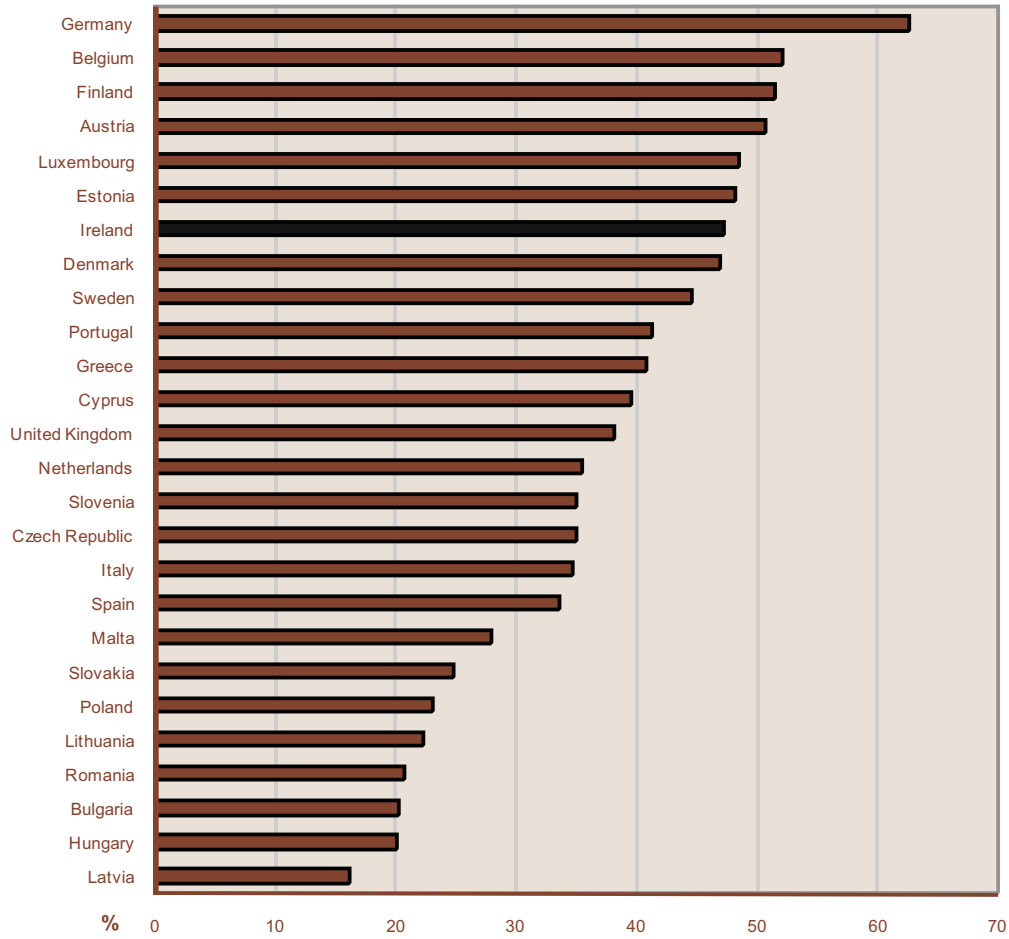
Introduction

The Community Innovation Survey is carried out in all EU member states and comparable results can therefore be looked at across the entire community.

International Innovation Rates

Innovation activity rates for enterprises in industry and selected services sectors with at least ten persons engaged were highest in Germany (63%), Belgium (52%) and Finland (51%) while 47% of enterprises in Ireland were innovation active. Almost 90% of turnover in Germany was generated by enterprises who were innovation active, compared to 82% in Finland, 80% in Luxembourg and 79% in Austria. Just over 75% of turnover in Ireland was generated by innovation active enterprises. Almost 86% of all persons engaged in Germany worked in enterprises which were innovation active compared to 68% of persons engaged in Ireland. *See Figure 10.1 and Table 10.1*.

Figure 10.1 Percentage of total enterprises with innovation activities, 2004-2006



Source: Eurostat - Community Innovation Survey 2004-2006.
Note: Includes industry (NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-67, 72, 74.2, 74.3).

Enterprises in Estonia estimated that they spent almost 4% of their turnover in 2006 on innovation related activities. This compares to 3% in Sweden and Germany. Enterprises in Ireland estimated that they spent almost 2% of their turnover on such activities in 2006. Almost 69% of enterprises in Cyprus who were innovation active engaged in innovation cooperation activities while 58% of innovation active enterprises in Finland were part of such innovation cooperation arrangements. Innovative enterprises in Ireland were less likely to engage in such cooperation. *See Table 10.2.*

Table 10.1 Principal international innovation activity rates for all enterprises (10+ persons engaged), 2004 - 2006

%

	% of total enterprises with innovation activities	% of total turnover that is generated by enterprises with innovation activities	% of total persons engaged who work in enterprises with innovation activities
European Union (EU27)	**:**	**:**	**:**
Belgium	52.2	73.6	72.6
Bulgaria	20.2	39.5	37.4
Czech Republic	35.0	62.0	61.4
Denmark	46.9	51.6	71.9
Germany	62.6	89.5	85.9
Estonia	48.2	69.9	68.8
Ireland	**47.2**	**75.1**	**68.0**
Greece	40.9	72.8	78.1
Spain	33.6	70.2	58.9
France	:	:	:
Italy	34.6	62.1	58.0
Cyprus	39.5	71.0	63.7
Latvia	16.2	42.4	39.1
Lithuania	22.3	60.5	45.6
Luxembourg	48.5	79.5	71.0
Hungary	20.1	62.6	47.5
Malta	28.0	59.5	57.9
Netherlands	35.5	59.9	57.7
Austria	50.6	78.9	76.9
Poland	23.0	60.2	53.7
Portugal	41.3	64.4	61.9
Romania	20.7	47.9	40.3
Slovenia	35.1	65.3	64.3
Slovakia	24.9	57.7	53.4
Finland	51.4	81.8	77.6
Sweden	44.6	66.0	60.2
United Kingdom	38.1	34.9	:

Source: Eurostat - Community Innovation Survey 2004 - 2006.

Note: Turnover and persons engaged in 2006.

Note: Includes industry (NACE 10-37, 40-41); Selected servics sectors (NACE 51, 60-67, 72, 74.2 and 74.3). See Appendix 2 for NACE classifications.

: Data not available

Table 10.2 Other international innovation activity rates for all enterprises (10+ persons engaged), 2004 - 2006

%

	% of total turnover attributed to product innovation activities (new to firm and new to market)	% of total turnover that is spent on innovation activities	% of innovative enterprises engaged in innovation cooperation
European Union (EU27)	:	:	:
Belgium	13.6	2.4	35.3
Bulgaria	10.3	0.9	21.2
Czech Republic	14.6	1.5	38.3
Denmark	7.8	1.6	34.2
Germany	19.2	2.9	16.7
Estonia	13.7	3.8	39.5
Ireland	**12.6**	**1.7**	**27.0**
Greece	25.6	1.3	34.8
Spain	15.9	1.1	17.0
France	:	:	:
Italy	9.1	:	13.5
Cyprus	12.3	2.4	68.8
Latvia	3.3	:	39.1
Lithuania	12.4	0.9	51.2
Luxembourg	12.4	1.9	33.3
Hungary	10.5	1.1	39.0
Malta	28.6	1.5	23.6
Netherlands	10.9	1.3	38.3
Austria	13.6	:	38.9
Poland	10.1	1.2	48.2
Portugal	13.3	1.5	18.1
Romania	18.5	1.3	16.5
Slovenia	13.3	1.9	50.2
Slovakia	16.7	1.7	35.8
Finland	15.7	:	57.7
Sweden	:	3.3	40.0
United Kingdom	8.5	:	29.5

Source: Eurostat - Community Innovation Survey 2004 - 2006.

Note: Turnover in 2006.

Note: Includes industry (NACE 10-37, 40-41); Selected servics sectors (NACE 51, 60-67, 72, 74.2 and 74.3). See Appendix 2 for NACE classifications.

: Data not available

Chapter 11

Other Business Indicators and Innovation

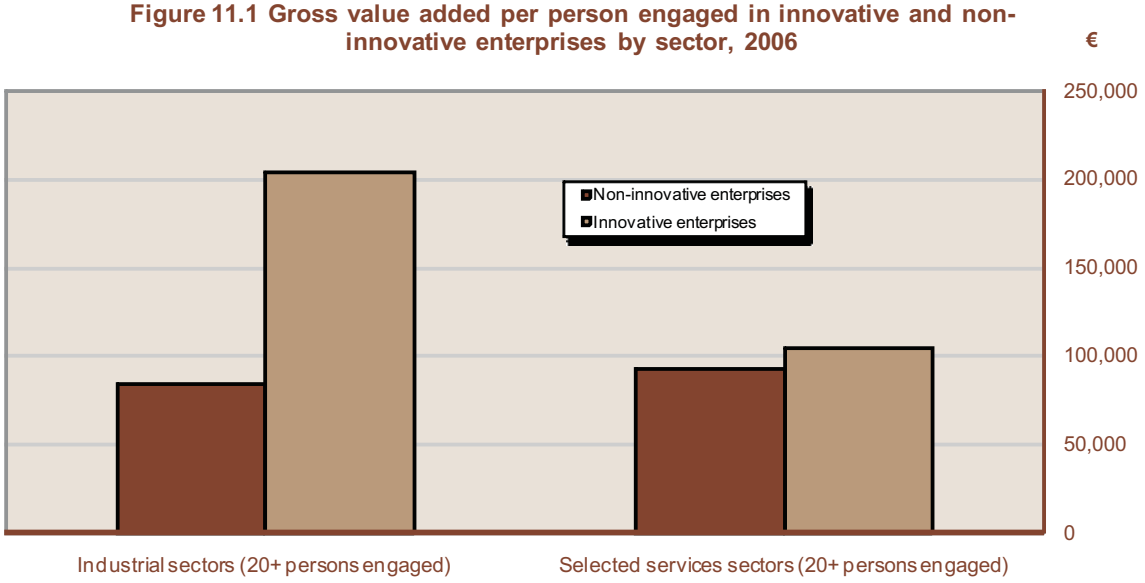
Introduction

Detailed business statistics are collected annually by the CSO in the Census of Industrial Production (CIP) and Annual Services Inquiry (ASI) surveys. Additional work has been completed to match data from the CIS to both the CIP and ASI survey results from 2006 to allow additional findings to be presented in this report. It is important to note that the results presented in this chapter should be regarded as indicative measures only as they are calculated based on a smaller matched sample and do not cover enterprises in NACE sectors 65-67 (Financial intermediation).

Gross Value Added

In 2006, innovation active enterprises had an average Gross Value Added (GVA) per person engaged of over €164,000 compared to €89,000 in non-innovative enterprises. There was also a significant difference in average GVA per person engaged in industrial enterprises where innovative enterprises had an average GVA per person engaged of €204,000 compared to €85,000 for non-innovative enterprises. There was less difference in the selected services sector where enterprises engaged in innovation activities had GVA per person engaged of €105,000 compared to €93,000 for non-innovative active enterprises. *See Figure 11.1 and Table 11.1.*

Figure 11.1 Gross value added per person engaged in innovative and non-innovative enterprises by sector, 2006



Source: CSO/Forfás - Community Innovation Survey 2004-2006; CIP 2006, ASI 2006.
Note: Innovation activities over the period 2004-2006.
Note: Includes industry (NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-64, 72, 74.2, 74.3).

Table 11.1 Gross value added per person engaged in innovative and non-innovative enterprises[1] by sector, 2006

€

	Non-innovative enterprises	Innovative enterprises	All enterprises
Industrial sectors (20+ persons engaged)	84,845	204,214	**181,908**
Selected services sectors (20+ persons engaged)	92,811	104,518	**101,021**
All enterprises (20+ persons engaged)	**89,254**	**164,264**	**146,584**

Source: CSO/Forfás - Community Innovation Survey 2004 - 2006; Annual Services Inquiry 2006; Census of Industrial Production 2006.

[1] Innovation activities over the period 2004-2006.

Note: Includes industry (NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-64, 72, 74.2 and 74.3). See Appendix 2 for NACE classifications.

Labour costs

Labour costs per person engaged were higher in innovative enterprises when compared to non-innovative enterprises. Labour costs per person engaged for all enterprises with at least 20 persons engaged were €51,000 for innovative enterprises compared to €41,000 for non-innovative enterprises. The differential for industrial enterprises was 39% compared to 16% in the selected services sector. *See Table 11.2.*

Table 11.2 Labour costs per person engaged in innovative and non-innovative enterprises[1] by sector, 2006

€

	Non-innovative enterprises	Innovative enterprises	All enterprises
Industrial sectors (20+ persons engaged)	36,157	50,105	**47,499**
Selected services sectors (20+ persons engaged)	44,408	51,434	**49,336**
All enterprises (20+ persons engaged)	**40,723**	**50,638**	**48,301**

Source: CSO/Forfás - Community Innovation Survey 2004 - 2006; Annual Services Inquiry 2006; Census of Industrial Production 2006.

[1] Innovation activities over the period 2004-2006.

Note: Includes industry (NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-64, 72, 74.2 and 74.3). See Appendix 2 for NACE classifications.

Capital Acquisitions

The rate of capital acquisitions for both innovative and non-innovative enterprises was similar. While exactly 87% of innovative enterprises had capital acquisitions in 2006, 82% of non-innovative enterprises made such acquisitions. There was a similar pattern in both the industrial and selected services sector. *See Table 11.3.*

Table 11.3 Percentage of innovative and non-innovative enterprises[1] with capital acquisitions by sector, 2006

%

	Non-innovative enterprises	Innovative enterprises	All enterprises
Industrial sectors (20+ persons engaged)	79.8	84.2	**82.7**
Selected services sectors (20+ persons engaged)	83.1	91.4	**87.2**
All enterprises (20+ persons engaged)	**81.8**	**87.0**	**84.9**

Source: CSO/Forfás - Community Innovation Survey 2004 - 2006; Annual Services Inquiry 2006; Census of Industrial Production 2006.

[1] Innovation activities over the period 2004-2006.

Note: Includes industry (NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-64, 72, 74.2 and 74.3). See Appendix 2 for NACE classifications.

Exports

In 2006, innovative enterprises were more likely to be engaged in the exporting of goods and services when compared to non-innovative enterprises. Almost two thirds of enterprises who were innovation active had exports, compared to two fifths of non-innovative enterprises. In excess of 75% of innovation active industrial enterprises engaged in export activities compared to 56% of non-innovation active enterprises. Just over 50% of all innovation active enterprises in the selected services sector engaged in exporting in 2006 compared to 28% of non-innovative enterprises in the sector. *See Table 11.4.*

Table 11.4 Percentage of innovative and non-innovative enterprises[1] engaged in exporting by sector, 2006

%

	Non-innovative enterprises	Innovative enterprises	All enterprises
Industrial sectors (20+ persons engaged)	55.6	75.1	**68.7**
Selected services sectors (20+ persons engaged)	27.6	50.6	**39.1**
All enterprises (20+ persons engaged)	**39.4**	**65.3**	**54.6**

Source: CSO/Forfás - Community Innovation Survey 2004 - 2006; Annual Services Inquiry 2006; Census of Industrial Production 2006.

[1] Innovation activities over the period 2004-2006.

Note: Includes industry (NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-64, 72, 74.2 and 74.3). See Appendix 2 for NACE classifications.

E-Commerce

Almost four in every five innovative enterprises had a website in 2006 compared to three in every five non-innovative enterprises. More than three quarters of innovation active industrial enterprises had a website compared to just over half of non-innovative enterprises in the sector while almost 81% of innovative enterprises in the selected services sector had a website compared to 68% of non-innovative enterprises. *See Table 11.5.*

Table 11.5 Percentage of innovative and non-innovative enterprises[1] with a website by sector, 2006

%

	Non-innovative enterprises	Innovative enterprises	All enterprises
Industrial sectors (20+ persons engaged)	52.6	76.3	**68.5**
Selected services sectors (20+ persons engaged)	67.5	80.5	**74.0**
All enterprises (20+ persons engaged)	**61.3**	**77.9**	**71.1**

Source: CSO/Forfás - Community Innovation Survey 2004 - 2006; Annual Services Inquiry 2006; Census of Industrial Production 2006.

[1] Innovation activities over the period 2004-2006.

Note: Includes industry (NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-64, 72, 74.2 and 74.3). See Appendix 2 for NACE classifications.

Just under half of all innovative enterprises in the industrial sector had orders via e-commerce in 2006 compared to 39% of non-innovative enterprises. In the selected services sector, 42% of innovative enterprises received such orders compared to 36% of non-innovative enterprises. *See Table 11.6.*

Table 11.6 Percentage of innovative and non-innovative enterprises[1] with orders via e-commerce[2] by sector, 2006

%

	Non-innovative enterprises	Innovative enterprises	All enterprises
Industrial sectors (20+ persons engaged)	38.5	47.9	**44.8**
Selected services sectors (20+ persons engaged)	35.7	42.0	**38.8**
All enterprises (20+ persons engaged)	**36.9**	**45.5**	**42.0**

Source: CSO/Forfás - Community Innovation Survey 2004 - 2006; Annual Services Inquiry 2006; Census of Industrial Production 2006.

[1] Innovation activities over the period 2004-2006.

[2] Enterprises who received orders via email, EDI (Electronic Data Interchange) or internet in 2006.

Note: Includes industry (NACE 10-37, 40-41); Selected services sectors (NACE 51, 60-64, 72, 74.2 and 74.3). See Appendix 2 for NACE classifications.

Appendix 1

Background Notes

Introduction

The Community Innovation Survey (CIS) 2006 is a survey of innovation activities of enterprises in Ireland and other EU Member States. The CIS is carried out under Commission Regulation (EC) No 1450/2004 implementing Decision No 1608/2003/EC. The survey collects information about product and process innovation as well as organisational innovation along with other key variables during the three year period 2004 to 2006 inclusive. Most questions cover new or significantly improved goods or services or the implementation of new or significantly improved processes, logistics or distribution methods.

The CIS was previously conducted by Forfás but is now jointly conducted by the CSO and Forfás to increase efficiency in the collection of statistical data and to reduce the burden on the participating enterprises. Data were collected in accordance with Section 33 of the Statistics Act, 1993 and with EU law and the survey was carried out under the agreed set of international rules as laid out in the OECD Oslo manual. Data are strictly confidential and are used only for statistical purposes.

Note: Methodological changes have been introduced in the CIS 2004-2006. As a consequence of this, no conclusions should be drawn regarding the direction or scale of any real changes between CIS 2002-2004 (CIS4) and CIS 2004-2006.

Survey

The CIS survey sampled enterprises with ten or more persons engaged in the selected NACE categories as shown in Appendix 2. The CSO and Forfás jointly conducted the survey as a postal survey. A total of 4,150 survey forms were issued to the sampled enterprises from the CSO's Business Register in October 2007. Reminders were issued in November 2007 and January 2008 and the survey achieved a response rate of 48%. The sample returns were grossed using this Register population to produce overall results. Appreciation is extended to enterprises who took the time to complete and return survey forms.

Questionnaire

The CIS 2004-2006 survey questionnaire is included in Appendix 4 and is also available from the CSO website. Go to www.cso.ie and then go to Business Sectors: Science and Technology.

Appendix 2

Key to NACE Rev 1.1 Classification

The selected NACE divisions below are included in the results of the CIS 2004-2006. Note that NACE divisions 65, 66 and 67 are not included in the results of chapter 11.

Industry (All divisions) – Divisions 10 to 41

10 Mining of coal and lignite; extraction of peat
11 Extraction of crude petroleum and natural gas; service activities incidental to oil and gas extraction, excluding surveying
12 Mining of uranium and thorium ores
13 Mining of metal ores
14 Other mining and quarrying
15 Manufacture of food products and beverages
16 Manufacture of tobacco products
17 Manufacture of textiles
18 Manufacture of wearing apparel; dressing and dyeing of fur
19 Tanning and dressing of leather; manufacture of luggage, handbags, saddlery, harness and footwear
20 Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials
21 Manufacture of pulp, paper and paper products
22 Publishing, printing and reproduction of recorded media
23 Manufacture of coke, refined petroleum products and nuclear fuel
24 Manufacture of chemicals and chemical products
25 Manufacture of rubber and plastic products
26 Manufacture of other non-metallic mineral products
27 Manufacture of basic metals
28 Manufacture of fabricated metal products, except machinery and equipment
29 Manufacture of machinery and equipment n.e.c.
30 Manufacture of office machinery and computers
31 Manufacture of electrical machinery and apparatus n.e.c.
32 Manufacture of radio, television and communication equipment and apparatus

33 Manufacture of medical, precision and optical instruments, watches and clocks
34 Manufacture of motor vehicles, trailers and semi-trailers
35 Manufacture of other transport equipment
36 Manufacture of furniture; manufacturing n.e.c.
37 Recycling
40 Electricity, gas, steam and hot water supply
41 Collection, purification and distribution of water

Services – Divisions 50 to 99

50* Sale, maintainance and repair of motor vehicles and motorcycles; retail sale of automotive fuel
51 Wholesale trade and commission trade, except of motor vehicles and motorcycles
52* Retail trade, except of motor vehicles and motorcycles; repair of personal and household goods
60 Land transport; transport via pipelines
61 Water transport
62 Air transport
63 Supporting and auxiliary transport activities; activities of travel agencies
64 Post and telecommunications
65 Financial intermediation, except insurance and pension funding
66 Insurance and pension funding, except compulsory social security
67 Activities auxiliary to financial intermediation
70* Real Estate activities
71* Renting of machinery and equipment without operator and of personal and household goods
72 Computer and related activities
73* Research and Development
74 Other business activities
74.1* Legal, accounting, book-keeping and auditing activities; tax consultancy; market research and public opinion polling; business and management consultancy; holdings
74.2 Architectural and engineering activities and related technical consultancy
74.3 Technical testing and analysis
74.4* Advertising
74.5* Labour recruitment and provision of personnel
74.6* Investigation and security activities
74.7* Industrial cleaning
74.8* Miscellaneous business activities n.e.c.
75* Public administration and defence; compulsory social security
80* Education
85* Health and social work
90* Sewage and refuse disposal, sanitation and similar activities
91* Activities of membership organizations n.e.c
92* Recreational, cultural and sporting activities
93* Other service activities
95* Activities of households as employers of domestic staff
96* Undifferentiated goods producing activities of private households for own use
97* Undifferentiated services producing activities of private households for own use
99* Extra-territorial organizations and bodies

* Not included in CIS 2004 - 2006

Appendix 3

Definitions

Product Innovation: The introduction of a new good or service or a significantly improved good or service with respect to its capabilities. The product innovation could either be new to the market or new to the firm.

Process Innovation: The introduction of a new or significantly improved production process, distribution method, or support activity for goods and services. The process innovation could either be new to the market or new to the firm.

Organisational Innovation: The implementation of new or significant changes in firm structure or management methods that are intended to improve your firms use of knowledge, the quality of your goods and services or the efficiency of work flows.

New to Market Innovation: An innovation activity, which saw the introduction of a new good or service by the firm onto its operating market before other competitors.

New to Firm Innovation: An innovation activity which saw the introduction of a significantly improved good or service to the firm, that was already available from competitors in the operating sector.

Innovation Expenditure: Spending on activities to support and implement production or process innovations.

Appendix 4

CIS Survey 2004-2006 Form

CONFIDENTIAL

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If above details are incorrect, please amend and mark X in this box ☐

Central Statistics Office
An Phríomh-Oifig Staidrimh

Enquiries to:
LoCall: 1890 313 414 (ROI)
0870 876 0256 (UK/NI)
021 453 5000 Ext: 5521
Fax: 021 453 5553
e-mail: bsi@cso.ie
Web: www.cso.ie

Forfás

Enquiries to:
Forfás S&T Indicators Unit: 01 607 3224
e-mail: andrew.stockman@forfas.ie
Web: www.forfas.ie

The Community Innovation Survey 2006

The 2006 Community Innovation Survey

The Community Innovation Survey is a survey of innovation activities of businesses in Ireland and other EU Member States. Data from the survey allow benchmarking exercises to be carried out comparing innovation performance in Ireland with other European nations. Data and analysis from the survey also provide backing to policymaking to promote further support for innovation across the economy.

The survey collects information about product and process innovation as well as organisational innovation during the three year period 2004 to 2006 inclusive. Most questions cover new or significantly improved goods or services or the implementation of new or significantly improved processes, logistics or distribution methods. In order to be able to compare enterprises with and without innovation activities, we request all enterprises to respond to all questions, unless otherwise instructed.

The Community Innovation Survey has previously been conducted by Forfás. The survey is now being jointly conducted by the CSO and Forfás to increase efficiency in the collection of statistical data and to reduce the burden on the participating enterprises.

The information you provide will be treated as **strictly confidential** in accordance with Section 33 of the Statistics Act, 1993 and with EU law. It will be used only for statistical purposes.

Thank you in advance for your participation in this survey. We would be grateful if you could complete and return this form in the Freepost envelope provided before 16th November 2007. The form is in a computer readable format and we would appreciate if you could complete it as clearly as possible.

Note: You can complete an online version of this form at https://eforms.cso.ie - To submit the form you will need Adobe Reader 8 or higher which can be downloaded free of charge from www.adobe.com

Gerard O'Hanlon
Director General, CSO

Martin Cronin
CEO, Forfás

Unless otherwise indicated please answer each question by marking X in the appropriate box(es)

1. General information about the enterprise

1.1 Is your enterprise part of an enterprise group? *(a group consists of two or more legally defined enterprises under common ownership. Each enterprise in the group may serve different markets, as with national or regional subsidiaries, or serve different product markets. The head office is also part of an enterprise group.)*

Yes ☐ → In which country is the head office of your group located? ☐

No ☐

If your enterprise is part of an enterprise group, please answer all further questions only for your enterprise in Ireland. Do not include results for subsidiaries or parent enterprises outside of Ireland.

1.2 In which geographic markets did your enterprise sell goods or services during the three years 2004 to 2006?

	Yes	No
Local / regional within Ireland	☐	☐
National	☐	☐
Northern Ireland	☐	☐
Other European Union (EU) countries, EFTA or EU candidate countries*	☐	☐
All other countries	☐	☐

* Include the following European Union (EU) countries, EFTA or EU candidate countries: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovenia, Slovakia, Switzerland, Turkey, Spain, Sweden and Great Britain

2. Product (a good or a service) innovation

A product innovation is the market introduction of a **new** good or service or a **significantly** improved good or service with respect to its capabilities, such as improved software, user friendliness, components or sub-systems. The innovation (new or improved) must be new to your enterprise, but it does not need to be new to your sector or market. It does not matter if the innovation was originally developed by your enterprise or by other enterprises.

2.1 During the three years 2004 to 2006, did your enterprise introduce :

	Yes	No
New or significantly improved goods. *(Exclude the simple resale of new goods purchased from other enterprises and changes of a solely aesthetic nature).*	☐	☐
New or significantly improved services.	☐	☐

→ If **no** to both options go to Section 3

2.2 Who developed these product innovations? *(select the most appropriate option only)*

Mainly your enterprise or enterprise group ☐

Your enterprise together with other enterprises or institutions ☐

Mainly other enterprises or institutions ☐

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2.3 Were any of your goods and service innovations during the three years 2004 to 2006 :

	Yes	No
New to your market? Your enterprise introduced a new or significantly improved good or service onto your market before your competitors *(it may have already been available in other markets)*	☐	☐
Only new to your firm? Your enterprise introduced a new or significantly improved good or service that was already available from your competitors in your market	☐	☐

Using the previous definitions, please estimate how your total turnover in 2006 was distributed between the following categories.

Goods and service innovations introduced during 2004 to 2006 that were **new to your market**	☐☐☐ %
Goods and service innovations introduced during 2004 to 2006 that were **new to your enterprise but not new to the market**	☐☐☐ %
Goods and services that were **unchanged or only marginally modified** during 2004 to 2006 (include the resale of new goods or services purchased from other enterprises)	☐☐☐ %
Total turnover in 2006	1 0 0 %

3. Process innovation

A process innovation is the implementation of a **new** or **significantly** improved production process, distribution method or support activity for your goods or services. The innovation *(new or improved)* must be new to your enterprise, but it does not need to be new to your sector or market. It does not matter if the innovation was originally developed by your enterprise or by other enterprises. Exclude purely organisational innovations.

3.1 During the three years 2004 to 2006, did your enterprise introduce :

	Yes	No
New or significantly improved methods of manufacturing or producing goods or services	☐	☐
New or significantly improved logistics, delivery or distribution methods for your inputs, goods or services	☐	☐
New or significantly improved supporting activities for your processes, such as maintenance systems or operations for purchasing, accounting or computing	☐	☐

If **no** to all options go to Section 4

3.2 Who developed these process innovations? *(select the most appropriate option only)*

- Mainly your enterprise or enterprise group ☐
- Mainly your enterprise together with other enterprises or institutions ☐
- Mainly other enterprises or institutions ☐

4. Ongoing or abandoned innovation activities

Innovation activities include the acquisition of machinery, equipment, software and licenses; engineering and development work, training, marketing and R&D when they are **specifically** undertaken to develop and/or implement a product or process innovation.

	Yes	No
4.1 Did your enterprise have any innovation activities to develop product or process innovations that were abandoned during 2004 to 2006 or still ongoing by the end of 2006?	☐	☐

If your enterprise had no product or process innovations or innovation activity during 2004 to 2006 (no to all options in questions 2.1, 3.1 and 4.1) then go to section 7.1.

5. Innovation activities and expenditures

5.1 During the three years 2004 to 2006, did your enterprise engage in the following innovation activities and if so what were those expenditures in 2006 only?

	Yes	No	2006 Expenditure
In-House R&D (Intramural R&D) Creative work undertaken within your enterprise to increase the stock of knowledge and its use to devise new and improved products and processes (including software development)	☐	☐	, , 000
Acquisition of R&D (Extramural R&D) Same activities as above, but performed by other companies (including other enterprises within your group) or by public or private research organisations and purchased by your enterprise	☐	☐	, , 000
Acquisition of machinery, equipment and software Acquisition of advanced machinery, equipment and computer hardware or software to produce new or significantly improved products and processes	☐	☐	, , 000
Acquisition of other external knowledge Purchase or licensing of patents and non-patented inventions, know-how and other types of knowledge from other enterprises organisations	☐	☐	, , 000
Total Total Innovation Expenditure 2006			, , , 000

6. Co-operation for innovation activities

6.1 During the three years 2004 to 2006, did your enterprise co-operate on any of your innovation activities with other enterprises or institutions? Innovation co-operation is active participation with other enterprises or non-commercial institutions on innovation activities. Both partners do not need to commercially benefit. Exclude pure contracting out of work with no active co-operation.

Yes ☐ No ☐ → If **no** go to Section 7

6.2 Please indicate the type of co-operation partner and location *(tick all that apply)*

Type of co-operation partner	Ireland	Northern Ireland	Other Europe*	United States	All other countries
A. Other enterprises within your enterprise group	☐	☐	☐	☐	☐
B. Suppliers of equipment, materials, components or software	☐	☐	☐	☐	☐
C. Clients or customers	☐	☐	☐	☐	☐
D. Competitors or other enterprises in your sector	☐	☐	☐	☐	☐
E. Consultants, commercial labs or private R&D institutes	☐	☐	☐	☐	☐
F. Universities or other higher education institutions	☐	☐	☐	☐	☐
G. Government or public research institutes	☐	☐	☐	☐	☐

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* Include the following European Union (EU) countries, EFTA or EU candidate countries: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovenia, Slovakia, Switzerland, Turkey, Spain, Sweden and Great Britain

7. Factors hampering innovation activities

7.1 During the three years 2004 to 2006, how important were the following factors in hampering your innovation activities or projects or influencing a decision not to innovate?

		Degree of Importance			
		High	Medium	Low	Factor not experienced
Cost factors	Lack of funds within your enterprise or group	☐	☐	☐	☐
	Lack of finance from sources outside your enterprise	☐	☐	☐	☐
	Innovation costs too high	☐	☐	☐	☐
Knowledge factors	Lack of qualified personnel	☐	☐	☐	☐
	Lack of information on technology	☐	☐	☐	☐
	Lack of information on markets	☐	☐	☐	☐
	Difficulty in finding cooperation partners for innovation	☐	☐	☐	☐
Market factors	Market dominated by established enterprises	☐	☐	☐	☐
	Uncertain demand for innovative goods or services	☐	☐	☐	☐
	Need to meet Government regulations	☐	☐	☐	☐
	Excessive perceived economic risks	☐	☐	☐	☐
Reasons not to innovate	No need due to prior innovations	☐	☐	☐	☐
	No need because of no demand for innovations	☐	☐	☐	☐

8. Intellectual property rights

8.1 During the three years 2004 to 2006, did your enterprise:

	Yes	No
Apply for a patent	☐	☐
Register an industrial design	☐	☐
Register a trademark	☐	☐
Claim copyright	☐	☐

9. Organisational innovation

An organisational innovation **is the implementation** of new or significant changes in firm structure or management methods that are intended to improve your firms use of knowledge, the quality of your goods and services or the efficiency of work flows.

9.1 During the three years 2004 to 2006, did your enterprise introduce

	Yes	No
New business practices for organising work or procedures	☐	☐
New knowledge management systems	☐	☐
New methods of workplace organisation	☐	☐
New methods of organising external relations	☐	☐

If **no** to all four options go to question 9.5

9.2 Who developed these organisational innovations? *(select the most appropriate option only)*

Mainly your enterprise or enterprise group	☐
Mainly your enterprise together with other enterprises or institutions *(including consultants)*	☐
Mainly other enterprises or institutions *(including consultants)*	☐

9.3 Were any of the organisational innovations integrated with or linked to other innovations that were introduced during the three years 2004 to 2006?

	Yes	No	Not relevant
Product innovations for a new or improved good	☐	☐	☐
Product innovations for a new or improved service	☐	☐	☐
Process innovations	☐	☐	☐

9.4 How important were each of the following effects resulting from your enterprises' organisational innovations introduced during the three years 2004 to 2006?

	High	Medium	Low	Not relevant
Reduced time to respond to customer or supplier needs	☐	☐	☐	☐
Improved ability to develop new products or processes	☐	☐	☐	☐
Improved quality of your goods or services	☐	☐	☐	☐
Reduced costs per unit output	☐	☐	☐	☐
Improved employee satisfaction and/or lower employee turnover	☐	☐	☐	☐
Improved communication or information sharing within your enterprise	☐	☐	☐	☐
Improved communication/information sharing with other enterprises or institutions	☐	☐	☐	☐
Other (please describe) _____	☐	☐	☐	☐

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9.5 If your enterprise *did not* introduce an organisational innovation, please indicate how important were the following factors for not introducing an organisational innovation between 2004 to 2006?

	High	Medium	Low	Not relevant
Organisational innovations were introduced before 2004 - no need for further change	☐	☐	☐	☐
Lack of funds to implement an organisational innovation	☐	☐	☐	☐
Lack of knowledgeable or qualified staff to implement an organisational innovation	☐	☐	☐	☐
Resistance of staff or management to organisational change	☐	☐	☐	☐
No need for organisational change at this time	☐	☐	☐	☐

Your comments and feedback

We welcome your feedback. Please tell us what you think about this form and also let us know what type of published data would be useful to your business.

How long did it take you to complete this form? ☐☐☐ mins

Comments:

Signature .....

Position in enterprise .....

Date ...../...../ **2007**

Phone ( ) .....

e-mail .....

Website www.....

Thank you for taking the time to complete this form.