

# *Catching the Wave*

## **A Services Strategy for Ireland**

Services Strategy Group  
Background Report

September 2008



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**Ms Mary Coughlan, TD**

**Tánaiste and Minister for Enterprise, Trade and Employment**

Dear Tánaiste,

On behalf of the Services Strategy Group, I am pleased to submit our report “Catching the Wave: A Services Strategy for Ireland”. In preparing this report, the Group has held a broad consultation process and we are grateful to those who prepared written submissions or made presentations to the Group.

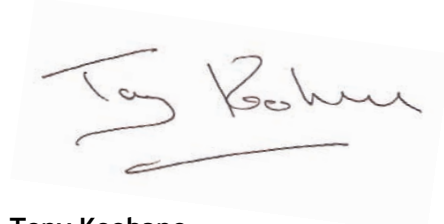
Over the past two decades, Ireland has succeeded in developing a very strong services sector, which makes a very significant contribution to the national economy. Notwithstanding the current slowdown in the Irish economy, experts agree that the services sector will serve as the engine of growth for the future of the Irish economy.

The importance of the services sector to the economy, however, has not yet been fully reflected in enterprise policy. Changes in technology, business models, value chains, markets and international trade regulations present both opportunities and challenges for service enterprises. To realise these opportunities, the Group recommends action on three fronts:

- Realising the opportunities to further grow and diversify Irish services exports;
- Encouraging internationalisation, where Irish service enterprises establish operations in overseas markets;
- Recognising the important role of Irish service enterprises that trade locally on the domestic market, and ensuring that these are efficient and productive.

The Services Strategy Group believes that a shift in thinking is needed, so that services are brought into the heart of enterprise policy. Of course, it will be up to private businesses to take advantage of the opportunities offered in services. Our report sets out how the State can pave the way by ensuring that barriers are removed and conditions optimised, and makes a number of recommendations. Implementing these will make a real difference to the future growth and health of the services sector.

As Chair of the Services Strategy Group I would like to thank all the members of the Group who have given generously of their time and expertise, and whose contributions are reflected in this report. On behalf of the Group I also wish to thank the Forfás Secretariat for their commitment, energy and professionalism throughout the process.



**Tony Keohane**

Chair, Services Strategy Group

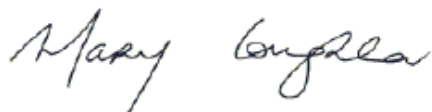
## Foreword by the Tánaiste

Ireland is one of the world's leading service exporting countries worldwide. In per capita terms, we punch well above our weight: we account for 2.7 percent of world services exports, and are currently the 10th highest exporter of services in the world.

Nonetheless, the current economic slowdown demonstrates how such accomplishments should not be taken for granted. Ireland does indeed have the potential to sustain economic growth through services. The ESRI forecasts that by 2025 services could account for over 70 percent of Irish exports and for nearly 80 percent of our GDP.

Realising this potential will crucially depend on creating the right conditions for fostering services in a globalised environment. Therefore, I welcome this report by the Services Strategy Group, "Catching the Wave: A Services Strategy for Ireland".

I would like to thank the Chair and Members of the Services Strategy Group for producing an extremely well researched and thought-provoking report that will guide the development of our Services Strategy into the future.



**Mary Coughlan, TD**

Tánaiste and Minister for Enterprise, Trade and Employment

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## About the Services Strategy Group

Both worldwide and in Ireland, services are rapidly increasing in importance, and are increasingly traded internationally. Recognising this, in July 2007 Forfás set up a Services Strategy Group, made up of representatives of industry, academia, government departments and state agencies, to develop a comprehensive, forward-looking assessment of how to maximise the returns to Ireland from services.

### Vision

The Group's vision was to examine how to position Irish enterprise within the context of globalised services, and how to achieve sustainability and continuing competitive advantage. The three strategic imperatives around which the vision developed were:

- How to further grow and diversify Ireland's services exports;
- How to grow a cadre of Irish services companies with the potential to expand into international markets; and
- How to develop productive and competitive locally traded services.

### Objectives

The Group's objectives were to:

- Assess ways of maximising the returns to Ireland from services activities in all enterprises, both current and potential; and
- Make a limited number of recommendations on how to achieve this.

### How this report is structured

This report is in two parts:

- Part A assesses the current state of the Irish services sector in light of the growing importance of services globally. It also examines three distinct categories of services in the Irish economy, each with its own challenges and opportunities.
- Part B examines broader horizontal measures that will enable the Irish services sector to realise its potential.

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## PART A: Challenges and Opportunities

The changing nature of services in an increasingly globalised economy brings with it significant challenges and opportunities for Irish firms. The Irish services sector has already achieved substantial penetration into overseas markets, and Ireland is per capita the strongest exporter of services in the world. The very importance of the sector to Ireland means that we need to work hard to maintain its competitiveness in global markets.

Ireland's export performance in services is largely based on two sectors: financial services and ICT. While it is important to ensure the continued growth of these sectors, there are many other opportunities that are currently under-exploited, and many new opportunities opening up. Changes in international markets, such as those brought about by the EU Services Directive, mean that the enterprise sector and the State must develop a coordinated response in order to maximise the benefit to Ireland.

- Chapter 1, The Growing Economic Contribution of Services, looks at trends in the services sector internationally and in Ireland.
- Chapter 2, Services: Diverse Activities, Diverse Needs looks at how we might respond to the varied needs of the services sector.

# Chapter 1: The Growing Economic Contribution of Services

The importance of services in modern developed economies cannot be overstated. Over the past number of years, many reports and commentators have noted the increasing reliance on services, saying that Ireland was ‘becoming a service economy’. The process has been gradual, but there is no doubt that Ireland today, along with every developed economy, has already become a service economy.

Services are increasingly important in developed economies for a number of reasons:

- High-earning consumers tend to spend a greater proportion of their income on services;
- More complex and sophisticated lifestyles in developed economies demand more services;
- Advanced technologies stimulate the demand for new and improved services, and facilitate their delivery; and
- Developed business models incorporate more service elements, and often rely on outsourced service provision.

In Ireland today, two out of every three workers are employed in services, and the sector contributes well over sixty percent of value added in the economy. Ireland has also established itself as one of the world’s top exporters of services.

The services sector makes a very substantial contribution to the Exchequer, and - in internationally traded services - the level of employment generated in ancillary and downstream services is considerably greater than that generated by manufacturing.

This chapter examines a number of trends in the global services sector and how they are reflected in the Irish economy. These trends suggest that the enterprise policy framework that has served us well in the past now needs to be updated to take account of changes at home and abroad.

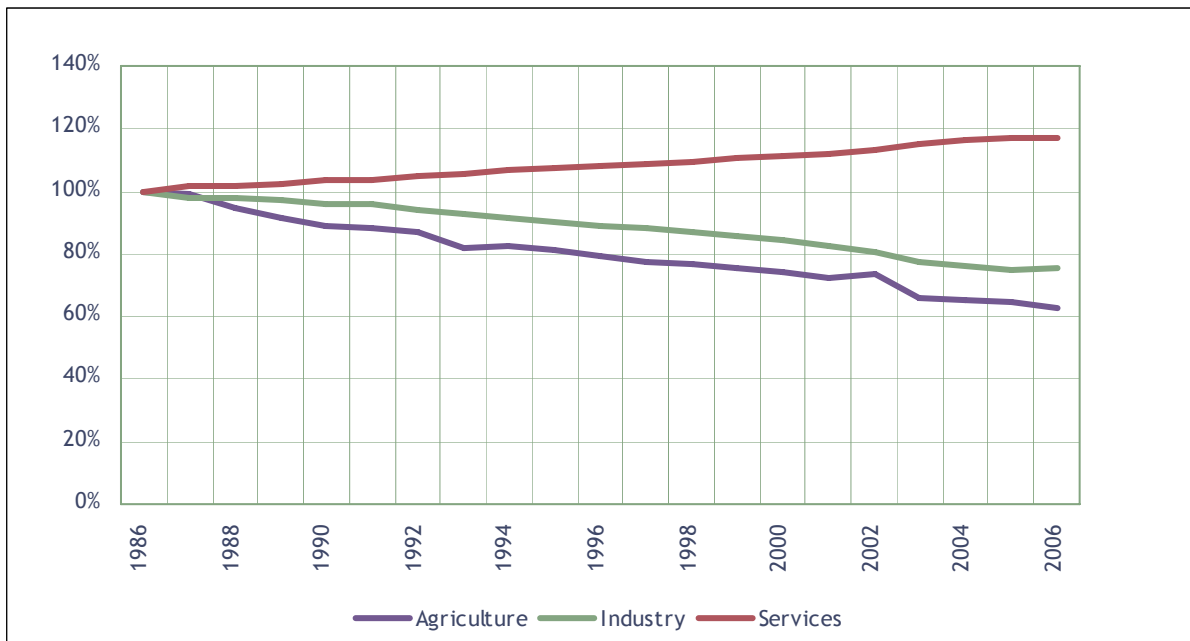
## 1.1. Global Trends

Throughout the developed world, the services sector accounts for the bulk of economic activity, in terms of both employment and value added. Services are also increasingly internationally tradable and account for a growing proportion of total world trade.

### 1.1.1 Services: over 60 percent of OECD employment

A process of structural change has taken place worldwide, where the dominant element in the structure of every developed economy has gradually shifted from agriculture to manufacturing, and in turn from manufacturing to services. Today, the services sector accounts for over 60 percent of employment in the majority of OECD countries. Services have become the main driver of growth. Since 1986, service sector employment in G7 economies has increased by almost 20 percent, while agricultural employment fell by almost 40 percent. Manufacturing employment held up until about 1990, but has since fallen significantly (Figure 1.1).

Figure 1.1: Employment by Broad Economic Sectors, G7 1986-2006 (1986 = 100%)

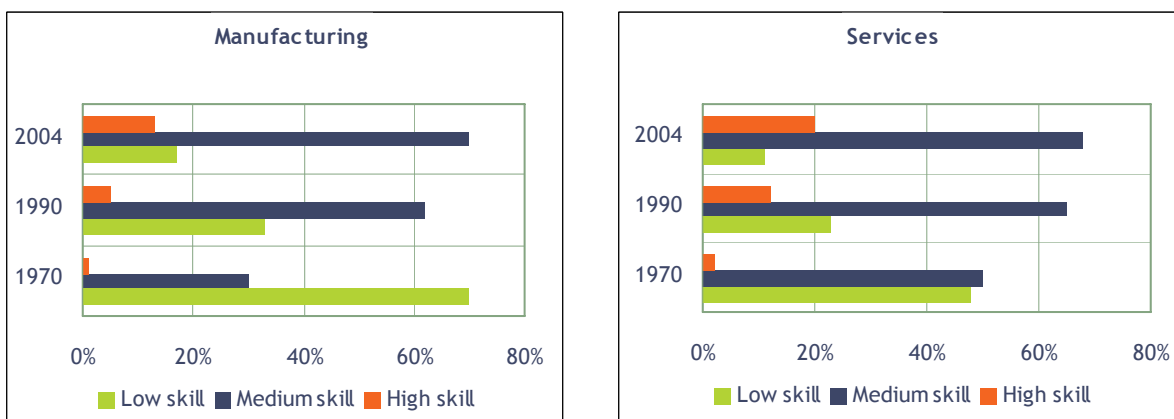


Source: OECD Labour Force Statistics

### 1.1.2 Services jobs: quality jobs

In both manufacturing and services, there are occupations requiring different levels of skill. While the services sector includes some low-paid, low-skilled occupations (mostly in personal services), it also includes some of the most skilled and best remunerated ones. In the UK, for example, services industries have consistently provided more high-skill jobs and fewer low-skill jobs than manufacturing industries (Figure 1.2).

Figure 1.2: Skill Profile of Manufacturing and Services, UK 1970 - 2004



Source: Forfás calculations based on EU KLEMS database

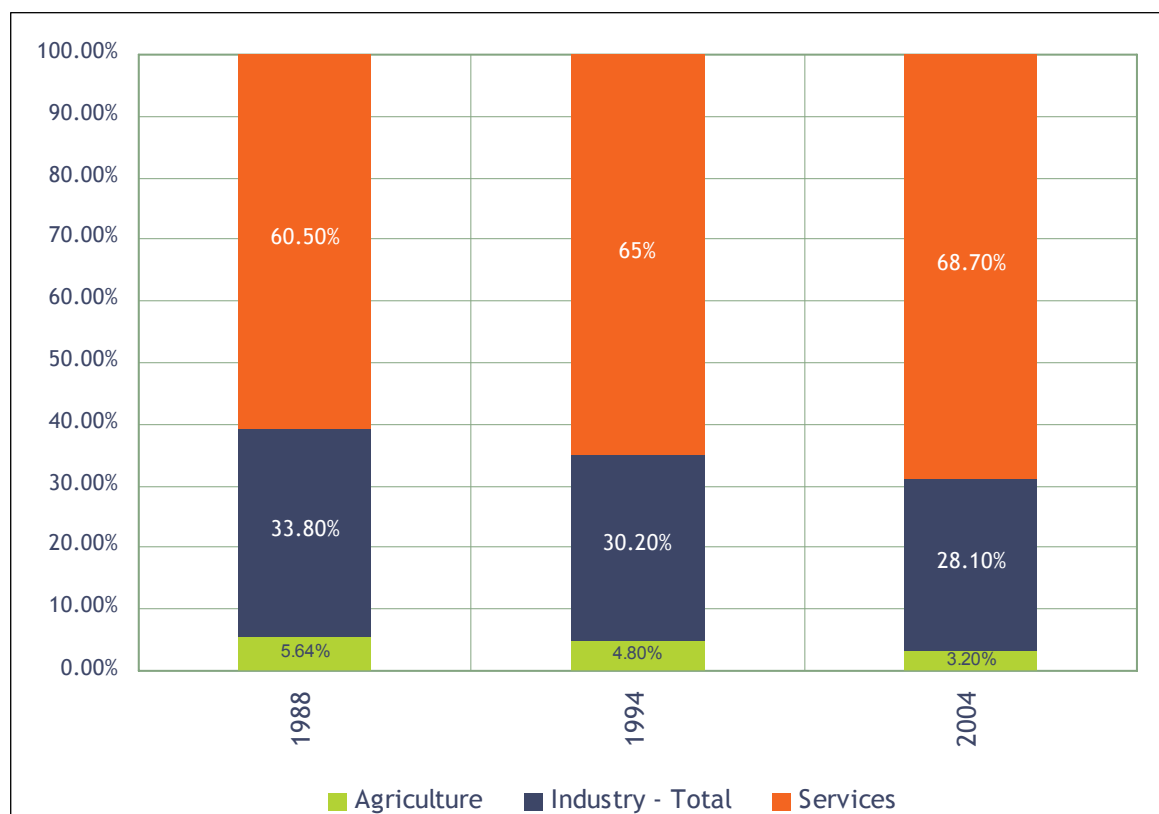
This is also true for other countries. In the US, for example, more than 30 percent of service jobs are in the highest skill category of ‘professional, technical, managerial and administrative occupations’, while only 12 percent of manufacturing jobs are in this category<sup>1</sup>.

With regard to job security, the services sector is more dynamic - job creation and job destruction are both greater in services than in manufacturing, but the services sector as a whole creates more jobs than it loses. The dynamic nature of the service sector thus maximises lifetime employment opportunities, if not the same ‘job-for-life’<sup>2</sup>.

### 1.1.3 Services: almost 70 percent of value added in the OECD

In the years between 1988 and 2004, value added in the services sector grew from 60 percent to almost 69 percent of total value added in the OECD (Figure 1.3). And in 13 OECD countries, including the majority of the G7 economies, the services sector now generates more than 70 percent of total value added.

Figure 1.3: OECD Gross Value Added 1988 - 2004



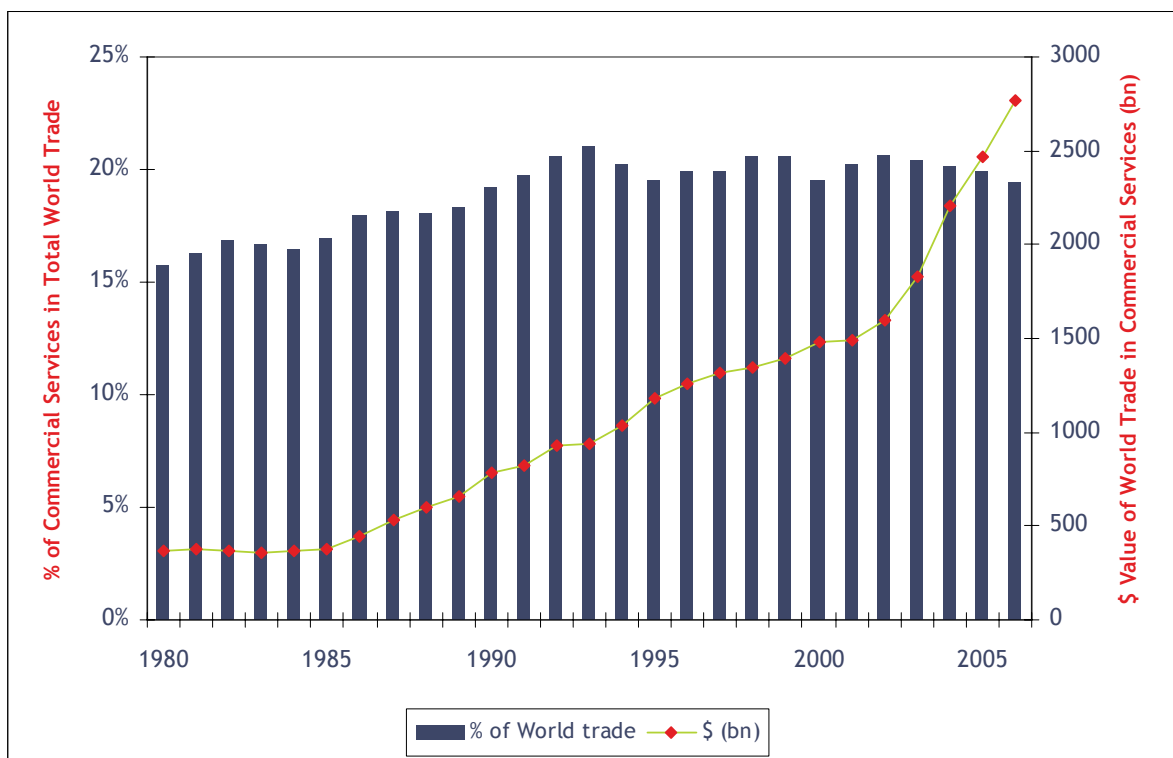
Source: OECD in Figures 2006-2007

<sup>1</sup> OECD (2005) "Enhancing the Performance of Service Sectors".  
<sup>2</sup> MGI (2005) "Domestic services: The hidden key to growth".

### 1.1.4 A growing proportion of world trade

Services account for a growing proportion of total world trade. Trade in commercial services<sup>3</sup> rose from 16 percent of total world trade in 1980 to almost 20 percent in 2006. In the same period, the value of international trade in services increased by a factor of seven (measured in US\$) (Figure 1.4). A wide variety of services are now traded across borders, including finance, insurance, computer-related activities, R&D, advertising, marketing, accounting and consultancy. These sectors now account for 20 to 30 percent of value added in the total world economy, up from 10 to 20 percent in 1980<sup>4</sup>.

Figure 1.4: Trade in Commercial Services, 1980 - 2006



Source: WTO Online Statistics Database

One of the main drivers of the rise in international trade in services is the increased practice of sourcing service inputs from abroad. This has been facilitated mainly by technological advances, such as the development of broadband services, supported by regulatory reform and trade liberalisation. This trend is expected to accelerate in coming years. In parallel with this development, companies are increasingly outsourcing service-related activities to service specialists: according to OECD estimates, up to 20 percent of jobs in some countries could be affected by domestic or global outsourcing<sup>5</sup>.

<sup>3</sup> This category includes Transport, Tourism, Communications, Insurance, Financial Services, Computer Services, Royalties and Licences, Other Business Services, and Other Services n.e.c

<sup>4</sup> OECD (2005), Enhancing the Performance of the Services Sector

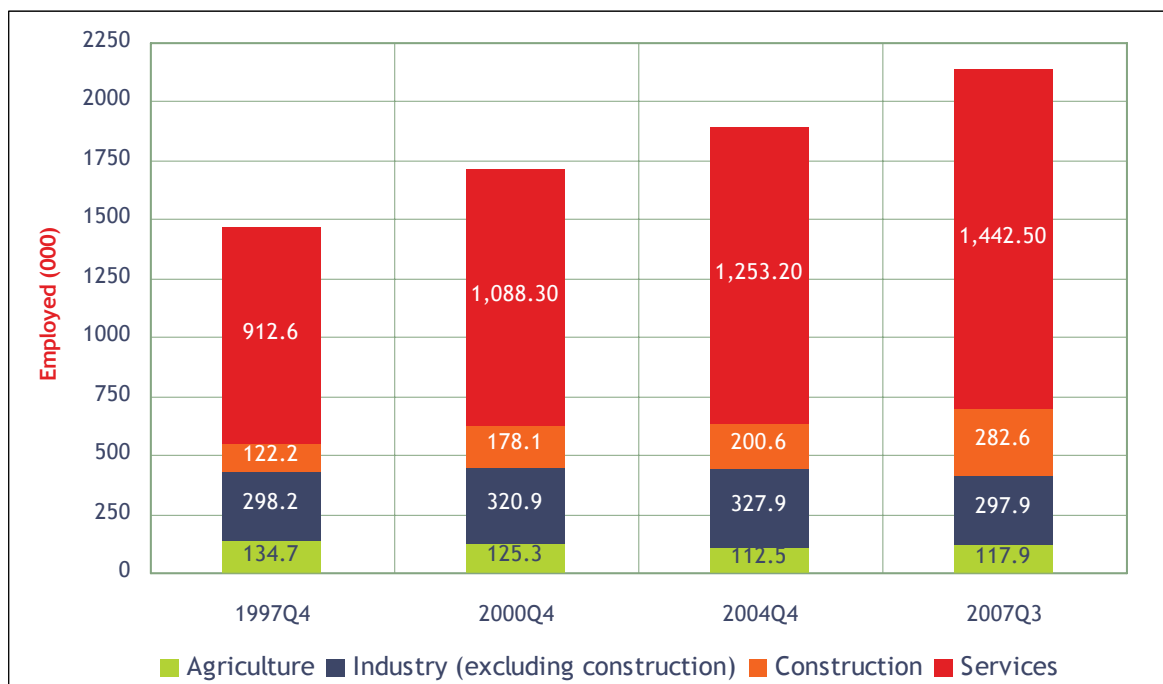
<sup>5</sup> OECD Growth in Services - Fostering Employment, Productivity and Innovation 2005

## 1.2. Irish Trends

### 1.2.1 Two out of three workers in Ireland

Two out of every three workers in Ireland are now employed in the service sector. Moreover, the recent sharp increase in total employment in Ireland has been overwhelmingly driven by the service sector: between 1998 and 2007 over 670,000 people entered employment; in this period, services employment increased by 520,000, while construction increased by 160,000 (Figure 1.5).

Figure 1.5: Structure of Irish Employment, 1997 - 2007



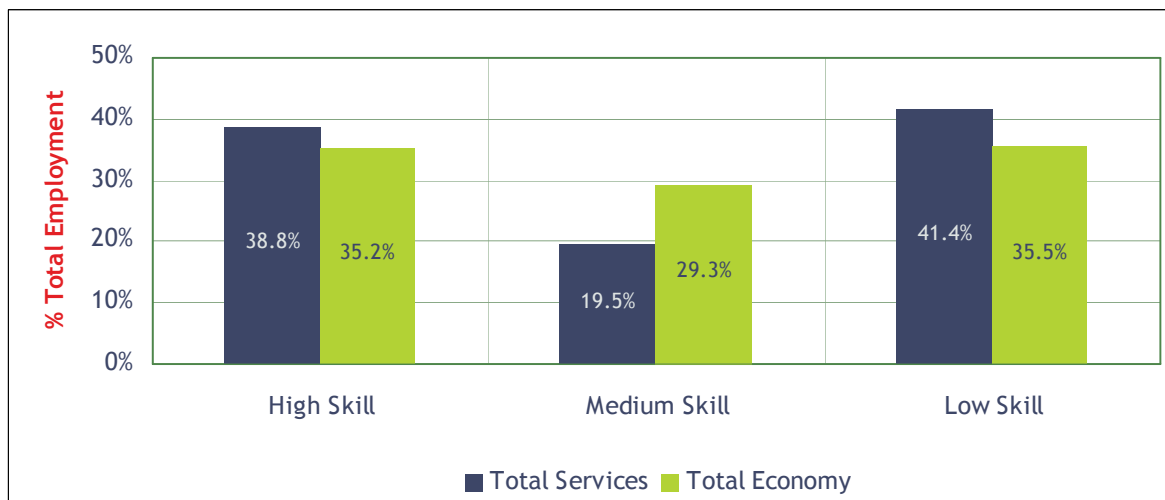
Source: CSO, online database

### 1.2.2 Significant numbers of high skilled jobs

As is the case internationally, the services sector in Ireland provides a significant number of high-skill jobs. In fact, a greater proportion of service sector employees are engaged in high-skill occupations than is the case for the overall economy (Figure 1.6). (Note, however, that the proportion of low-skill jobs in services is also greater.) Skill levels differ considerably from sector to sector: almost 52 percent of employees in Financial and Business Services are engaged in high-skill occupations, whereas less than 19 percent of employees in Hotels and Restaurants are in the same category<sup>6</sup>.

<sup>6</sup> CSO data

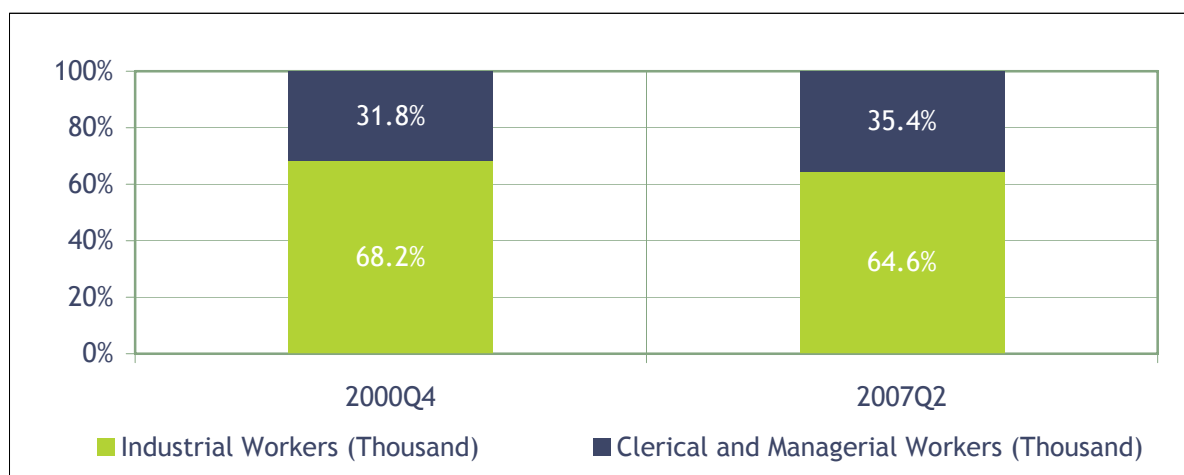
Figure 1.6: Skills Profile in Ireland, 2007



Source: CSO QNHS

The employment figures referenced above still do not fully reflect the importance of service activities in the economy. This is because of the increased blurring between sectors. More and more service activities are now taking place within manufacturing firms - this is the so-called servicisation of manufacturing. Statistically, these service activities are counted as part of the manufacturing sector, because they take place within manufacturing firms. The CSO estimates that currently about 35 percent of workers in the manufacturing sector in Ireland are engaged in services-type activities, and this number is continuing to increase (Figure 1.7).

Figure 1.7: Share of production and services (clerical and managerial) workers in Irish manufacturing, 2000 and 2007



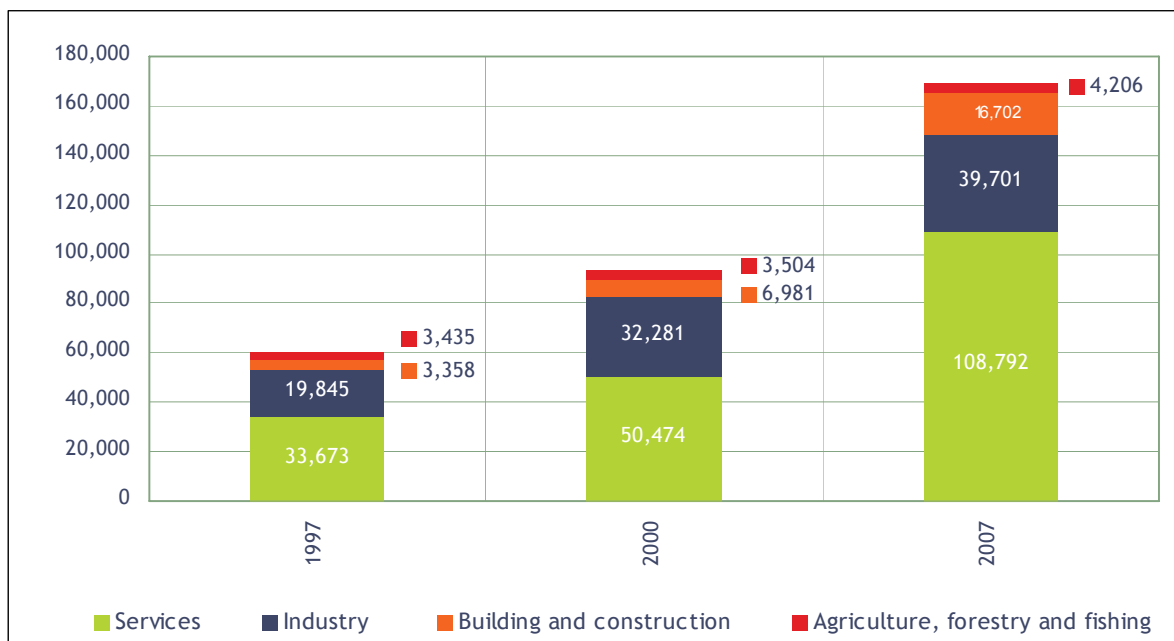
Source: CSO Database Direct

### 1.2.3 Services contribute 60 percent of Irish value added

The services sector in Ireland contributes approximately 64 percent of total value added in the economy - a proportion that has remained stable over the past decade. This is slightly less than the OECD average - a fact that can be explained by the particularly strong growth of the construction sector in Ireland, which was not replicated in other OECD countries.

In absolute terms, growth in services value added has been very pronounced. Between 1997 and 2007 Ireland's GVA more than doubled, from €60 billion to nearly €170 billion. Two thirds of this growth was in the services sector, which increased from €34 billion to €109 billion, while GVA in building and construction increased from €3 billion to €17 billion, and GVA in industry grew from €20 billion to €40 billion (Figure 1.8).

Figure 1.8: Structure of Irish GVA, 1997 - 2007 (€m)



Source: CSO Database Direct

### 1.2.4 Services: an increasing proportion of Irish exports

Over the past thirty years, Ireland has risen to become the 10th highest exporter of services in the world, increasing its share of world services exports from 0.36 percent in 1980 to 2.7 percent in 2007 (see Table 1.1). As the other countries in the table all have considerably larger populations, in per capita terms Ireland is by far the biggest exporter of services in the world.



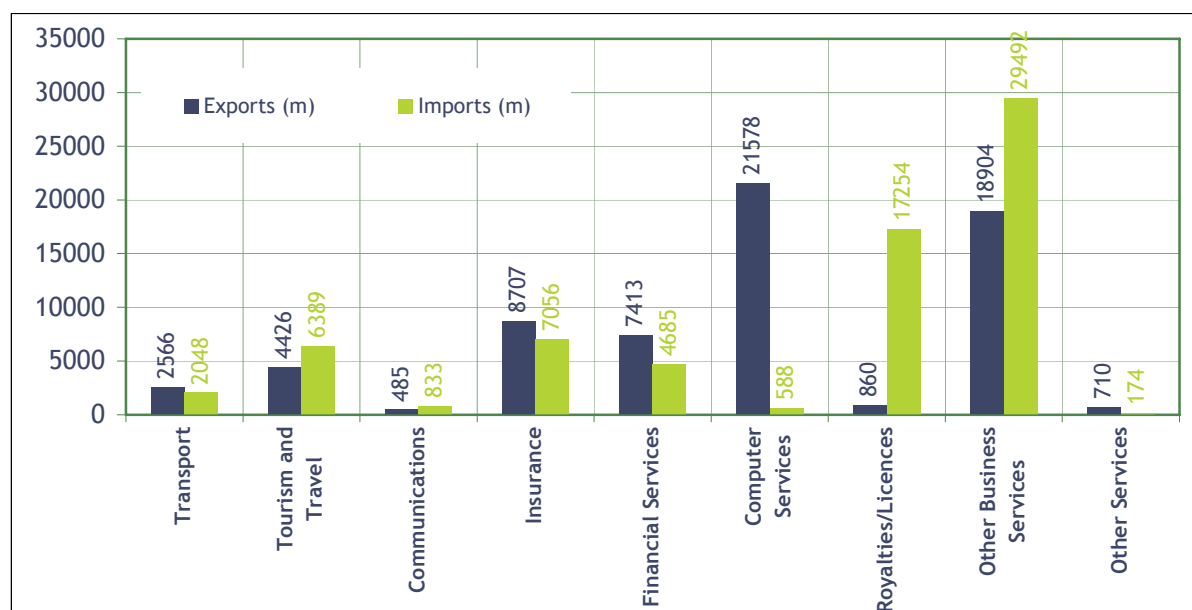
Table 1.1: The World's Leading Exporting Countries of Commercial Services, 2007

Country	Value Billion \$	Share %
United States	454	13.9
United Kingdom	263	8.1
Germany	197	6.1
Japan	136	4.2
France	130	4
Spain	127	3.9
China	127	3.9
Italy	109	3.3
Netherlands	91	2.8
Ireland	87	2.7
India	86	2.7
Hong Kong	82	2.5
Belgium	73	2.2
Singapore	66	2
Korea, Republic of	64	2

Source: WTO Online Data

In the seven years from 2000 to 2007, the contribution of services to total Irish exports doubled, from 21 percent to 43 percent. Computer-related services account for 29 percent of total services exports, and Insurance and Finance services between them account for 25 percent (see Figure 1.9).

Figure 1.9: Irish Exports and Imports by Services Sector, 2007 (€m)



Source: CSO Balance of Payments 2007

The overall Irish trade balance in 2007 was broadly similar to 2001 (Table 1.2), but the make-up of that balance changed markedly in the intervening years: the deficit in the balance of services trade has steadily improved, while the surplus in manufacturing trade has shrunk<sup>7</sup>.

Table 1.2: Irish Balance of Trade, 2001 - 2007

Balance of Trade	2001	2002	2003	2004	2005	2006	2007
Merchandise (€ m)	30,494	35,442	32,604	31,426	28,218	25,389	22,878
Services (€ m)	-13,259	-13,779	-11,091	-10,203	-9,303	-7,419	-3,963

Source: CSO data

### 1.2.5 Services fuelling sustainable growth

While it is now widely accepted that services account for the bulk of economic activity and are driving growth in the Irish economy, it is less widely accepted that growth based on services can be sustainable. A perception persists that manufacturing is the preferred - or even the only - route to economic development, largely because of its reputed ‘multiplier’ effect in adding value to the domestic economy. Recent research by the Economic and Social Research Institute (ESRI) and Forfás dispels this notion.

The ESRI has shown that the multiplier for services exports is higher than for goods exports - this means that, euro for euro, services exports provide a bigger injection into the domestic economy than do exports of goods.

The ESRI’s Medium Term Review 2008-2015 notes ‘The shift from dependence on growth in the manufacturing sector to growth in business and financial services as the driver of the economy has important implications for industrial policy and for policy on R&D and human capital. ... [I]n the future most of the additional jobs will be in the business and financial sector.’

Internal Forfás work on agency-supported firms confirms this finding using employment figures:

- Every 100 jobs in internationally traded services firms support an additional 99 service jobs in Ireland; while
- Every 100 jobs in manufacturing firms support an additional 74 service jobs in Ireland.

### 1.2.6 Other areas of economic contribution

The services sector also makes a significant contribution to the Irish economy in taxes and in terms of expenditure in the domestic economy. Table 1.3 shows the corporation tax yield from internationally trading agency-assisted services firms in the four years to 2006. Table 1.4 shows expenditure in Ireland by Irish-based internationally traded services firms in the seven years to 2006.

<sup>7</sup> See, however, footnote on page 20.

Table 1.3: Corporation Tax from Agency-Assisted Internationally Traded Services Firms

	2003 €k	2004 €k	2005 €k	2006 €k
Irish-owned Internationally Traded Services (Agency-Assisted)	40,400	39,609	47,306	51,282
Foreign-owned Internationally Traded Services (Agency-Assisted)	409,714	450,049	543,013	509,827
<b>Total (1)</b>	<b>450,114</b>	<b>489,658</b>	<b>590,319</b>	<b>561,109</b>
Overall Corporation Tax (2)	5,161,370	5,331,596	5,491,687	6,683,247
<b>Internationally Traded Services Firms (Agency-Assisted) as % of Overall Corporation Tax [ (1) / (2) ]</b>	<b>8.72%</b>	<b>9.18%</b>	<b>10.75%</b>	<b>8.4%</b>

Source: Forfás Agency Data

Table 1.4: Expenditure in Ireland by Agency-assisted Internationally Traded Services Firms

	2000 €k	2001 €k	2002 €k	2003 €k	2004 €k	2005 €k	2006 €k
<b>Materials</b>	2,111,408	2,252,340	2,572,786	2,207,123	2,079,808	1,893,151	1,986,669
<b>Services</b>	3,826,649	3,590,328	3,259,874	3,882,045	3,770,327	3,636,475	3,486,598
<b>Wages</b>	2,464,572	3,132,104	3,021,060	2,901,126	3,042,341	3,379,573	3,528,250
<b>Total</b>	<b>8,402,629</b>	<b>8,974,772</b>	<b>8,853,721</b>	<b>8,990,294</b>	<b>8,892,476</b>	<b>8,909,200</b>	<b>9,001,517</b>

Source: Forfás Agency data

### 1.3 Need for Improved Services Data

From the available data, the dominant role of the services sector worldwide and in the Irish economy is clear - modern developed economies are now well and truly service economies.

However, while a high-level overview can be derived based on available data, significant challenges remain in measuring services, not only in Ireland, but across most OECD countries. More comprehensive services metrics are urgently needed in the following areas to inform policy decisions:

- Real output of services;
- Exports and imports of services by Irish and foreign-owned firms;
- Analysis of relationships between services and the rest of the economy;
- Productivity in services;
- Quality and quality change of services;
- Employment, wages/salaries, skill levels and occupational roles; and
- Increased sectoral and regional coverage.

From a public policy perspective, it is also important that these metrics are made available in a timely manner.

**Recommendation 1.1:** Improve coverage and quality of services statistics, to better inform public policy in the service economy.

**Action:** Central Statistics Office

## Chapter 2: Services: Diverse Activities, Diverse Needs

As we have seen in Chapter 1, services are now the main driver of the economy, in terms of both wealth creation and employment. In this context, enterprise policies that are shaped mainly by the needs of manufacturing look increasingly dated and inappropriate. Ireland must develop a strategic, global and forward-looking framework that will enable the country to realise the full potential of the services sector, while continuing to foster the important contribution of manufacturing.

Service activities vary widely in terms of the markets they serve, the knowledge and skills required to deliver them, and the extent to which technology is necessary to provide them. Service enterprises differ in terms of their size and ambition, and the challenges and opportunities they face.

From the point-of-view of enterprise policy, three distinct categories of service activities can be identified:

- Services that are traded internationally by exporting to the country of destination;
- Services that are traded internationally by establishing a commercial presence in the country of destination; and
- Services that are traded only locally.

Each of these has different needs, each makes a different contribution to the economy, and the role of the State in fostering its development is different in each case.

### 2.1 Services exports

The first category covers firms that export services from Ireland to another country, where the work (or most of it) is actually carried out in Ireland. The economic returns from such activities are considerable and well-defined:

- Foreign exchange flows into the economy;
- Direct and significant employment in Ireland in all business functions; and
- Profit flows back into the Irish economy.

Such services currently account for about 43 percent of Irish exports, and this is estimated to increase to 50 percent by 2010<sup>8</sup>.

While Ireland is currently a net importer of services, the gap between imports and exports is narrowing - from over €9 billion in 2005 to €7 billion in 2006 (Table 2.1)<sup>9</sup>. The indications are that the gap narrowed further in 2007, to about €4 billion.

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<sup>8</sup> ESRI Medium Term Review 2008-2015

<sup>9</sup> The aggregate figures are somewhat distorted by the inclusion of Royalties and Licences: these imports are largely a reflection of the extent of foreign-owned manufacturing activity in Ireland, and are a good indicator of how well Ireland performs in attracting manufacturing MNCs into the country. Without Royalties and Licences, the balance of trade in services is very much in Ireland's favour - approximately €6 billion in 2005, €9 billion in 2006 and €14 billion in 2007.

Table 2.1: Irish Service Exports and Imports 2005 - 2006 (in €m)

		2005		2006	
		Services Exports	Services Imports	Services Exports	Services Imports
Total		48,219	57,521	55,051	62,471
Transport		2,131	1,982	2,334	2,024
Tourism and Travel		3,863	4,898	4,258	5,446
Communications		432	709	417	765
Insurance		6,909	5,976	8,790	7,167
Financial Services		4,850	2,654	6,188	3,750
Computer Services		15,755	352	16,747	531
Royalties/Licences		623	15,482	818	16,564
Other Business Services		13,072	25,313	14,897	26,048
<i>of which</i>	Merchanting	4,018	0	3,585	0
	Other trade related services	329	7,609	352	8,128
	Operational leasing	4,076	813	5,398	927
	Legal, accounting and other professional services	350	581	331	618
	Advertising and market research	*	*	*	*
	Research and development	330	3,831	236	3,743
	Architectural engineering and other technical services	595	259	632	330
	Management services between affiliates	*	*	*	*
	Other	1,877	3,564	1,796	3,684
Other Services			156	607	176

\* Suppressed by CSO for confidentiality reasons but included in 'Other business services' total

Source: CSO International Balance of Payments data

Overall, Ireland's export performance in services is impressive. Despite the small size of the economy, Ireland is the 10th largest exporter of services in the world, after the USA, UK, Germany, France, Japan, Italy, Spain, the Netherlands, China, Hong Kong and India.

Table 2.2 below details Ireland's services exports for 2005 by sector, with comparable figures for the Netherlands and the UK.

Table 2.2: Exports in Services: Ireland, Netherlands and UK (2005)

Services Exports	Ireland	Netherlands	UK
Total (USD, m)	57,352	92,023	203,031
Of which	%	%	%
Transport	4.6	23.3	16.3
Travel	8.3	11.4	15.1
Communication services	0.9	4.1	2.7
Construction services	0	3	0.5
Insurance services	14.8	0.5	1.4
Financial services	10.1	1.2	20.8
Computer & Information services	32.6	4.1	5.2
Royalties & Licence Fees	1	11.1	6.5
Other Business services	26.2	38.3	27.9
Personal, Cultural & Recreational services	0.6	1	1.8
Government services	0.9	2.1	1.8

Source: WTO

Ireland's current performance is concentrated in two sectors - ICT and insurance/financial services, which together account for well over half of Ireland's services exports. While it is of critical importance to continue to support these sectors, and to foster their development and growth into the future, there are significant opportunities outside these sectors - opportunities that are becoming more real with the liberalisation of export markets for services. For example, it is estimated that implementation of the EU Services Directive could increase EU trade in commercial services by as much as 30 percent.

Based on the work of the Enterprise Strategy Group and on its own commissioned research, the Services Strategy Group has identified a number of sectors and activities with significant potential for export growth<sup>10</sup> (Tables 2.3a and 2.3b).

<sup>10</sup> Sectors and activities identified by the Enterprise Strategy Group were analysed and refined by Publica Consultants on behalf of the Services Strategy Group. In examining a selection of service sub-sectors, Publica Consultants evaluated the opportunities for internationalisation associated with their main constituent industries. The evaluation took account of existing strengths and weaknesses, and of current and emerging opportunities for Irish businesses.

Table 2.3a: Sectors with Potential for Diversifying Ireland's Services Export Base<sup>11</sup>

Sector	Opportunity
Education Services	Higher education overseas students (Third level/Fourth Level) Executive education English as a foreign language eLearning
Healthcare Services	eClinical Trials Health consultancy and clinical services, education and training Visitors to Ireland: Private hospitals & clinics, Private consultants
Creative Services (Entertainment and Media)	Digital media      eGames/eMusic      Wireless communications
Maritime Services	European/global headquarter and support services International transshipment hub
Aviation Services	Headquarter functions Financial services (incl. Leasing) Aviation training
Tourism	
Construction Related Services (Engineering, Environmental & Architectural)	International contracts
Agricultural and Bloodstock Services	Provision of solutions Aid-development fund programmes Collaborative partnerships
Professional and Consultancy Services	Litigation support      Sector specific expertise
Financial Services	Investment banking      Reinsurance Asset management      Venture capital Aircraft leasing
Computer Services & Software	Software products (and associated services) Web-based business      Business process IT outsourcing IT consultancy and services      Data services
Transport	Supply chain services Visitors to Ireland - Bus tours/Tourist services/Tour operator
Business Services	Technical consulting      Legal services Architecture      Security monitoring Technical testing and analysis      Visitors to Ireland: Training Training

Source: ESG & Publica Consulting

<sup>11</sup> The notion of Ireland's export base is taken in its broadest sense to include both cross-border delivery of services as well as provision of services through movement of people (i.e. visitors to Ireland).



Table 2.3b: Activities with Potential for Diversifying Ireland's Services Export Base

Activity	Opportunity
Franchising	European franchise management
International Sales and Marketing	Attraction of FDI in sales and marketing - companies at early stage of internationalisation
Electronic Commerce	B2C eServices (hosting, ticketing) eRetailing
European Headquarters	Early stage companies seeking to internationalise, marketing Ireland's holding company regime to established companies
Shared and Outsourced Business Processes	Services with increased complexity (legal, paralegal, market research, risk management etc.) Collaborative and transformational outsourcing
Supply Chain Management	Global hub
Electronic Data Management	Electronic records and information management services

Source: ESG & Publica Consulting

The development agencies are already investigating opportunities in a number of these areas. More work is needed in order to match these opportunities against existing strengths in the Irish enterprise sector, and to identify more precisely the areas of greatest potential, both for indigenous industry and for foreign direct investment.

**Recommendation 2.1:** Carry out in-depth sectoral analysis to identify areas with most potential for services exports. Repeat such analysis at regular intervals to ensure that Ireland maintains the ability to adapt to emerging trends.

**Action:** Enterprise Ireland and IDA Ireland

Many opportunities could be realised by developing relationships between foreign-owned companies and indigenous sub-suppliers. Such relationships would benefit the firms involved, transfer skills and knowledge into the indigenous firm, and would also embed the foreign-owned company more securely in the Irish economy.

**Recommendation 2.2:** Continue to develop close linkages between the enterprise development agencies in order to identify and capitalise on opportunities for business relationships between indigenous service companies and foreign-owned firms.

**Action:** Enterprise development agencies

## 2.2 Services Firms Establishing Commercial Presence Abroad

The second category of services is those that require a physical presence abroad, in the market of delivery. In Ireland, the increasing globalisation of markets for services has manifested itself in recent years with the arrival of large retailers, professional services firms, financial services institutions, restaurants, hotels, and other service providers whose ownership and headquarters are in other countries.

These firms contribute to the Irish economy by creating employment and paying taxes, and their presence here increases levels of competition, which in turn results in higher productivity throughout the sector. Their profits, however, are repatriated to their home base, and the higher-level job functions and the higher-paid headquarters jobs are not generally located in Ireland.

However, this trend has not been one-way: a number of Irish companies have established operations in other countries, in areas as diverse as sandwich bars and software. This type of expansion, where companies establish commercial presence and business activities in overseas markets, is often referred to as 'Outward Direct Investment' (ODI). The World Trade Organization estimates that 50 percent of international trade in services is by way of ODI, compared with 35 percent by direct export<sup>12</sup>.

While services exports offer the most significant and tangible benefits to the State, ODI also has the potential to make a significant contribution. A recent study<sup>13</sup> carried out on behalf of Forfás suggested that firms engaged in ODI tend to:

- Increase their domestic employment levels;
- Increase the proportion of high-skilled employees in their domestic operations;
- Experience increased productivity<sup>14</sup>.

In view of these benefits, measures should be taken to identify companies trading locally in Ireland that have the potential and the ambition to grow significantly and establish operations for trading locally in overseas markets.

ODI is not well supported by government support programmes in Ireland or elsewhere. In a survey of OECD countries<sup>15</sup>, about 70 percent of support programmes for international activity were directed at exports. This emphasis needs to be broadened in a modern globalised economy. If Ireland wants to maintain its position as a leading service economy, public policy needs to reflect the importance of ODI, and ways need to be found to maximise the benefits to Ireland from internationalisation.

Companies seeking to internationalise their operations have to become 'brand builders', so that they can achieve the scale required to compete not just on the domestic market in Ireland but also in international markets. This is a significant challenge: the vast majority of Irish locally trading companies are very small, and lack the financial and human resources needed to take on the challenge of internationalisation.

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<sup>12</sup> The remaining 15% is accounted for by consumption abroad (for example in tourism) and the presence of natural persons.

<sup>13</sup> Study by Copenhagen Economics ApS: the full report can be accessed at [www.forfas.ie](http://www.forfas.ie)

<sup>14</sup> The higher levels of productivity and employment experienced by firms engaging in ODI may be a function of better management and competitive advantages within these enterprises, rather than the ODI itself.

<sup>15</sup> OECD, 2006, Removing Barriers to SME access to international markets

### 2.2.1 The Role of the State

While the benefits of ODI by Irish firms to the Irish economy are not as great as those that arise from direct exports, they are sufficient to justify the attention of the State agencies. ODI delivers benefits both to the individual firm and to the economy as a whole, in terms of increased innovation, productivity growth, repatriated profits, highly skilled and highly paid employment in headquarters operations, specialist sub-supply opportunities, and management development through exposure to international trading best practice. However, as most of the employment is created abroad and much of the tax revenue goes to foreign authorities, hard supports (such as grant aid) cannot be justified, and State intervention should be in the form of capability supports, such as:

- Management capability development, specifically dealing with running a growth-oriented business;
- Access to professional mentors with sectoral knowledge in domestic and international markets;
- Access to innovation supports;
- Access to Enterprise Ireland's overseas network; and
- Introductions to private/public venture capital funds.

Table 2.4 below shows the main barriers to internationalisation by SMEs, as identified by the OECD: these are in the main addressed by the kind of soft measures listed above.

Table 2.4: Top 10 barriers to SME access to international markets

Rank	OECD Classification	Description of barrier
1	Capabilities	Inadequate quantity of and/or untrained personnel for internationalisation
2	Finance	Shortage of working capital to finance exports
3	Access	Limited information to locate/analyse markets
4	Access	Difficulty identifying foreign business opportunities
5	Capabilities	Lack of managerial time to deal with internationalisation
6	Capabilities	Inability to contact potential overseas customers
7	Capabilities	Difficulty developing new products for foreign markets
8	Business Environment	Unfamiliar foreign business practices
9	Capabilities	Difficulty meeting export product quality/standards/specifications
10	Access	Unfamiliar exporting procedures/paperwork

Source: OECD Member Economy Policymaker Survey

### 2.2.2 Areas of Opportunity

Analysis carried out on behalf of the Services Strategy Group identified a number of areas with potential for Irish companies to establish commercial presence abroad. These are set out in Table 2.5 below.

Table 2.5: Areas of Opportunity for Irish Companies to Establish Commercial Presence Abroad

Sector/Activity	Opportunity
Real estate activities	Property development
Business services	Security monitoring
Recreational services	Music Gambling
Utilities	Mobile & Wireless services
Health & Welfare services	Nursing homes Private hospitals & clinics Private consultants
Professional and Consultancy Services	Legal Property Architecture Engineering/Construction International mediation service centre
Retail and Wholesale	Supermarket chains
Restaurants / Bars / Catering	
Personal services	Hairdressing chains Wellness centres
Educational services	English language schools

Source: ESG & Publica Consulting

In addition to sector-specific opportunities, more general opportunities, such as franchising, were identified in a wide range of service sectors, including retailing, hotels, restaurants, business services and personal services. The opportunities in any one sector may be limited, but they are significant when viewed collectively.

**Recommendation 2.3:** Explicitly consider opportunities for Irish services companies establishing abroad as part of Enterprise Ireland's longer term strategy, in tandem with opportunities for exporting.

**Action:** Enterprise Ireland, Department of Enterprise, Trade & Employment

## 2.3 Locally Traded Services

Around the world, policymakers recognise the contribution that service exports can make, but attention is only beginning to turn to the contribution of locally traded services. However, recent research<sup>16</sup> shows that, given the right competitive environment, local services are a powerful source of wealth creation and employment, in some cases more powerful than offshore services. Enterprise policy needs to recognise the economic importance of locally traded services in their own right, as well as their role in supporting internationally trading businesses.

In every developed economy, locally traded services (LTS) underpin a wide range of economic and social activities - without these local services, it is not possible to live in an area and not possible to run a business. People choose where to live and work based on the availability in the locality of personal services, entertainment, restaurants, shops, education, travel and cultural services of all kinds. And businesses locate where there is a ready supply of labour, as well as a full range of business-to-business and infrastructural services. In both cases, the quality of those services is an issue, as is the price.

Internationally trading businesses rely on local services for a wide range of inputs, from waste management to legal advice, from printing to management consultancy. The cost of services is also reflected in the standard of living enjoyed by the consumers of those services, and ultimately affects their expectations for pay and conditions of employment.

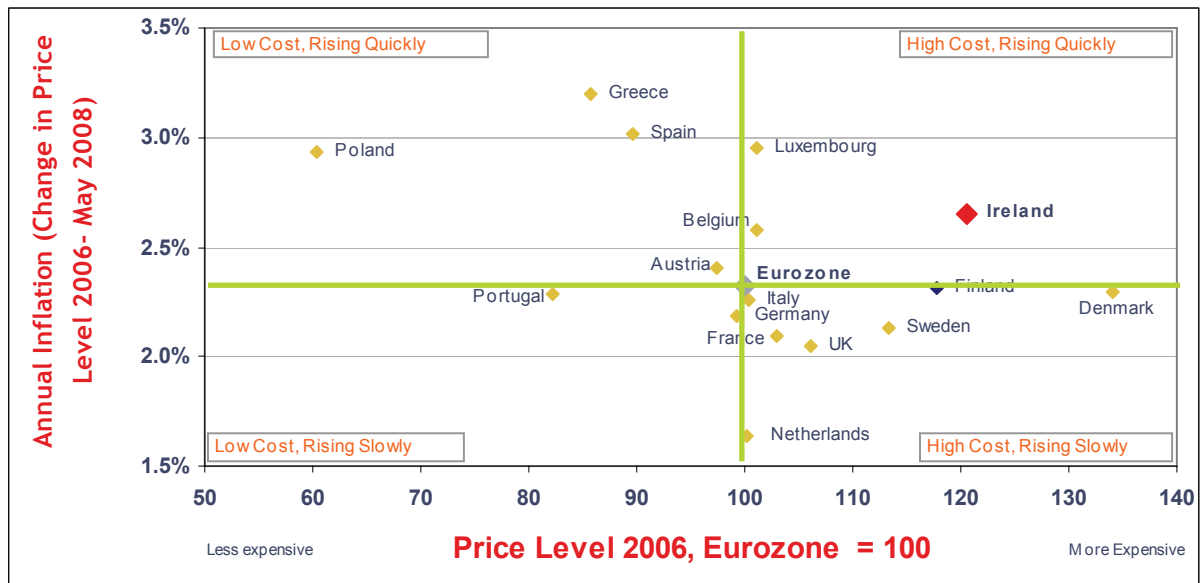
Over the past ten years, inflation in the price of Irish services has exceeded that of other European countries by almost 25 percent, and Ireland is now second only to Denmark in terms of cost. Unlike Denmark, however, where inflation is relatively low, Irish prices are rising at the fifth fastest rate in Europe (see Figure 2.1). This has a significant effect on our international competitiveness and on the attractiveness of Ireland for foreign investment. A recent survey of multinational companies revealed that cost issues were five of their top ten concerns<sup>17</sup>.

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<sup>16</sup> McKinsey Global Institute, 2005

<sup>17</sup> Survey of MNCs in Ireland 2005: Results of the 8th Annual Survey of Competitiveness, IMI Centre for Management Research.

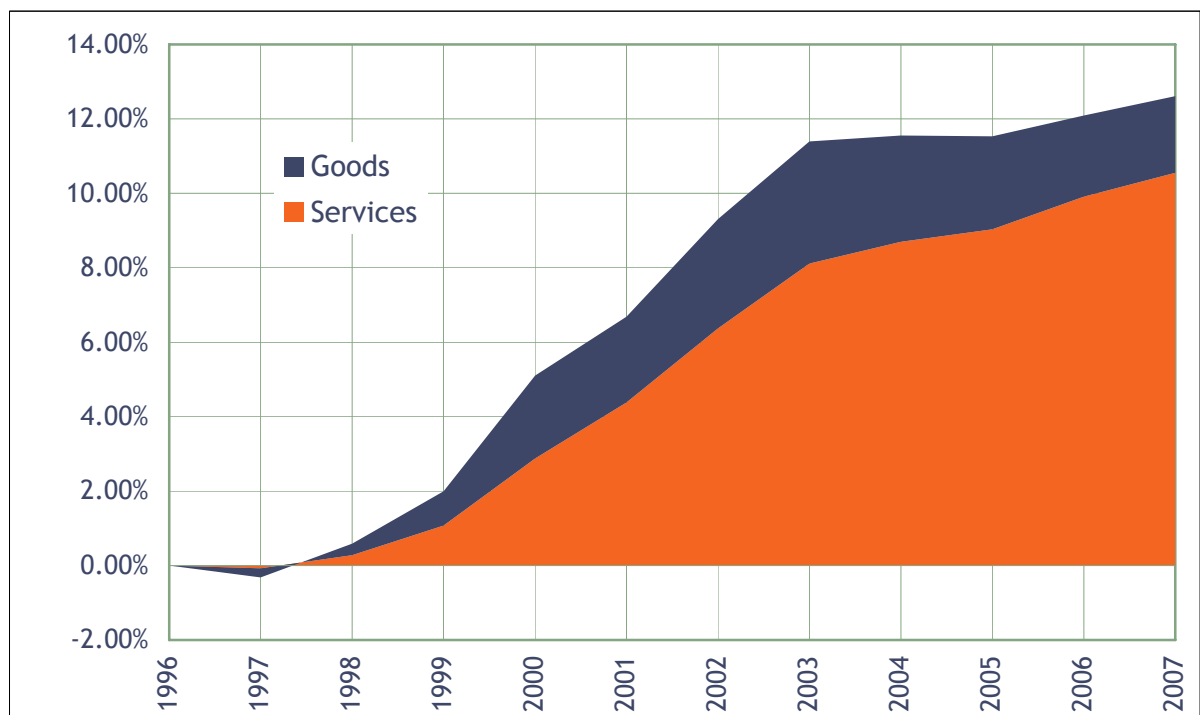
Figure 2.1: Price Level 2006, and Inflation 2006-2008, EU Member States



Source: Eurostat, Economy and Finance Indicators

The differential in the inflation rate between Ireland and its European neighbours is accounted for mainly by increases in the cost of locally traded services. Irish inflation has outstripped Eurozone inflation by 12 percent in the past decade - inflation in the price of goods accounted for only 2 percent of this; the remaining 10 percent was due to inflation in the price of services (Figure 2.2).

Figure 2.2: Cumulative Difference between Irish and Euro zone Inflation Rates, 1996-2007



Source: Derived from Eurostat, Economy and Finance Indicators, 2008 [online]

Inefficient services also have an adverse effect on the labour market. They absorb scarce labour skills, and as a result the overall labour supply is tightened and wages are driven up. This again impacts on the competitiveness of businesses that trade internationally.

The locally traded services sector thus plays a major role in the economy - a role that can be pivotal in determining the performance of the economy in the years ahead. The State must recognise this role, identify the needs of this sector, and put in place measures to address those needs. The main challenge will be to ensure productivity and efficiency in this sector - a challenge discussed in more detail in Part B of this report.

## 2.4 The Legislative Framework for Supporting Services

Many of the recommendations in this report require the enterprise development agencies to address the needs of the services sector. However, these agencies operate within a legislative, regulatory and policy environment that constrains their activities in this regard:

- The Industrial Development (Services Industries) Order 2003 specifies a list of twenty-one service industries that are eligible for assistance under the Industrial Development Acts. A range of additional sectors with development potential should be included in this list.
- Enterprise Ireland operates under the Enterprise Ireland Policy Statement, 1998 issued by the Department of Enterprise, Trade & Employment. This restricts Enterprise Ireland from providing support to locally traded services companies, whereas it would be useful in some cases for the agency to have the flexibility to provide such support where it could deliver significant value to the economy.

**Recommendation 2.4:** Review and where necessary amend ministerial orders and policy statements to facilitate the development agencies in fostering the growth of services.

**Action:** Department of Enterprise, Trade & Employment

## PART B: Horizontal Measures

In Part A we looked at the challenges and opportunities that are facing the Irish services sector on a number of fronts and suggested a number of vertical opportunities that are now available to the Irish services sector. In Part B we move on to looking at horizontal measures we can take to maximise those opportunities. Broadly these break down into actions in the areas of productivity Skills and innovation. Actions in these areas are desirable in all sectors of the economy; in services However there are particularly compelling reasons for believing that returns on effort and investment will be well rewarded.

- Chapter 3, **Boosting Productivity in Services**, looks at ways of increasing productivity. These include measures that individual firms might take as well as broader initiatives and policy framework measures designed to make a difference.
- Chapter 4, **Enhancing Skills in Services**, looks at ways of ensuring that our workforce is equipped with the range of skills required in the services sector.
- Chapter 5, **Fostering Innovation in Services**, looks at the potential for innovation in the services sector and at the policy initiatives required to provide structured supports for services particularly in the area of R&D.



## Chapter 3: Boosting Productivity in Services

In recent years, Ireland's economic progress has been driven on the one hand by increases in the numbers employed, and on the other by growth in the productivity of those at work. As Ireland's demographic profile has changed and labour force participation rates have significantly increased, continued progress in the years ahead will increasingly depend on enhanced productivity. This applies not only to the internationally trading sectors, where success in the face of global competition will demand that Irish businesses match or exceed the performance of their competitors, but also to locally traded services, whose performance has a huge impact on the cost base of the whole enterprise sector, and on overall living standards.

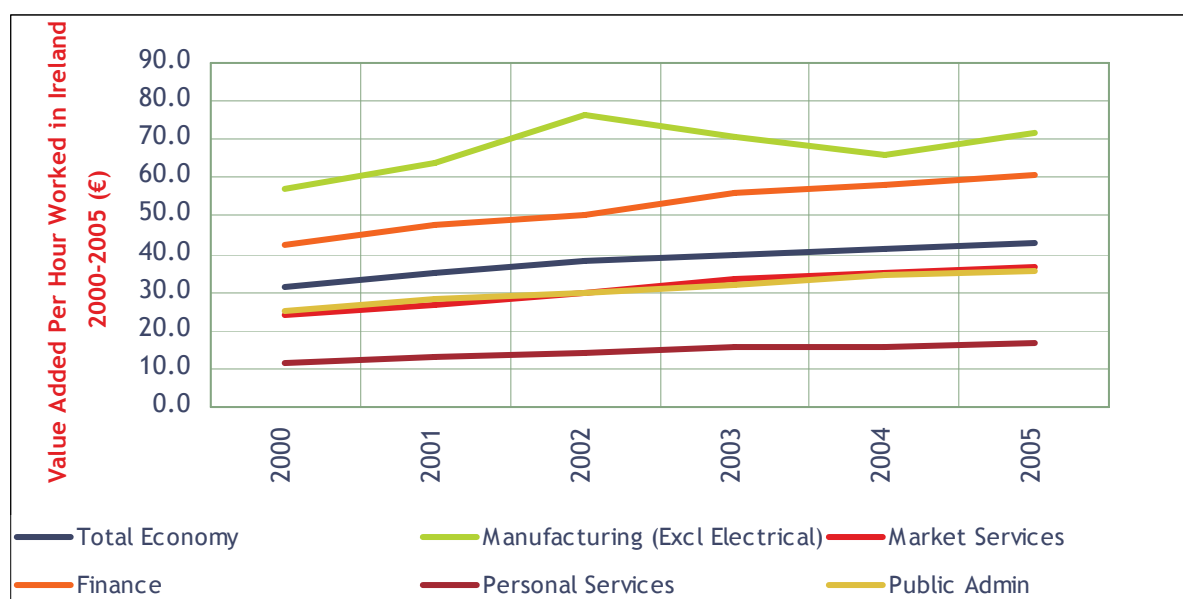
This chapter begins by looking at current levels of labour productivity in Ireland across a number of services sectors, and at international productivity comparisons. It then identifies a number of areas where enhancements could have an immediate positive impact on productivity in services, and deals with these in some detail. They include:

- The use of ICT in service companies;
- The delivery of Next Generation Networks;
- The enhancement of competition policy; and
- The application of firm-level benchmarking in order to assess company performance and identify areas for performance improvement.

### 3.1 Labour Productivity in Ireland

Both in Ireland and in other developed countries, productivity - measured by value added per hour worked - is considerably higher in manufacturing industry than in services. Productivity in manufacturing is also increasing faster than in most service sectors - the only exception being financial services (Figure 3.1).

Figure 3.1: Value Added Per Hour Worked by Sector (€), Ireland 2000 - 2005



Source: EU KLEMS Database

The relatively low rate of productivity in services generally masks a wide variety of experiences. In some service sectors, such as distribution, telecommunications and parts of the financial services industry, technological change has strongly affected the production process and the organisation of production.

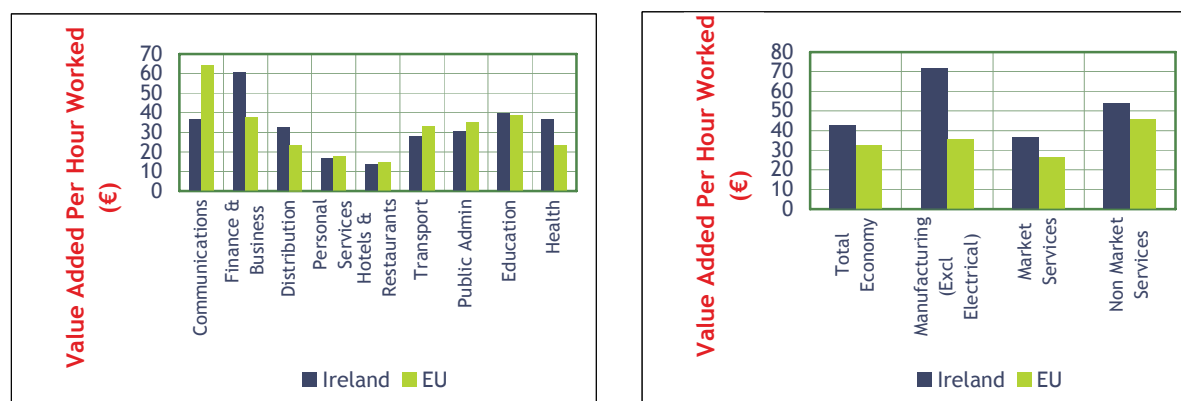
In some other service sectors - most notably personal services - productivity growth has been sluggish. Many of these sectors are less easily automated or are less amenable to technological improvements, and as a consequence there is less scope for productivity growth in these areas.

### 3.2 International Comparison of Productivity in Services

In general, Irish value added per hour exceeds the EU average for each major sector of the economy - manufacturing, market services and non-market services, as can be seen in the graph on the left-hand side of Figure 3.2.

The graph on the right of Figure 3.2 compares Irish productivity levels with EU levels in a number of service subsectors. It is noticeable that, while Irish productivity levels in financial and business services are significantly above the EU average, many of the largest sectors - including communications, public administration, and transport - perform relatively poorly in productivity terms. The strong performance of the finance and business services sector is most likely due to the presence of a number of large multinationals in Ireland.

Figure 3.2: Value Added Per Hour Worked (€), 2005



Source: EU KLEMS Database

### 3.3 Maximising Productivity through ICT in Services

One of the key requirements for improving the productivity of services in Ireland is to increase the uptake and effective use of ICT by the sector. For SMEs in particular, ICT has a major role to play in bringing down costs, in improving the quality of customer service, and in helping firms to compete more effectively on international markets.

A significant difference has been noted in the productivity of the US retail sector and its EU counterpart<sup>18</sup>. This is generally put down to the poor level of ICT take-up among European firms - and this may also apply to other sectors.

However, it is not just a matter of catching up with the US. Greater use of ICT and e-business activities across the enterprise base is essential to the continued competitiveness of Irish enterprises, and to the creation of a knowledge economy. Standard ICT and e-business applications are now essential for the day-to-day running of business, and can deliver considerable efficiency gains. Much more significant is the possibility of using ICT in sophisticated and innovative ways to deliver new and improved services, implement new business models, access new markets, and build real competitive advantage.

A recent Forfás report<sup>19</sup> evaluated Ireland's e-business performance against a number of leading e-business economies worldwide, and found that enterprises in Ireland are notably behind the leading countries in their adoption of broadband, in website development, and in the proportion of employees who regularly use ICT in the workplace. While Irish-based enterprises perform comparatively well in their use of ICT for buying and selling, there is scope, particularly among SMEs, to further develop online trade. The barriers to such developments - real and perceived - are limiting the potential of many enterprises to access new markets.

There is also considerable scope for businesses in Ireland to further integrate ICT into their internal business processes and into their external communications with customers and suppliers. The businesses would benefit from reduced transaction costs and improved customer service levels.

While significant progress has been made in many areas, the fact that Ireland achieves only average scores for most e-business indicators is disappointing. If Ireland is to match those countries that consistently achieve higher rankings, action is required in a number of areas. Both Forfás and the Small Business Forum<sup>20</sup> have already made a number of recommendations, which the Services Strategy Group endorses. In particular, the Group calls for a more coordinated and integrated approach to e-business policy development, and emphasises the important role that competition has played internationally in driving innovation in ICT services. More specifically, two points are worthy of renewed emphasis:

- The Government should further develop the quality and availability of online services, in line with international best practice. These should include improved e-procurement and e-payments systems. This would have a twofold benefit:
- Improved public sector productivity; and
- Increased use of ICT in private enterprise.
- Companies should be encouraged to adopt appropriate ICT applications and broadband facilities, and should be more aware of the opportunities these can bring. This will require a more integrated approach to ICT education and training.

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<sup>18</sup> For further discussion on this issue, see Mary O'Mahony and Bart van Ark's paper entitled EU Productivity and Competitiveness: An Industry Perspective: Can Europe Resume the Catching-up Process? (2003), as well as Bart van Ark, Robert Inklaar and Robert H. McGuckin's paper ICT and Productivity in Europe and the United States Where Do the Differences Come From?, published in CESifo Economic Studies, Vol. 49, 3/2003, 295-318

<sup>19</sup> Forfás (2007), eBusiness Monitor: Technology Working for Irish Business

<sup>20</sup> Forfás (2006), Small Business is Big Business, Report of the Small Business Forum

### 3.4 Investing in Next Generation Networks

The increasing importance of services, particularly those that are structured around electronic transactions and information flows, makes it essential for Irish companies to have access to highly efficient and reliable communications systems.

The development of an enhanced ICT environment (and the increased productivity that it brings) depends crucially on an appropriate network infrastructure to support it. Email, web applications, SMS TXT, mobile working and video conferencing have been adopted in virtually all business sectors over the past ten years. Some industries, such as the music and games industries, have been transformed by the widespread availability of broadband - even at the modest levels at which it is currently available. Many sectors - including healthcare, education, entertainment and government services - are becoming increasingly dependent on fast, reliable networks. Business models that have become widespread over the past two decades would be inconceivable without global electronic networks, as these are essential for offshoring and outsourcing. Today, a business can locate each of its business functions wherever it is most efficient to do so - R&D, design, production, delivery and support functions can all be dispersed around the world.

Major areas of business opportunity are now emerging that will require bandwidth far greater than that currently available. Even today's more advanced applications, which require at least basic broadband connectivity, are not available countrywide. The next generation of applications will start to roll out over the next couple of years, and these will require high-speed next-generation broadband. The creation, adoption and sustained use of these applications will depend on the architecture and capacity of the communications infrastructure (Table 3.1).

Table 3.1: Applications made possible by different levels of connectivity

Generation	Typical applications
1st generation bandwidth (dial-up connectivity)	Email, instant messaging, chat rooms and blogs
2nd generation bandwidth (basic broadband: 200Kbps to 3Mbps)	Content sharing, interactive games, VoIP, videoconferencing, etc.
Next generation broadband (50Mbps to 1Gbps)	Interactive TV, HDTV, location based services, etc.

The need for this kind of high-speed infrastructure has been repeatedly emphasised in a number of studies over the past few years, along with recommendations regarding access by consumers and service providers. The OECD, for example, has identified as crucial a competition regime that allows effective access to infrastructure (for both consumers and providers) and that fosters innovation and investment.

The only realistic option for next generation networks in Ireland is to rapidly deploy fibre optic cables at the access level. Copper-based networks will become redundant as capacity requirements grow, and the potential of wireless/mobile as a delivery mechanism appears restricted in the short to medium term. Internationally, the deployment of fibre to the home is regarded as the ultimate next generation broadband solution - this would require a once-off investment that could be exploited for the next 30 or 40 years.

Given the short investment horizons of the main telecoms companies in Ireland and the current state of competition in the industry, it is most unlikely that industry will deliver a next generation network to Ireland within the required timescale. The Services Strategy Group believes that, without State involvement, next generation network services will be deployed only where they have demonstrable short-term commercial viability. This constraint will be overcome only by a partnership approach between the public and private sectors.

The Government has already established a National Advisory Forum to advise on the development of next generation networks. The Services Strategy Group recognises the importance of encouraging high levels of investment in the next generation of broadband infrastructure and services, and endorses the work of the Forum.

**Recommendation 3.1:** Develop a Next Generation Network implementation plan, in consultation with relevant Government departments. This should identify the delivery mechanism (direct State provision or Public-Private Partnership) that will yield maximum return on investment to the State.

**Action:** Department of Communications, Energy & Natural Resources

### 3.5 Strengthening Competition Policy

Competition has a key role to play in increasing enterprise efficiency, in improving productivity, and in building a more dynamic economy. Competition is a particularly important issue for the locally traded services sector, as this sector is largely sheltered from the rigours of international competition. The objective of policy should be to achieve high productivity in services, coupled with a level of competition in locally traded services that is strong enough to counter inflation. If the competition policy challenge is not adequately addressed, services inflation in Ireland will continue to exceed the European average and contribute to the deteriorating cost competitiveness of Irish firms.

#### 3.5.1 The Role of the State

The State can enhance competition in the services sector in a number of ways. At the broadest level, public policy should avoid contributing to market rigidities and, where possible, it should facilitate entry into the market. More specifically, measures to enhance competition, particularly in locally traded sectors of the economy, should be prioritised and expedited - for example, in legal and other professional services, in public transport, energy and waste services, and in medical and paramedical professions. The regulatory regime within which these services operate should be reviewed to ensure that it is not anti-competitive.

In recent years, the Competition Authority has examined many examples of regulations that restrict competition, and has recommended a number of reforms. Government is not required to either accept the Authority's recommendations, but it would be useful if its intentions in this regard were made clear within a reasonable timeframe.

Many of the Authority's recommendations have not been acted upon, perhaps due to a lack of appreciation for the value of improved competition or to the influence of incumbents and their

representative bodies. For example, the Authority made a number of recommendations to address restrictions on competition in the legal profession, including changes in legislation, the establishment of an independent Legal Services Commission, and the opening of professional education to competition. These recommendations have yet to be implemented. Similarly, the Authority made recommendations regarding competition in the market for electricity. Despite some positive moves, the ESB is still the dominant player in generation and in domestic electricity supply, and a number of potential competitors have exited the market in recent years.

The current review of the Competition Act 2002 being conducted by the Minister for Enterprise, Trade & Employment provides a timely opportunity to review the powers of the Competition Authority. In the context of this review, the Competition Authority has requested extra powers, as well as a number of technical improvements to the Act that would make it more effective. One new power particularly worth considering would allow the Authority to bring a civil enforcement action in the High Court, and allow the court to impose fines in such actions.

**Recommendation 3.2:** Ensure that the Competition Authority is adequately empowered and resourced to enable it to fulfil its mandate.

**Action:** Department of Enterprise, Trade & Employment

Government should review past recommendations from the Competition Authority, indicate its disposition in relation to those recommendations, and specify what progress (if any) has been made towards their implementation. And in future, Government's response to recommendations from the Competition Authority should take place within a formal structure.

Such an approach would be similar to the practice in the UK, where the Government is obliged to respond to recommendations from the Office of Fair Trading (OFT) that relate to the lifting of restrictions on competition. The UK Government must respond within 90 days of receiving an OFT report, setting out what recommendations it proposes to act upon (and which it does not intend to act upon).

**Recommendation 3.3:** Introduce a process whereby the Government responds formally to recommendations from the Competition Authority.

**Action:** Department of the Taoiseach

This approach would increase transparency in the decision-making process, highlight progress made, and help identify outstanding issues. It would also encourage Government departments and other stakeholders to develop a greater understanding of and appreciation for the role of competition in a dynamic economy.

### 3.5.2 The Role of Regulation

Ireland's regulatory regime should encourage competition and market openness as much as possible, but without unfairly prejudicing other legitimate interests. It should also avoid imposing unnecessary burdens on enterprise, citizens and public administration.

Appropriate, balanced regulation can enhance a sector's competitive advantage. In the international financial services sector, for example, Ireland's credible, responsive and proportionate regime is seen as an example of best practice. And this reputation for high-quality regulation is cited by many multinational firms as one of their main reasons for locating in Ireland.

Significant work has been undertaken to date in the area of regulatory reform. For example, the Better Regulation initiative overseen by the Department of the Taoiseach and the recently announced Review of the Economic Regulatory Environment are important steps in ensuring that Ireland's regulatory regime remains internationally competitive.

The Business Regulation Forum recommended a fresh approach in a number of areas, including a more risk-based approach to health and safety regulation. Their view is that regulation should be less onerous in situations of low risk and for smaller companies - for example, HACCP rules should be simplified for small companies<sup>21</sup>.

### 3.5.3 Public Procurement

The State has a direct impact on the levels of competition in the economy through its public procurement practices. As there are a number of studies currently under way examining procurement processes, the Services Strategy Group did not address the matter in detail.

Under current regulations, competing tenders are evaluated on a range of criteria, including price, but also including a range of other qualitative and quantitative criteria (depending on the nature of the work). The contract is awarded on the basis of 'most economically advantageous tender'. The Group believes that a number of principles could be incorporated into public procurement policy in order to accelerate the development of the services sector:

- Tender requirements should be consistent with an efficient and effective procurement process;
- Procurement should stimulate entrepreneurship and innovation;
- Where possible, requests for tenders should specify the use of open standards (see section 5.3.2, below);
- Small firms should be encouraged to collaborate to win large tenders. The National Public Procurement Policy Unit's (NPPPU) consultation document *Improving SME Access to Public Procurement* is welcome in this regard. The results of the consultation process should be used to expedite policy development; and
- Long-term contracts should be used only where there is a clear economic benefit for doing so. Such contracts protect the successful provider from competition, whereas periodic renewal of competition forces providers - incumbent and prospective - to compete on productivity and innovation, and helps ensure that deregulation does not simply replace public monopolies with private near-monopolies.

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<sup>21</sup> Hazard Analysis and Critical Control Points (HACCP) is a systematic preventative approach to food safety that addresses physical, chemical and biological hazards as a means of prevention rather than finished product inspection.

### 3.5.4 Strengthening European Competition Policy

In addition to ensuring that domestic competition policy and the regulatory framework support an open competitive economy, Irish policymakers should continue to work towards achieving a similar environment internationally. Because of the openness of the Irish economy, the increasing liberalisation of international markets for services is to Ireland's advantage.

In international negotiations with its trade partners, Ireland is a proponent of liberalisation, at both European and global levels. However, progress in liberalising trade in services is slow, mainly because the barriers to international trade are predominantly qualitative rather than quantitative, and more difficult to dismantle than the barriers to trade in merchandise.<sup>22</sup>

The Single European Market has already exposed Irish services industries to more competition from overseas; the Services Directive (see below) will accelerate this trend, opening up Irish markets to competition from overseas, and opening up foreign markets to Irish service providers.

Other developments in the short-term future include:

- A single EU market in financial services;
- A single EU market in telecommunications, and
- An all-Ireland market for electricity, and the integration of that market with similar markets in other countries in North-West Europe.

Such developments have the potential to boost competition in services in Ireland - particularly in sectors where competition is currently limited or non-existent, due to factors such as market concentration or the presence of a single very dominant player.

Government should embrace these initiatives as a way of boosting competition and productivity. In general, Ireland should not seek derogations from EU competition directives, except where there is a compelling public policy reason for doing so.

### 3.5.5 European Services Trade Liberalisation - The Services Directive

The EU Directive on Services in the Internal Market is intended to create a single market for commercial services. The Directive was adopted in 2006 and must be transposed into law by December 2009. It creates a legal framework that enables service providers to:

- Become established in other member states; and
- Provide services to other member states without being established there.

The services covered by the Directive represent about 40 percent of national income, and it is estimated that its implementation could increase trade in commercial services by between 15 and 30 percent<sup>23</sup>.

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<sup>22</sup> Such barriers include the existence of national monopolies in service sectors, restriction of certain activities to domestic firms or regulation on the establishment and operation of foreign providers.

<sup>23</sup> The Directive applies to all commercial services, except those set out in Article 2 (e.g. financial, electronic communications, transport, services of general (non-economic) interest [public services], temporary work agencies, healthcare services, audiovisual services, gambling, services involving the exercise by the state of official authority [Article 45 of the Treaty], certain social services, private security services, the activities of notaries and taxation. In addition, under Article 1, the Directive does not affect certain areas, including labour law. Services of general economic interest (services entrusted with public service missions, e.g. public utilities) are partially included.



The creation of a single market for services will result in significant export opportunities for Irish service providers and will give Irish consumers access to a large number of services at competitive prices. The overall effect will be to enhance Ireland's competitiveness. It will also enhance the EU's competitiveness by creating the necessary economies of scale for European service providers to challenge competitors from other countries.

There is little awareness among Irish service firms of the challenges and opportunities presented by the Services Directive, and this deficit needs to be addressed. First-mover advantage is important when new markets are opened up, so now is the time to give clear information to Irish enterprise about specific sectoral opportunities resulting from the Services Directive.

**Recommendation 3.4:** Identify specific opportunities arising from the Services Directive at sectoral level, and communicate these clearly to businesses.

**Action:** Department of Enterprise, Trade & Employment

The Department of Enterprise, Trade & Employment is currently preparing a Regulatory Impact Assessment (RIA) as part of the process of transposing the Directive into Irish law. This RIA will assess the costs and benefits that will accrue to Ireland as a result of introducing the Services Directive. As both Government and business need to understand the full implications of service market liberalisation, the RIA should provide:

- Sectoral analysis, not only of sectors in which Ireland currently has a strong trading position, but also of a wider range of sectors where there may be potential for enterprise development; and
- An assessment of the challenges and opportunities presented by the possibility of developing commercial presence in foreign markets.

### 3.5.6 Global Services Trade Liberalisation - The WTO negotiations

Ireland, as a member of the World Trade Organisation (WTO), has also been engaged in multilateral trade negotiations on the subject of services for the past eight years. In these negotiations, the EU Commission negotiates and concludes international agreements on behalf of Ireland and the Community as a whole at the bilateral and multilateral level.

Ireland's stance at these negotiations is coordinated by the Department of Enterprise, Trade & Employment, the Department of Agriculture & Food, and the Department of Foreign Affairs. Useful input is made by non-government groups, but the broad consultation process is not formalised in Ireland, while it is in some other major service economies.

**Recommendation 3.5:** Improve the process for developing Ireland's international trade negotiating stance by establishing a formal, ongoing consultation mechanism.

**Action:** Department of Enterprise, Trade & Employment

Ireland's position in negotiating international trade agreements is informed by the facts and figures available to the negotiators. In 1.3, above, it was noted that the statistics currently available on the services sector and on international trade in services do not provide a comprehensive picture of the sector, and recommended that additional effort be expended in collecting and analysing statistics on the sector. Additional data is also needed in order to adequately inform Ireland's position in trade negotiations.

**Recommendation 3.6:** Compile and publish an annual report on Traded Services.

**Action:** Central Statistics Office

### 3.6 Firm Level Benchmarking

In the locally traded sector, it is often difficult for business owners and managers to identify their areas of weakness, to know what international best practice is, and to measure their performance against that of similar firms elsewhere.

Firm-level benchmarking enables them to do this. It is a diagnostic tool that enables firms to compare and contrast all aspects of their operation against similar firms and sectoral norms, in order to identify best practice across a range of variables.

The Services Strategy Group believes that locally trading service firms in Ireland would benefit from such benchmarking, and recommends that a voucher scheme be introduced to encourage firms to engage in benchmarking. The scheme could operate in a similar manner to the innovation voucher scheme introduced by Enterprise Ireland on the recommendation of the Small Business Forum. The cost per firm would be modest.

Such an initiative would set clear limits on the involvement of the State: if the benchmarking identifies any weaknesses in the firm's performance, it would be the firm's responsibility to identify and implement a suitable remedy.

**Recommendation 3.7:** Introduce a voucher scheme to encourage locally trading service firms to benchmark their performance against national and international best practice in order to enhance their productivity.

**Action:** Department of Enterprise, Trade & Employment

## Chapter 4: Enhancing Skills in Services

The education and training systems in Ireland have served the country well in the past. But as the economy becomes more globalised and services rise in prominence, there is an onus on these systems to adapt.

Services tend to be labour-intensive rather than capital-intensive, and they provide more high-skill jobs than manufacturing. The proportion of high-skill jobs in services has also increased substantially over the past twenty years.

The spectrum of skills that the services sector requires is particularly broad, and we need to ensure that the demand for skills is met across that spectrum. In this regard, the implementation of the National Skills Strategy is of crucial importance. We also need to look at how we attract and retain talent on a global basis via targeted changes to immigration regulations.

This chapter looks at a number of aspects of the skills requirements of services, including:

- Ireland's educational and skills-training performance compared with that of other countries;
- The increasing demand for skills in the economy in general and specifically in services;
- The role of the State in investing in skills development;
- How the demand for skills is affected by the nature of services and by the business models in services companies; and
- Some specific skill requirements that have already been identified.

### 4.1 Education and Training in Ireland

Educational attainment in Ireland has improved significantly in recent years, but despite this, when compared with other countries, Ireland's performance is mixed. For example, we exceed the OECD average for the proportion of the labour force that has attained a third-level qualification, but we lag behind the average for the proportion that has completed formal second-level education. Figure 4.1 shows the proportion of the population with different levels of education in a number of countries, for a broad cross-section of the total population (aged 25 to 64) and for a younger group (aged 25 to 34). The differences between the two age cohorts show a trend that is common in almost all countries: the proportion of the population with high skills is increasing and the proportion with low skills is decreasing. (The UK is exceptional in showing a rise in both high skills and low skills.) Nonetheless, the right-hand graph illustrates that low levels of educational attainment are not simply a legacy issue - a significant proportion of young people continue to finish formal education without a Leaving Certificate or equivalent qualification.

Figure 4.1: Population by Highest Level of Education Attained, 2005



Source: OECD Education at a Glance 2007

Ireland's average performance in the OECD's most recent Programme for International Student Assessment<sup>24</sup> is also a cause for concern. Irish students ranked highly in literacy, but were only average in mathematics and slightly above average in scientific literacy.

The Expert Group on Future Skills Needs (EGFSN) addressed these issues in its National Skills Strategy<sup>25</sup>, which sets out clear and achievable long-term objectives for education and training. The focus of the National Skills Strategy is on developing Ireland as a knowledge-based, innovation-driven, participative and inclusive economy with a highly skilled workforce, and this vision has been taken up by the Government.

## 4.2 Increasing Demand for Skills

As already referenced in section 1.1.2, while employment in the services sector includes some low-paid, low-skill occupations, the services sector consistently provides more high-skill jobs than the manufacturing sector - Figure 4.2 shows the contribution of low, medium and high skilled workers to the Irish economy (in terms of hours worked) over the period 1988 - 2005. Particularly notable is the performance of the Personal Services sector, where the proportion of high-skill jobs has quadrupled while the proportion of low-skill jobs has halved since 1988.

<sup>24</sup> [www.pisa.oecd.org](http://www.pisa.oecd.org)

<sup>25</sup> EGFSN (2007), Tomorrow's Skills: Towards a National Skills Strategy, Forfás

Figure 4.2: Hours Worked by Skill Level (Share in Total Hours)<sup>26</sup>



Source: EU Klems Database 2007

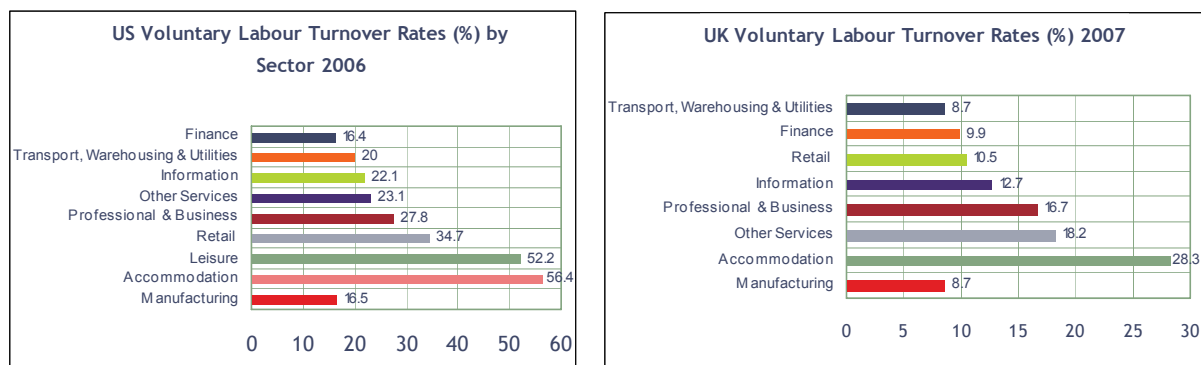
### 4.3 Investment in Skills for Services and the Role of the State

Of their nature, services tend to be labour-intensive. For the most part therefore, productivity gains in services require investment in people. Not all companies, however, are able or willing to invest in staff training and education. The two particular reasons most often cited relate to company size and staff turnover rates:

- **Company size:** the majority of services companies are small, with education and training needs that are quite different from those of larger companies, both in terms of course content and delivery mechanisms.
- **Staff turnover rates:** relatively high staff turnover in services (see Figure 4.3) means that the productivity benefit of training very often does not accrue to the company that facilitates it.

<sup>26</sup> Note that due to changes in classifications, there is a break in the data between 1992 and 2000. As a result, the 1996 data deviates slightly from the observed trend in some cases.

Figure 4.3: Voluntary Labour Turnover Rates (%) by sector<sup>27</sup>



Source: US Department of Labour & CIPD Annual Report

In such cases where companies and individuals do not have the incentive to fully resource training and education, there is a strong case for State intervention, in particular because the return on investment is likely to be spread widely across the economy and society as a whole. Such intervention is likely to be most successful where it is accompanied by a strong encouragement to individuals and companies to take responsibility for their own training and education needs.

In this context, the implementation of the National Skills Strategy is of critical importance, and the EGFSN is currently examining a range of incentives designed to increase participation in lifelong learning and in-work education and training.

The Government's commitment to this area is evidenced by the appointment of a Minister of State with Responsibility for Lifelong Learning in 2007, and by the recent establishment of a group to oversee the implementation of the NSS.

#### 4.3.1 Immigration policy

In the context of skills shortages, it is important to maintain flexible, efficient and market-relevant migration policies. Certain skill-sets (foreign cultural and language skills for example) can often only be sourced abroad, and sectors that depend on these types of skill sets should be accommodated where the economic rationale justifies non-EEA immigration.

In 2007, the Department of Enterprise, Trade & Employment changed the regulations regarding immigration from non-EEA countries for certain categories of high-skill workers, by providing permanent Green Cards in conjunction with temporary work permits. This is an important development, as it affords firms the flexibility to source key skills globally, and offers competitive advantage over locations with more restrictive policies. These arrangements should be continually monitored and adjusted to ensure they continue to meet the needs of industry. In particular, the list of occupations eligible for Green Cards should be revised regularly to reflect the needs of emerging service businesses.

<sup>27</sup> No suitable Irish data was available to illustrate employee turnover.

Similarly, the passage of the Immigration, Residence and Protection Bill 2008 will greatly enhance Ireland's ability to compete for talent on a global basis, as it will remove inconsistencies between the economic migration regulations and other regulations governing family reunification and long-term residency. This will also make Ireland a more attractive location for highly qualified people.

Migration policies and regulations should also facilitate the entry of non-EEA students into Ireland for the purposes of study, subject to security requirements. This will contribute to the achievement of Ireland's longstanding ambition of becoming an international education centre<sup>28</sup>.

## 4.4 Skills and the Nature of Services Businesses

The skill requirements of the services sector are different from those of the manufacturing sector - services tend to be more customer-oriented, and can be produced and consumed in a single transaction. These characteristics mean that people working in services rely more on cognitive skills and mental faculties, rather than on manual dexterity and craft skills, and they need a broad frame of reference rather than a narrow specialism. Many work in an interpretive context, and need generic and personal skills, as virtually all service jobs involve dealing with customers, managers, suppliers or colleagues. Demand is also increasing for enhanced management, sales, marketing and language skills.

### 4.4.1 Generic skills

Many service businesses involve close interaction between vendor and customer. Employees in these businesses need interpersonal and generic skills<sup>29</sup> in order to optimise their productivity. These skills bring added-value to other, job-specific or technical skills, and are required to some extent by all workers, in all sectors and occupations. Individuals who have these generic skills are better able to learn, adapt, and think independently. They can also cope better with technology, and are considerably more employable.

The growing requirement for interpersonal and generic skills applies to both high-skill and low-skill service occupations. In today's workplace, generic skills are becoming much more important, even in technical sectors, where engineers may be hired initially for their technical abilities, but subsequently promoted for their social skills. Generic skills include the following<sup>30</sup>:

- Basic/fundamental skills – such as literacy, numeracy and using technology;
- People-related skills – such as communication, interpersonal, team-working, customer-service skills; and
- Conceptual/thinking skills – such as collecting and organising information, problem-solving, planning and organising, learning-to-learn skills, innovation and creative skills.

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<sup>28</sup> The International Education Board was established by the Irish Government in 1993 to facilitate and support the development of Ireland as an international education centre.

<sup>29</sup> There is no widely agreed and adopted taxonomy for generic skills, although several plausible variants exist. 'Generic', 'horizontal', 'basic', 'soft', 'key', 'transferable', 'employability' are among the more common classifications used when broadly referring to combinations of skills and personal attributes which are deemed essential to be effective in the workplace of the 21st century.

<sup>30</sup> EGFSN (2007), The Changing Nature of Generic Skills, Forfás. The full report is available at [www.skillsstrategy.ie](http://www.skillsstrategy.ie)



Other skills, such as scientific literacy, enterprise skills and possibly broader community skills might also be included. In general, as specialist skills become more pervasive, they tend to become generic - for example, IT skills were once considered specialist, but today are a basic requirement for most workers.

Research in Ireland suggests that there are some deficiencies in the supply of generic skills. New graduates, for example, often lack business knowledge, project management skills, communication and problem solving abilities, and team-working abilities. To address these deficiencies in the longer term, generic skills must be embedded in the curricula of the formal education system at primary, secondary and tertiary levels. A number of initiatives are already under way to address this issue. For example, generic skills are now being measured at various levels in the National Framework of Qualifications, and the National Council for Curriculum and Assessment is developing new secondary curricula that incorporate generic skills. Third-level institutions in particular need to develop a better understanding of the generic skills needs of the enterprise sector and to ensure that technical courses incorporate elements aimed at generic skills development.

While formal education contributes to the development of generic skills, much depends on experience. Individuals build up their skills incrementally and iteratively as they move from the education system to work and from one set of tasks to the next. This needs to be recognised so that workers can systematically and continuously improve their interpretive abilities, whatever their occupation or level of responsibility. Employers can accommodate the learning needs of employees in two main ways:

- Providing an integrated learning environment that offers employees the opportunity to learn on the job - ideally, such learning should be underpinned by an accreditation system that recognises prior acquired learning. Innovations in high-performance work organisation, such as total quality management and self-managed teams, can also increase productivity by giving workers more discretion and autonomy.
- Facilitating employee participation in off-site education and training<sup>31</sup>. However, the supply of courses must match the demand: firms and employees generally prefer short, flexible, high-impact courses and self-managed courses that provide the participant with a greater sense of ownership and responsibility.

The social partners should support the NCCA in its process of curricula reform, so that the education system continues to deliver the skills required by both enterprise and society.

#### 4.4.2 Humanities and social science skills

The humanities and social sciences (HSS) play a very important role in our wider society and in the economy, and the skills and wider competencies that students of these areas acquire are becoming increasingly relevant within the services sector. For example, HSS studies promote the development of the reflective and analytical skills that are key inputs into the innovation process.

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<sup>31</sup> The EGFSN are currently examining mechanisms to incentivise employee participation in education and training - they are examining paid learning leave, learning accounts, voucher systems, brokerage systems and tax credits as possible tools to increase take-up. They are also considering the operation of co-financing arrangements.

The skills of HSS graduates are highly valued by sectors such as financial services, professional services, communication and distribution services, and also in health, education and social services. These are also sectors that offer strategic development opportunities.<sup>32</sup> It is therefore important that the HSS education and research base be strengthened so that it can continue to contribute to the achievement of an innovative and knowledge-based economy and society.

The HEA is currently carrying out a national foresight exercise for HSS which is particularly welcome in this regard. Also valuable is the work of the Royal Irish Academy's Working Group on the Arts, Humanities and Social Sciences in the Knowledge Society.

#### 4.4.3 Combining generic skills with science, technology and innovation skills

In the services sector, generic skills are very often combined with science, technology and innovation skills to create value in products and services. For example, within the EU25, some 53.6 million people employed in services have third-level S&T qualifications<sup>33</sup>, whereas the equivalent figure for manufacturing is 9.43 million. In Ireland in 2004, 476,000 people with S&T qualifications were employed in services, compared with just 88,000 in manufacturing.

For these reasons the new focus on generic skills is complementary to and not an alternative to the established strong emphasis on science, technology and innovation that is an essential part of the Government's strategy in building a knowledge economy.

### 4.5 Skills and Services Business Models

Changing business models in the services sector are also driving the demand for people who can think creatively, solve problems, spot opportunities and introduce innovation into both service offerings and business processes. The demand is for people who have both sector-specific skills and a good understanding of business practices and markets.

#### 4.5.1 Creative skills, design skills, and skills for innovation

Creativity, design and innovation can be applied to products or services, to business processes or to management styles. They are also essential for success in business, and for success in services business in particular. The dynamic nature of services requires a workforce that is comfortable in an ever-evolving work environment, where a premium is placed on creative and lateral thinking, new ideas and innovation.

**Recommendation 4.1:** Study the skills implications of the increasing importance of creativity, design and innovation in the workplace. Identify the actions educators and training providers should take to respond effectively to the needs.

**Action:** Expert Group on Future Skills Needs.

<sup>32</sup> Enterprise Strategy Group, *Ahead of the Curve, Ireland's Place in the Global Economy*, Forfás 2004.

<sup>33</sup> Eurostat, *High Tech Industries and Knowledge Based Services, Statistics in Focus, Science and Technology 13/2006*

#### 4.5.2 Hybrid technical and business skills

In addition to the skills outlined above, demand is likely to increase for particular combinations of skills, both specialist and generic. Manufacturing firms will need service skills, as they increasingly engage in service-related activities, and service firms will need skills more usually associated with manufacturing, as they adopt manufacturing process concepts (such as Lean techniques) to increase their productivity. Individuals who can combine discipline-specific technical knowledge with entrepreneurial skills and an ability to think creatively will be more sought after in the future. As managers and employees of innovative service firms, they will need to be able to communicate knowledgeably with people from other backgrounds, such as scientists, designers and engineers.

Satisfying this demand will require employees and managers who are able to acquire and use knowledge from disparate disciplines in a coherent and effective manner, combining technical knowledge with business acumen and communication skills. Furthermore, the dynamic nature of service business requires managers with excellent change management skills.

Elsewhere, these disciplines are being brought together and developed as Service Science, Management and Engineering, a distinct field of study that focuses on the services-led economy and incorporates computer science, management science and social science. For example, the University of California, Berkeley, and other US universities have established programmes in service science, and universities in Europe and Asia are also creating programmes in this area.

In Ireland, some progress has been made in this direction, notably in the Business Information Systems degree course in University College Cork<sup>34</sup> and the Management Science and Information Systems Studies course in Trinity College Dublin<sup>35</sup>. However, Service Science, Management and Engineering has not been adopted widely here, and certain institutional barriers will have to be overcome before it is. Traditionally, education providers have attempted to equip graduates with specialised, job-specific knowledge, and this is reflected in their institutional structures.

**Recommendation 4.2:** Provide integrated inter-disciplinary education for service activities along the lines of the Services Science, Management and Engineering programmes offered in the US and the UK.

**Action:** Higher Education institutions.

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<sup>34</sup> BIS students study a mix of business subjects such as Economics, Accounting, Management and Marketing, alongside a range of IT related subjects such as programming, web development, networking, systems analysis and database development.

<sup>35</sup> The MSISS programme is designed to bridge a gap between business, information technology and management science.

## 4.6 Sector Specific Skills for Services

### 4.6.1 Current shortages

The Skills and Labour Market Research Unit (SLMRU) has identified a number of specific occupations in which the demand for skills exceeds supply. Many of these are service occupations (Table 4.1), and a number have been the subject of specific sector studies in recent years<sup>36</sup>.

Table 4.1. Occupations in short supply, by service sector

Service Sector	Occupations in short supply
Financial Services	Accounting (financial reporting and audit) Quantitative finance (risk and investment analysis) Compliance (regulatory issues)
Engineering	Engineers of all types, particularly at technician level
Information Technology	Software engineers Computer analysts/programmers
Scientists	Technicians
Healthcare	Medical practitioners Dentists Therapists Radiographers
Transport and Logistics	Heavy goods vehicle (HGV) drivers Freight forwarding Custom clearance Import/export documentation processing staff.
Sales	Sales representatives with technical, product and sectoral knowledge
Catering	Chefs

Source: Skills and Labour Market Research Unit, FÁS (2007), National Skills Bulletin 2007

### 4.6.2 The importance of mathematics

While each of the services sectors has distinct requirements and challenges, a number of the largest sectors have one essential skills requirement in common: mathematics. In particular, many of the high-value functions in the ICT and International Financial Services sectors require considerable mathematical skills.

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<sup>36</sup> All of the EGFSN's sectoral skills studies can be found at [www.egfsn.ie](http://www.egfsn.ie).

For that reason, it is of some concern that the proportion of candidates taking higher-level mathematics in the Leaving Certificate has declined sharply, from 25 percent in 2001 to 17 percent in 2007<sup>37</sup>. While considerable effort has been expended in trying to arrest and reverse this trend, more needs to be done.

Both the mathematics curriculum in primary schools and the Junior Certificate mathematics syllabus have been revised. The National Council for Curriculum and Assessment has developed Project Maths - a strategy for the development of curriculum, teaching, learning and assessment in mathematics for post-primary schools, with increased emphasis on problem-solving skills, on context and on application. Implementation of changes to the syllabus will be supported with professional development of teachers, the provision of classroom support materials and incremental reform of mathematics examinations.

These developments are welcome, but there are a number of additional actions that would support the development and teaching of mathematics, including:

- **Bonus college entry points:** students are currently disincentivised from taking higher level mathematics in the Leaving Certificate by the disproportionate effort needed to achieve high grades (and high points for admission to third level). To overcome this, the Department of Education & Science should work with the third-level institutions to develop and introduce a system of bonus college entry points for higher level Leaving Certificate mathematics.
- **Professional development of primary and secondary teachers:** this could be enhanced by developing a Professional Masters Degree and a part-time Higher Diploma in Mathematical Education. A four-year Honours Degree in Mathematical Education should also be introduced to provide another source of second-level mathematics teachers.

**Recommendation 4.3:** Develop and introduce a system of bonus college entry points for higher-level Leaving Certificate mathematics.

**Action:** Department of Education & Science.

**Recommendation 4.4:** Create a professional Masters degree and a part-time Higher Diploma in Mathematical Education. Introduce a four-year honours degree programme in mathematical education.

**Action:** Department of Education & Science.

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<sup>37</sup> EGFSN (2007), *Tomorrows Skills: Towards a National Skills Strategy*, EGFSN

#### 4.6.3 Particular needs of the Information and Communications Technology sector

The Irish ICT sector has largely recovered from the global downturn in market demand that began in 2000. Total employment in ICT in Ireland peaked at over 80,000 in 2000 before falling to approximately 64,000 over the following three years. It now stands at approximately 70,000. A recent report notes that an increasing share of ICT employment is accounted for by people with high skills, reflecting a shift towards software and away from traditional employment in electronics and hardware<sup>38</sup>.

From a skills perspective, all companies are operating in a global labour market and draw from both locally recruited graduates and a substantial inflow of migrants. The EGFSN forecasts that supply of local graduates (particularly at NFQ Level 8) will be insufficient to meet expected demand. For that reason, it seems likely that inward migration will still be required to meet the skills needs of the sector.

In order to improve the indigenous supply of ICT skills, the following recommendations deserve renewed emphasis:

- The development of a strategic approach to communicating career opportunities and skills needs;
- The broadening of the base of recruits for high-level ICT courses;
- The improvement of intake at undergraduate level; and
- Measures to ensure that third-level courses reflect the diverse needs of the sector.

#### 4.6.4 Particular needs of the International Financial Services sector

The International Financial Services sector in Ireland has grown dramatically over the past two decades and currently employs approximately 22,000 people - 9,000 in investment management, 10,000 in banking and capital markets, and 3,000 in insurance. This number is expected to rise to approximately 30,000 by 2012.

A recent report on the financial services industry<sup>39</sup> highlighted the supply of high calibre workers as one of Ireland's key strengths, and one that is especially important to multinational companies. It also identified shortages of suitably qualified individuals in areas requiring quantitative, actuarial and mathematical abilities, specialist taxation, risk management, compliance and legal skills, and experienced fund accountants. As a result, some parts of the industry experience difficulties retaining staff. Potential future growth is also likely to be constrained by a lack of people with skills in areas such as derivatives structuring and credit analysis.

Unlike their Irish counterparts, some international educational institutions offer courses dedicated to financial services, in which students can specialise in particular sectors. There is also greater collaboration between institutions and industry. If the potential of the financial services industry in Ireland is to be realised, Irish educational institutions will have to cultivate closer relationships with industry, and ensure that teaching and learning are informed by those relationships and by ongoing research in the sector.

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<sup>38</sup> EGFSN (2008) Future Requirements for High-level ICT Skills in the ICT sector

<sup>39</sup> EGFSN (2007), The Future Skills and Research Needs of the International Financial Services Industry

## Chapter 5: Fostering Innovation in Services

Innovation is a creative process that involves exploiting new ideas, doing or making something new, or doing or making something in a new way. The innovation can be new to the market or new to the company. Innovation has become a major focus of industrial policy in recent years, and some measures have already been put in place to stimulate innovation, particularly in manufacturing industry.

With the increasing importance of services in the economy, we need to look at how policy can stimulate innovation in services. Up to now, innovation in services has not had the same level of attention as innovation in manufacturing - largely because it is not quite so visible, so 'big ticket' or so technology-based. In the years immediately ahead, innovation in services will be a key driver of performance, not only in services industries, but in the economy as a whole. The very size of the services sector means that innovation in it can have a greater leveraged value across the entire economy.

This chapter deals with innovation specifically as it relates to services and looks at ways in which it can be fostered. It covers the following topics:

- The importance of innovation in services, and why we need new policies to support innovation in services more efficiently;
- How innovation in services is currently measured and benchmarked, including the impact of investment in R&D and the factors that constrain innovative activity in the sector;
- Considerations that must be taken into account in a new policy framework; and
- Public policy measures that we can take to support innovation in services R&D.

### 5.1 The Importance of Innovation in Services

The market within which Irish enterprise operates is increasingly global, with intense competition both at home and abroad. Businesses must respond by staying ahead of the competition, not simply by producing more of the same at a cheaper price, but by responding to - or even anticipating - ever-changing customer requirements. They must deliver new and improved products and services, faster response times, imaginative combinations of products and services, better ways of delivering their offerings and more efficient operations.

In short, they must innovate - produce new goods and services or produce existing goods and services in new ways to win and retain customers. In a global economy, innovation is a key driver of improved output, employment performance and productivity growth. Most innovating firms increasingly realise that to differentiate themselves from their competitors, they need to add extra service functionality to both manufactured goods and services.

This is of particular importance to Ireland as the economy becomes increasingly knowledge-based. It is no longer feasible for Irish enterprise to survive solely by implementing ideas developed elsewhere - Irish firms must themselves create and exploit new knowledge in order to thrive.

This imperative has been recognised by Government, and has been a priority of public policy over the past decade.

### **5.1.1 Innovation is traditionally seen as technological**

While innovation is about producing new or better products or services, or producing products or services in new or better ways, it is most often described and discussed in terms of technology. Developments in technology can enable new products, improved products and more efficient production processes; the application of technology can facilitate better customer service.

Not all innovation is technology-based, however, and the non-technological aspects of innovation are much less well understood, studied and supported. Because technological innovation is better understood, it has received more attention, both from industry and from public policy-makers, in Ireland and elsewhere. For example, over the past decade, Ireland has invested heavily in developing a national innovation system, through the National Development Plan 2000-2006 and the Strategy for Science Technology and Innovation 2006-2013 (SSTI). It is envisaged that this investment will ultimately result in extensive technological innovation in Irish enterprise.

### **5.1.2 Services innovation is more often non-technological**

In the services sector, innovation is often based on the application of technology, but a significant proportion of services innovation is non-technological - for example, innovation in organisational structures or marketing approaches.

Innovation in services can be very interactive, multidimensional and incremental in character, and is generally harder to define precisely in terms of cause and effect. It may result from a wide range of activities, alone or in combination, including:

- New technology development and application of existing technology;
- Organisational developments related to service delivery;
- Changed customer interfaces and service delivery channels;
- Alterations in the business model or value chain; and
- New types of services or combinations of services.

Formal R&D is more often the exception rather than the rule in services companies, and in some cases, services R&D and innovation activities are 'hidden' under labels such as business development, service improvement, new service development, or client specific solutions, without being recognised as services R&D and innovation.

Furthermore, services firms often acquire new knowledge from external sources, such as training, patents, or licences. Their ability to exploit such knowledge is determined by their absorptive capacity, which in many cases is quite limited.

### **5.1.3 The dominant role of services in the economy**

Given that services play a dominant role in the economy and that technology is only one factor in services innovation, the emphasis of innovation policy on technology and manufacturing has become too narrow. In the years immediately ahead, innovation in services will be a key driver of performance, not only in services industries, but in the economy as a whole.



However, devising policies to support innovation in services is not easy. Such policies will need to recognise the differences between services and manufacturing, and take into account the different forms that innovation may take in services:

- New business models/concepts: A complete or substantial change in the way in which revenues and profits are earned;
- New customer/delivery interfaces: Improving the dynamic exchange of information between the customer and a service provider; and
- New service-product offerings: Analogous to innovation activity as generally conceived in manufacturing.

#### 5.1.4 New policies are necessary

To realise the growth potential of services and establish itself as a leader in services innovation, Ireland needs to formulate a coherent national policy for innovation in services. This will require policy makers and enterprise development agencies to broaden their concept of innovation to encompass the needs of services companies and non-technological innovation.

Innovation in services needs to be supported at a similar level to that of technological innovation in manufacturing, and it needs to be promoted with the same energy. A highly visible policy promoting innovation in services is required to deliver a strong message to business, education and government that innovation in services is vital to national competitiveness.

Policy changes are also necessary to improve collaboration between service firms, and between service firms and Higher Education Institutes and Research and Technology Organisations. It is important to create a culture that nurtures R&D and innovation in individual services firms, in services industry sectors, and in the higher education sector<sup>40</sup>.

#### 5.1.5 How other countries are facing the challenge

Ireland is not alone in addressing the challenge of enhancing levels of innovation in services. Many countries are actively working on policies relating to services innovation. The issue is also under active consideration at European Union level. While there are as yet very few proven policy support measures internationally, a number of countries are running pilot schemes aimed at stimulating innovation in service companies. For example:

- **Finland** - The SERVE<sup>41</sup> programme by TEKES promotes research in innovative service concepts and internationally competitive business models; the Tourism and Leisure Services R&D programme supports R&D in the provision of leisure services;
- **Sweden** - The Innovation in Services Research and Development programme offers new R&D incentives for services in market strategies, process development and organisational development;

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<sup>40</sup> Reneser. 2006. Research and development needs of business related service firms.  
<http://dialogic.themaportaal.nl/files/RENESER%20report%20k%20b%20%20printversie%20final.pdf>

<sup>41</sup> [www.tekes.fi/serve](http://www.tekes.fi/serve)

- **Germany** - Innovation with Services is a R&D programme to develop innovation and its management in the fast-growing services sectors; the High-Tech Strategy programme seeks to increase interaction between services and 17 promising high-technology fields; and
- **The Netherlands** - Innovation Vouchers were introduced to encourage businesses to carry out R&D with the help of external expertise.

**Recommendation 5.1:** Extend Ireland's national innovation policies and strategies to encompass innovation in services and continue the progress made in implementing the Strategy for Science, Technology and Innovation 2006-2013 (SSTI).

**Action:** Department of Enterprise, Trade & Employment

## 5.2. The Need for Benchmarks: Measuring Innovation Performance

As outlined above, innovation in services is different from innovation in manufacturing, and it is harder to define and harder to measure. Nevertheless, any efforts to stimulate innovation in services must be preceded by some base measurement, so that the return on investment can be assessed.

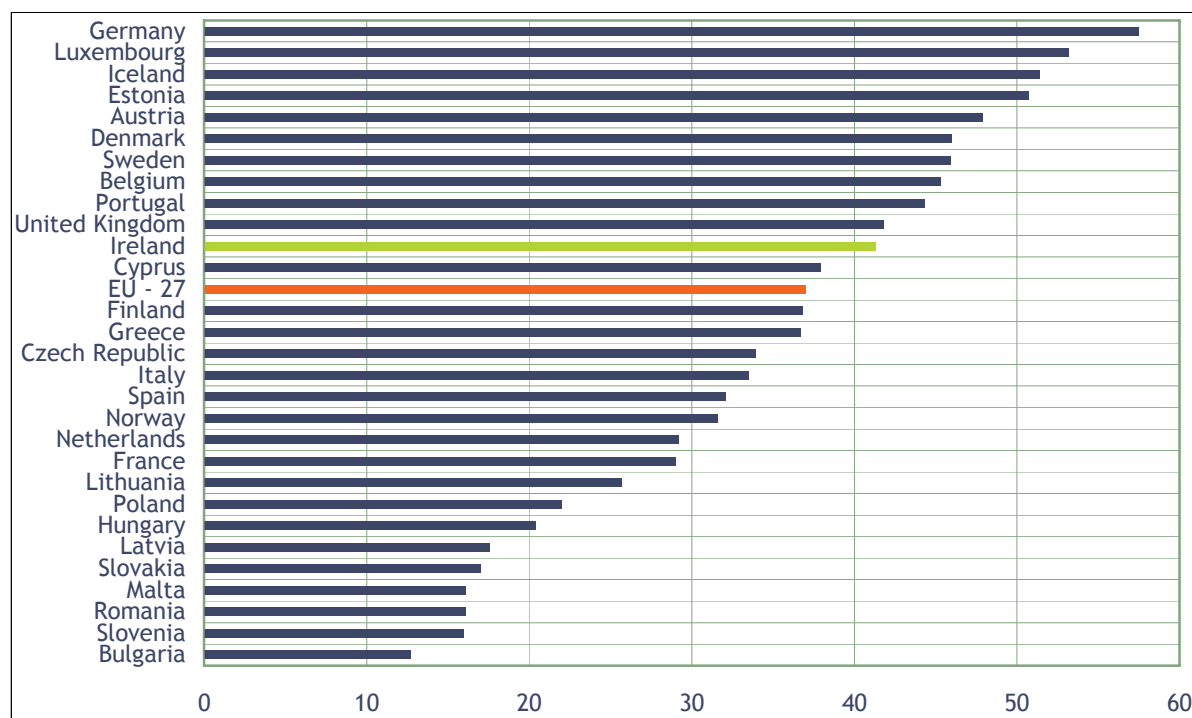
The size of the services sector and wide range of activities it encompasses represent a significant challenge to the development of meaningful indicators. This in turn presents a challenge for policy analysis and formulation.

Assessing Ireland's performance in relation to services innovation and comparing it with that of other countries is difficult. Industrial innovation depends on knowledge stocks, whereas innovation in services depends on knowledge flows. In addition, technological innovations can often be protected by patenting (which is a key measure of innovation in the manufacturing sector), whereas non-technological innovations seldom can.

Services-compatible indicators are currently constructed using data from the European Community Innovation Survey, which is carried out every two years. The most recent survey covers innovation activity in the period 2004-2006. This shows that, of the 27 EU Member States, Ireland ranks 11th for innovation-intensity in services firms<sup>42</sup>. Of services firms in Ireland, 41.3 percent are considered to be 'innovation active', a higher percentage than for instance Finland, which in other respects is considered to be highly innovative. Also, Ireland performs better than the EU27 average, which stands at 37 percent. At the same time, Ireland performs less well than Sweden, another country considered to be highly innovative (Figure 5.1).

<sup>42</sup> Note that only firms with 10 or more employees are included. Also, only services up to NACE 74 are included in the survey (this excludes public administration and defence, education, health and social work, and other community, social and personal service activities).

Figure 5.1: Innovation activity rate - % of all service sector firms involved in product and process innovation (Ireland - 2006, Others - 2004)



Source: Forfás 2006, CIS4<sup>43</sup>

### 5.2.1 Innovation in Irish services firms

The type and level of innovation activity in Irish services firms varies with the type and size of firm.

- Larger firms are more likely to innovate than smaller ones, with an activity rate of 63.1 percent compared to 38.1 percent;
- Firms engaged in technological services are the most likely to innovate, with an activity rate of 58.8 percent; and
- Transport services firms are the least innovation-active with 31 percent.

### 5.2.2 Investment and impact

Services firms in Ireland spent a total of €1.9 billion on innovation in 2006 (1.4 percent of turnover):

- 42 percent on R&D within the firm;
- 4.5 percent on the acquisition of external knowledge; and
- 45 percent on the acquisition of equipment and software.

<sup>43</sup> Forfás Innovation Survey. 2006. The Fourth Community Innovation Survey - First Findings. [http://www.forfas.ie/publications/forfas060920/forfas060920\\_innovation\\_survey\\_webopt.pdf](http://www.forfas.ie/publications/forfas060920/forfas060920_innovation_survey_webopt.pdf)

While the turnover from new products / services is twice the innovation investment (3.2 percent), companies' turnover came in the main from unchanged products/services. A similar pattern has been seen internationally - for services firms, innovation in business models, in company networking and in customer experiences is more profitable than new or improved products/services.

### 5.2.3 Constraints on innovation in services companies

Three main factors were identified that constrain further development of innovation:

- The lack of innovation funds from within the firm;
- The high costs of innovation; and
- Uncertain demand.

## 5.3 Developing a Services Innovation Policy: Identifying Opportunities

The very size of the services sector means that innovation in it can have a leveraging effect across the entire economy. The policy community in Ireland (in line with other countries) faces challenges in devising policy for services innovation. The multidimensional character of service innovation makes policy formulation difficult: it is a significant challenge to accommodate such variety into a coherent and integrated services innovation policy. It is also inherently difficult to characterise the services sector as a whole, and that makes the task of devising policy that can work across the sector all the more complex.

The development of a services innovation policy presents an important opportunity to market Ireland as a global leader in the area of services innovation, with considerable potential to attract and embed Foreign Direct Investment (FDI). The Government and the development agencies have the opportunity to adopt a coherent services innovation support framework, and this too can contribute towards attracting FDI within the broader Irish economy. Such an objective is consonant with recent OECD and EU interest<sup>44</sup> in services innovation as a driver of global competitiveness.

### 5.3.1 Building the Policy Framework

Services and the services sector require an innovation policy that is finely attuned to its distinct needs, and one that takes into account both the technological and non-technological components of services R&D and innovation. Policy must also accommodate the multidimensional characteristics of the services sector, its diversity, intangibility and the often incremental nature of service innovation. Furthermore, it must dovetail with existing innovation policy and facilitate policy integration with non-technological innovation - this is particularly important for dealing with the 'servicisation' of many manufacturing companies who increasingly see their product and service offerings as part of a coherent continuum.

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<sup>44</sup> At EU level, a policy for R&D in services is being finalised by CREST<sup>44</sup> for final endorsement by the EU Commission, DG Research, and will be recommended for adoption by the Member States.

Internationally, there is a trend towards integrated policymaking that combines support across a number of policy domains, which are also relevant to traditional RTD policies. The policy initiatives that are required can be categorised as follows:

- Horizontal policies that are not directly related to innovation, but are important in facilitating and supporting innovation activity in services - these include policies on general business supports, intellectual property, regulation, trade policy, taxation and so on;
- Vertical policies that include more sector-specific public supports for services innovation - for example, improving access of services firms to fiscal support programmes, stimulating non-technological innovation in the services sector, encouraging hybrid technology-service innovation, and so on;
- Both existing and new policies need to be broadened and deepened to make them more accessible and applicable to services innovation. Such initiatives might include broadening R&D tax credits or active fostering of innovation services functions, such as innovation management and entrepreneurship; and
- Targeted policies - the diversity of the services sector lends itself to targeted measures that can be used to stimulate very specific areas. These might include, for example, Knowledge Intensive Business Services (KIBS) and non-technology oriented innovation (such as organisational and marketing initiatives). Issues that might be addressed include the lack of adequate financial support and of venture capital, intellectual property protection, and the need to develop vocational and innovation management training targeted to new skills for services.

### 5.3.2 The importance of the policy environment

The wider policy environment has a crucial role in the overall policy framework for innovation, to drive its potential as well as deal with existing barriers. The following policy areas in particular provide opportunities to drive services innovation and require attention in the formulation of services innovation policy:

- Regulation: well designed regulations tend to promote investment in innovation and the innovation capacity of services companies. The regulation of areas such as intellectual property, employment law, quality assessment, standardisation and certification all provide opportunities for innovation as companies respond in ways that enable them to achieve competitive advantage.
- Competition: among the factors that encourage companies to create competitive advantage through services innovation are competition laws, the effects of the EU Services Directive, and state aid regulation.
- Intellectual property rights: generally, effective IP protection is a significant motivation for investment in innovation and the intensity in innovation activity. Many service sector innovations do not meet the requirements for protection through patenting. Less well developed mechanisms such as design, trademarks and copyrights are generally used by services companies. Increasingly, informal methods of IP protection are emerging, such as secrecy, documenting and publishing.
- Standards can provide useful platforms for the exchange of knowledge, and help to overcome barriers to trade and to innovation. Open standards are particularly useful in this regard -

for example, open standards led to the development and almost universal uptake of the Internet and to the emergence of the industry that supports and exploits it. The opportunities that standards, and open standards in particular, offer for service innovation thus need to be kept in mind.

- Demand-side policies have considerable potential in the promotion of innovation<sup>45</sup> - these include public procurement policies, export promotion, R&D tax credits, as well as measures to increase customer awareness of and demand for innovative products and services.

**Recommendation 5.2:** Promote the development and use of open standards and, where possible, specify the use of open standards in public procurement.

**Action:** Department of Enterprise, Trade & Employment, National Standards Authority of Ireland, Government departments and State agencies.

### 5.3.3 How Well Do Current Supports Work?

In Ireland, the enterprise development agencies provide a comprehensive portfolio of support measures, which are primarily aimed at stimulating technological development in manufacturing enterprises. While some of these support measures are accessible to services companies, others just do not fit very well in the services context, and the participation of services companies in innovation programmes has been correspondingly low.

A recent 'policy and support mapping' exercise carried out by Forfás highlights implicit disincentives to the participation of services companies in innovation programmes. This was most acutely felt among companies who do not view technology-based R&D as an activity relevant to their business or its development. The exercise examined a wide range of support measures, placing them in the following categories:

- Supply side measures targeted at businesses, including financial and non-financial support for R&D and innovation in companies;
- Demand side measures that target customers and markets, including efforts to support the capacity of companies to innovate, or to influence the likely success of innovation;
- Internationalisation measures that seek to galvanise innovation and growth by focusing on service exports and Foreign Direct Investment; and
- Framework conditions and activities designed to put in place the general business environment that can facilitate and encourage innovation - this includes effective regulatory regimes, competition, and protection of intellectual property rights.

The mapping exercise showed that very few supports in Ireland have been designed specifically for services functions and/or services enterprises, and that even fewer have been designed for services and innovation. Also, most of the support measures that are in place are on the supply side and are

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<sup>45</sup> European Commission, 2007, Towards a European strategy in support of innovation in services: Challenges and key issues for future actions. Commission staff working document 1059, Brussels, Belgium. and Georghiou, L., 2006, Effective innovation policies for Europe - the missing demand-side. Paper prepared for the project Globalisation Challenges for Europe and Finland.

not very readily available to services companies. Where they are available, they tend to be focused on product-style innovation within a service context. Support for the two other broad types of services innovation (customer interface and business models) is often found in policy measures that are not explicitly considered to be innovation supports - for example, those focused on improving export performance among SMEs. Similarly, support measures for business model innovation can be found in areas such as integrated support for entrepreneurship and organisational development and not in any clearly defined innovation support measure.

#### 5.3.4 Building a Support Framework for Services Innovation

For service companies who currently find that support measures are not readily accessible to them, the design and provision of more 'services-friendly' policy and supports are essential. The development of such policy and supports must take two complementary approaches in order to stimulate R&D and innovation among services enterprises:

<b>1</b>	<b>Make existing measures more accessible to services</b>  Existing business support for non-technological innovation must be adapted and more specifically attuned to the challenges faced by those undertaking services innovation.  This will require development agencies to facilitate non-technological innovation and innovation outside of manufacturing industry. Such an initiative may be accommodated by developing a new business support framework for services innovation, including a review and 'service proofing' of existing and proposed support mechanisms.
<b>2</b>	<b>Develop services-specific measures</b>  A system of dedicated business supports is required to meet the specific needs of enterprises developing services functions and embracing innovation. The range of support measures has been identified in the mapping exercise, with the following objectives: <ul style="list-style-type: none"><li>▪ To address the drivers and barriers that impact upon the development of new business models, customer interfaces and services products; and</li><li>▪ To take account of the variety of different innovation processes that service companies may utilise such as: systematic R&amp;D, fast-track or incremental, and technological or non-technological innovation.</li></ul>

In parallel with the development of these complementary approaches, there is a need for a better understanding of the design, delivery and uptake of services innovation policies and support programmes. This will require policy makers, policy deliverers and enterprises to develop a deeper awareness and appreciation of services innovation. It will also require a broader dissemination of the very idea of services innovation among the enterprise community.

**Recommendation 5.3:** Identify, develop and put in place business support measures to promote R&D and innovation capability in services companies and to facilitate the development of services by manufacturing enterprises. The TEKES SERVE programme should be considered as a model.

**Action:** Enterprise Ireland, IDA Ireland.

## 5.4 Supporting Innovation in Services R&D

Up to now, there have been very few public policy measures that have specifically targeted R&D in services. One of the reasons for this is that eligibility for support is usually determined by reference to the Frascati<sup>46</sup> definition of R&D which requires ‘... an appreciable element of novelty and the resolution of scientific and/or technological uncertainty ...’. The development and early adoption of an updated definition for R&D that could include more service-oriented research is an essential step towards more favourable framework conditions for R&D in services.

### 5.4.1 Building national R&D capability

Science Foundation Ireland’s (SFI) remit is to build the national R&D capability in ICT, Biotechnology, and Sustainable Energy<sup>47</sup>. While these domains are primarily technology-and manufacturing-based, they each have significant service elements. Throughout industry, the demarcation between products and services is becoming increasingly blurred. Knowledge Intensive Business Services (KIBS), such as e-based commerce and communication, depend to a considerable extent on ICT as an enabling platform, and many firms increasingly offer combinations of physical products and complementary services.

SFI support for R&D in services would promote a systemic approach to the technological domains the agency supports, promoting the idea that technological and non-technological R&D, manufacturing and services R&D, and innovation are typically interdependent and require mutual support.

Enterprise needs to collaborate with the HEIs to create opportunities for innovation, and this will require a dedicated industry-led Services Competence Centre<sup>48</sup>. Such centres were proposed in the SSTI to address the key issue of building and reinforcing areas of strength within industry and academia and ensuring that these are highly networked with each other.

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<sup>46</sup> The Frascati Manual is a document stipulating the methodology for collecting and using statistics about research and development in countries that are members of the Organisation for Economic Co-operation and Development (OECD). The Frascati Manual, developed by NESTI group (National Experts on Science and Technology Indicators), was very important for understanding the role of science and technology in economic development. The document primarily deals with measuring the resources devoted to technological R&D. The definitions provided in this document became internationally accepted and serve as a common language for discussions of science and technology policies. Over the past 40 years, the NESTI group has developed a series of documents, known as “Frascati Family” that includes manuals on R&D (Frascati Manual) and innovation (Oslo Manual). Adapted from [http://en.wikipedia.org/wiki/Frascati\\_Manual](http://en.wikipedia.org/wiki/Frascati_Manual)

<sup>47</sup> Announcement by Minister Michael Martin, DETE, at Energy Forum 2008. <http://www.entemp.ie/press/2008/20080306.htm>

<sup>48</sup> Competence Centres are collaborative entities established and led by industry that are resourced by highly-qualified researchers associated with research institutions who are empowered to undertake market focussed strategic R&D for the benefit of industry.



**Recommendation 5.4:** Provide structured supports to develop an institutional capacity for R&D in services.

**5.5.1** Promote research of relevance to the service industries through the explicit involvement of services companies in Centres for Science, Engineering & Technology (CSETs) and Strategic Research Clusters (SRCs) across the domains of ICT, Biotechnology and Energy.

**Action:** Science Foundation Ireland.

**5.5.2** Facilitate the establishment of industry-led Competence Centres for services to stimulate research in services and collaboration between services companies and the research community.

**Action:** Enterprise Ireland and IDA Ireland.

#### 5.4.2 R&D tax credits

Tax measures can be an effective way of promoting intellectual assets such as R&D and innovation and creating a business-friendly environment. In line with the Frascati definition, the Revenue Guidelines in Ireland do not currently accept non-technological R&D and innovation as eligible R&D activities from a tax point of view. There is now an urgent need to review that definition and facilitate R&D in services.

Efforts are being made at EU and OECD levels to revise the definitions of R&D activity set out in the Frascati Manual to include more service-oriented research activity.

Elsewhere, Singapore has developed its own definition of R&D for Financial Services, which allows R&D tax incentives to apply to new or innovative financial services activities. This development is particularly relevant to Ireland, given that Singapore is a key international competitor in the financial services sector.

In the Netherlands, the current R&D tax credits system is aimed at promoting technical and scientific research and development, including technical feasibility, which aims to develop and/or improve physical products and production processes, including information and communication technology (ICT). In recognition of the increasing need to promote R&D in services, the tax credit mechanism is being expanded to accommodate and promote ‘the development of a new service based on software’<sup>49</sup>.

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<sup>49</sup> SenterNovem. 2007. Expansion of the WBSO with Services and ICT.

**Recommendation 5.5:** Expand the national R&D Tax Credit scheme to include services R&D and innovation by:

- Redefining R&D for the purpose of tax credits so that it encompasses services R&D; and
- Developing an R&D tax credits mechanism for services that is based on international good practice.

**Action:** Department of Enterprise Trade & Employment, Department of Finance.

### 5.4.3 Public procurement

Public procurement, when used strategically, can support the development and deployment of innovative products, processes and services. The EU-wide public procurement market was estimated at €1,500 billion or 16 percent of the GDP of the European Union in 2006. The EU Commission published in 2007 a Public Procurement Good Practice guide that promotes innovation<sup>50</sup>, including services innovation.

In Ireland the annual public procurement market for goods, services and works is valued at approximately €15 billion. The National Public Procurement Policy Framework<sup>51</sup>, published by the Department of Finance in 2005, focuses on public procurement as a strategic function that can contribute to national objectives in diverse areas, such as health, social and cultural development and the environment.

In May 2007, the NPPPU, as a first step in an initiative on promoting SME participation, published a consultation paper 'Improving SME Access to Public Procurement'<sup>52</sup>. While accessibility to public procurement opportunities is the main focus of the initiative, the document points to the possibility of stimulating innovation in the context of promoting other government objectives. Forfás has established a Procurement Innovation Group (chaired by the Department of Enterprise Trade & Employment) with the aim of maximising the opportunities for public procurement to stimulate innovation.

**Recommendation 5.6:** Use public procurement to stimulate services innovation in line with the guidelines set out in the EU's Public Procurement Good Practice Guide.

**Action:** Department of Enterprise Trade & Employment, Department of Finance.

<sup>50</sup> EU Commission. 2007. Guide on dealing with innovative solutions in public Procurement. 10 elements of good practice. Commission Staff Working Document SEC (2007) 280. [http://www.proinno-europe.eu/doc/procurement\\_manuscript.pdf](http://www.proinno-europe.eu/doc/procurement_manuscript.pdf)

<sup>51</sup> <http://www.eprocnet.gov.ie/policydocs/NATIONALPUBLICPROCUREMENTPOLICYFRAMEWORK.pdf>

<sup>52</sup> [http://www.etenders.gov.ie/guides/Guides\\_show.aspx?id=1863](http://www.etenders.gov.ie/guides/Guides_show.aspx?id=1863)

## Chapter 6: Implementation

In this document, the Services Strategy Group has identified three strategic imperatives - diversifying Ireland's services export base, increasing the commercial presence of Irish services firms in overseas markets, and fostering the efficiency of services firms trading locally on the domestic market. The Group has made a number of recommendations to address these imperatives.

The effect of implementing these recommendations will be to bring services into focus as a major element in enterprise strategy, and to facilitate business enterprises in identifying and exploiting areas of new opportunity.

Mechanisms should now be put in place to advance these recommendations and to monitor their implementation. The Group recommends that the Department of Enterprise, Trade & Employment should take responsibility for overseeing the implementation:

The Department should coordinate a formal response to the recommendations made by the Group, and publish this response by the end of 2008. This response should explicitly state the actions that will be taken in response to the recommendations, by whom and when.

Towards the end of 2009, the Department should review progress and publish an implementation report, which should be sent to Cabinet for noting.

The Services Strategy Group firmly believes that action on its recommendations will make a difference - a difference that will enable Ireland to sustain economic progress and deliver continued improvements in living standards for its people.

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