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FORFÁS REGIONAL COMPETITIVENESS AGENDA: REALISING POTENTIAL: SOUTH-WEST

1. Background & Context

Ireland is facing unprecedented challenges against the backdrop of a world recession, and is now operating within tough budgetary conditions and fiscal constraints. We have already seen the impacts in terms of a decline in economic activity and increases in unemployment. The more recent downturn in employment is particularly marked in both the construction and manufacturing sectors and has greater implications for the regions outside of the Greater Dublin Area (GDA) in the medium term.

The Government's 'Building the Smart Economy' document identifies the fundamental importance of returning to export-led growth. Returning to export-led growth requires that we create an environment that is conducive to attracting foreign direct investment (FDI), stimulating entrepreneurship and enabling companies to grow and serve global markets from an Irish base.

In this context, Forfás, together with the development agencies, has developed a suite of Regional Competitiveness Agendas (RCAs) for each of the regions at NUTS III Level¹. The RCAs take an enterprise perspective, recognising that enterprise is a key driver for regional growth and national economic development. The document does not seek to suggest how immediate term issues might be addressed as these are being addressed through other channels². It takes a longer term view, recognising that at the same time, it is vital that we prioritise and make strategic investments now that pump-prime the potential of each of the regions to position them as contributors to Ireland's national growth when this downward economic cycle comes to an end.

This report should be read in conjunction with:

Regional Competitiveness Agenda: Volume I: Baseline Data and Analysis: South-West Region which provides an overview of the region today based on an analysis of quantitative and qualitative indicators across a range of competitiveness factors; and

A final report: Regional Competitiveness Agendas: Overview, Findings and Actions. This report highlights findings arising from our analysis of all regions, differentiating factors for the regions, and priorities for regional enterprise development.

¹ East (Mid-East & Dublin), Border, Midlands, West, Mid-West, South-West, South-East

Refer to National Competitiveness Council's Annual Competitiveness Report 2009 (http://www.competitiveness.ie/)

The Objective of the RCAs is to:

Provide an economic overview to inform the updates of the Regional Planning Guidelines and specifically to:

- Highlight opportunities to build on each region's distinctive strengths
- Identify barriers to achieving objectives and/or issues specific to the region together with actions to address them
- Identify infrastructure priorities relevant to future enterprise needs within the regions.

The RCAs take a broader interpretation of infrastructures to include 'softer' factors such as innovative capacity, leadership and quality of life factors.

Methodology

Desk-based research and one-to-one consultations with a range of stakeholders were undertaken to outline the current status of the region and highlight opportunities and challenges specific to it. A regionally based workshop was held to identify the areas where the region can build from its strengths to realise its potential over the coming years. These areas are not intended to be exhaustive, but provide indications of what is possible, and they serve to prioritise the infrastructures and supporting activities required to build on the region's assets and to address barriers to enterprise development.

Report Structure

The report outlines:

- Global Drivers of Change that impact on enterprise needs
- The Competitiveness Factors that provided the framework for analysis
- A Summary of the Current Status of the Region Strengths and Challenges
- Realising Future Potential Identifying areas of opportunity:
 - Sectors and activities at firm level
 - Business environment factors
- Priority Actions

2. Regional Competitiveness

Global Drivers of Change

It is never easy to predict how enterprise is likely to evolve over a given time, and within the context of the current economic downturn, it is even more challenging. Having said that, there are a number of global drivers that will continue to have implications for how companies will do business in the future³, and in turn, inform the needs of the business environment and factors of competitiveness.

Globalisation: The pace and extent of global competition has intensified significantly over recent years. Globalisation enables companies to reach new untapped markets. The supply chain is increasingly disaggregated so that companies tend to outsource non-core activities or to off-shore them to locations where it makes business sense. Even firms serving the domestic market are facing international competition (e.g. in retail, pharmacy, supermarkets). People are also more mobile and high-value talent is scarce relative to global demand. People can and will choose where they want to live and work. Quality of life factors take on a new dimension in this context.

Advances in Technology have a significant impact, not only on the ICT industry itself, but on almost every business, regardless of the nature of its activities. Technology advances have enabled companies to manage multi-site operations across the world. ICT has been, and will continue to be, a key enabler for the remote delivery of services. Increased convergence of technologies has seen companies from formerly discrete sectors enter into partnerships to provide end solutions to customers. Changes in business models, the convergence of formerly discrete sectors and increased mergers & acquisition (M&A) activity call for a work-force with multi-disciplinary skills and a flexible and problem-solving attitude.

Rising Concerns About the Environment: The increased focus on environmental (and energy related) issues presents opportunities for companies to innovate with alternative sources of energy, new solutions and services. Consumers will drive all companies to reconsider aspects of their business from an environmental perspective. For companies, this involves considering their own production and business processes, carbon footprint, materials and waste.

Shift Toward Services: Services contribute a higher proportion to GDP in developed economies driven by consumer demand, increased disposable incomes and a demand for 'personalised' solutions. Within the business to business (B2B) sector, companies are responding to the disaggregated supply chain model, and providing services which had been formerly managed 'in-house', including e.g. laboratory and testing services, R&D, logistics, supply chain management, and customer technical support. Manufacturing firms are 'bundling' services with their products to provide a more tailored and higher value solution to their customers. Competitively priced, high-speed resilient broadband networks and services are now a basic requirement to underpin future economic development.

The Importance of Dynamic Urban Areas: Ireland's economic structure is shifting towards a higher proportion of services exports, balanced with a core of high-value added

³ Forfás (2008) Sharing our Future, IBM (2008) Drivers of Change, Enterprise Strategy Group (2004) Ahead of the Curve

manufacturing activities - although this is more immediately apparent in the city of Dublin and to a lesser extent in the urban centres of Cork, Limerick, Galway and Waterford. International evidence shows that high-value added services are attracted primarily to urban areas, and that today, internationally, cities are competing with cities for enterprise investment. It also points to the fact that urban areas play a key role in driving the development of their hinterlands, and successful regions have a dynamic and vibrant city at their core. The RCAs acknowledge the importance of gateways and their role as drivers of regional economic development, and the need for strategic planning and development to optimise the inter-relationship between gateways and their immediate hinterlands.

Competitiveness Factors

The global drivers highlighted above have implications for where and how companies do business. As companies respond to these global drivers of change they make location decisions based on economic and business imperatives. Higher value activities generally depend upon an educated and skilled workforce. Locations are not only considered in terms of (relative) cost, but in terms of access to skills and talent, access to markets and customers (whether physical or virtual), an innovative capacity and capability and a dynamic environment offering an attractive quality of life - basically a good place to work, live and to do business.

In this context it is important that a location or region provides a competitive environment that stimulates entrepreneurship, enables companies to grow and evolve, and attracts and retains foreign investment. The following factors of competitiveness were developed to facilitate analysis of the regions, incorporating a suite of both quantitative and qualitative indicators⁴.

Competitiveness Factors

Enterprise Dynamic	assessing the enterprise structure, employment and GVA, the contribution from agency supported enterprises, and sectoral diversity and/or clustering
Skills & Education	an analysis of the skills, educational attainment and education resources
Innovation	research and development investment and activity, collaborations and interlinkages between HEIs and firms, between firms and customers
Economic Infrastructures	transport and broadband infrastructures - recent investments and ongoing infrastructure needs
Quality of Life	based on factors relevant to the attraction of mobile investment and labour/talent
Leadership and Strategic Capacity	outlining relevant organisations and indications of locally driven initiatives and outcomes

⁴ Forfás, DOEHLG & Fitzpatrick Associates (2006) Implementing the NSS: Gateway Investment Priorities Study; NCC (2009) Our Cities: Drivers of National Competitiveness; Fitzpatrick Associates (2009) Preparation of a Gateway Development Index (Stages 1&2)

3. The South-West Region Today - A Summary

This summary of the *Regional Competitiveness Agenda Volume I: Baseline Data and Analysis* is intended to highlight aspects that indicate the differentiating elements for the South-West region. The complete Volume I is available separately.

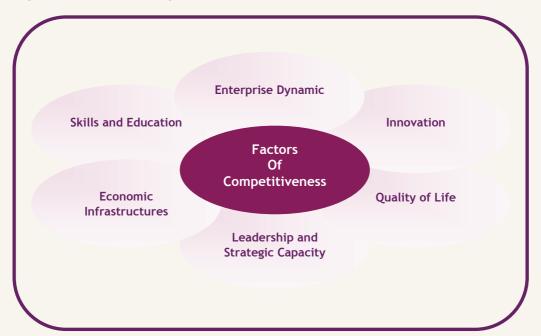


Figure 1: Factors of Competitiveness

Overview - Population and Growth

The South-West region, comprising counties Cork and Kerry, has a total population of 648,000 which is approximately 14.5% of the State's total population⁵.

Large disparities exist between the performance of Cork and Kerry (and indeed, between the Cork Metropolitan Area and the rest of the region) with regard to measures of output, income and population. These disparities reflect a diversity which can be considered as a strength rather than a fundamental weakness. Cork county and Kerry's essentially rural character, strong tourism base, and natural landscape resources contrast with the more urban and industrial character of metropolitan Cork 6 .

The unique qualities of the region have the potential to offer a very distinct range of attraction factors, combining quality of life elements with a diversified base of enterprise.

⁵ CSO (2009) Population and Migration Estimates

⁶ Cork City and its immediate environs, which has a current population of 272,645 and is projected to grow to 381,500 by 2022

Metropolitan Cork has been designated in the National Spatial Strategy (NSS) as a Gateway, with Tralee-Killarney and Mallow as regional Hubs. The region had the third lowest population growth rate in the State at 7% over the period 2002-2006 - although in absolute terms, growth was second highest after Dublin. Many areas of the South-West, including some of the key rural towns, experienced a 15%+ increase in population over the period 2002-2006. At the same time, Cork City witnessed a decline of 3% in population.

Enterprise Dynamic

The South-West has the highest Gross Value Added (GVA) per worker in the State (2006), and has experienced higher than national average growth rates in GVA over the period 2000-2006⁷. GVA is an imperfect measure of value creation however, and can be impacted by a number of factors. In the case of the South-West, higher GVA is largely explained by the significant presence of the very high value pharmachem sector, primarily located in the Cork Metropolitan Area⁸. The region is unique in that it is the only region where the value of output from manufacturing exceeds that of services (both traded and non traded).

There are marked differences in disposable income levels between the counties of Cork and Kerry, with disposable incomes in Cork at 99% of the national average compared to Kerry at 86%.

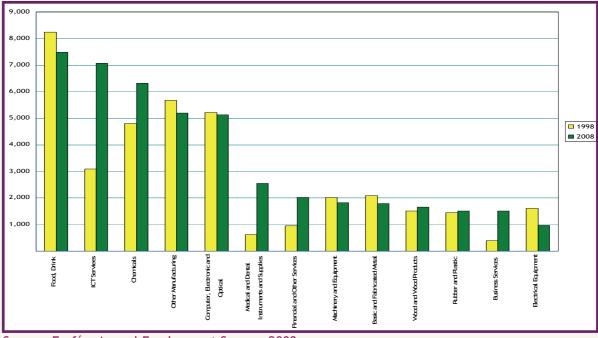


Figure 2: Agency Assisted Employment, Selected Sectors, 1998 & 2008

Source: Forfás, Annual Employment Survey, 2008

⁷ GVA - Gross Value Added - the value of the region's output less intermediate materials and services used in its production. Latest available date is 2006.

⁸ http://www.swra.ie/drivesurvey.pdf

The region experienced the same high growth in public sector, construction and retail/wholesale employment that was evident across the country over the period 1998-2008. The South-West has a diverse industry base and well developed geographic clustering of export oriented companies in the food, pharmaceuticals and ICT sectors in particular, and, to a lesser extent, the medical technologies sector. There has been significant growth in employment in internationally traded services over the decade 1998-2008, demonstrating the attractiveness of the Cork Metropolitan Area to these activities⁹.

There are active industry networks in the region, particularly in the area of ICT and electronics with The Cork Electronics Industry Association, Kerrysoft and it@cork. The food and tourism sectors have also engaged in the Fuchsia branding initiative.

Skills, Education and Innovation

Analysis of the occupational skills profile for the region shows a marked shift from unskilled to skilled and strong growth in managerial and technical skills over the census period 2002-2006. The region has relatively high educational attainment at 28%, coming in behind Dublin and Mid-East regions, and a lower than state average rate of early school leaving. The South-West has also proven attractive to new graduates, suggesting that opportunities exist for students with degree level qualifications or higher¹⁰.

The region benefits from its three Higher Education Institutes (HEIs), and has demonstrated strong performance in attracting research funding. Its research institutes are primarily focused on areas relevant to existing industries in the region, including ICT/electronics, LifeSciences, food and the environment. Tyndall, based in UCC, is one of Europe's leading research centres, and employs 330 researchers with plans to expand to 500 by 2011. R&D expenditure in HEIs is second only to Dublin, representing a fifth of all third level R&D spending. Business expenditure in R&D (BERD) performs in line with other regions outside of Dublin with large urban centres. However, given the large base of high value industries, there may be potential to achieve higher R&D and innovation investment at firm level.

Economic Infrastructures: Access and Connectivity

International access is a basic necessity for firms operating in global markets, both in terms of physical access and the ability to transfer electronic data and information.

From the perspective of physical access, the region benefits from its international airport at Cork (which has recently opened a state of the art terminal, capable of handling up to 5 million passengers per annum) and Kerry Airport at Farranfore, as well as being proximate to the international airport at Shannon. A stated objective of Cork International Airport is to secure scheduled air services into the East Coast cities of the USA.

The region is served with good port and shipping facilities, primarily through the Port of Cork. Major *Transport 21* initiatives underway will improve the South-West's inter and intra-regional

⁹ Based on agency supported companies, i.e. companies that are clients of IDA Ireland, Enterprise Ireland and Údarás na Gaeltachta

¹⁰ HEA (2007) What do graduates do? Class of 2006 (First Destination Report)

connectivity. Elements remaining to be addressed are the improvement of the N20 to Limerick, upgrading the Sarsfield and Bandon road junctions on the Cork South Ring Road, the N25 to Waterford (specific to the Atlantic Corridor concept), the N28 to Ringaskiddy and the N22 to Killarney/Tralee which is a strategic economic corridor within the region.

The Cork Area Strategic Plan (CASP) presents a comprehensive and coherent vision of the development of Cork and its immediate catchment area up to 2020, and demonstrates not only a model of strategic planning for a city region in itself, but also the capacity of relevant stakeholders to collaborate in an effective way to ultimately deliver impact for the region.

As with all regions, quality and cost of broadband services remains a significant issue. In particular, international backhaul from Cork City and other large urban centres in the region including the Tralee-Killarney Hub is at least 25% more expensive than from Dublin or comparable UK regional cities, putting the region at a disadvantage when competing for data intensive service activities¹¹.

Quality of Life

International research shows that quality of life factors have become increasingly important in attracting (and retaining) a mobile workforce. The South-West benefits from a balance between its urban gateway in Cork, and an attractive and distinctive natural landscape that offers a range of attractions. Not only are such attractions of value for attracting global talent for enterprise, but they are also significant assets for the tourism sector. Kerry and West Cork have a wide range of strong natural, cultural and recreational amenities.

Leadership and Strategic Capacity

Local leadership plays a key role in driving regional development in terms of infrastructures, concentration and well planned urban development as well as in terms of facilitating enterprise development through stimulating networking, clustering and innovation activities. The South-West has demonstrated an ability to engage collaboratively across a wide range of regional 'actors' as evidenced by the CASP and the Regional Innovation Cluster initiatives. This provides an excellent basis from which to further develop.

Conclusion

The South-West is a strong performing region across a number of indicators. It has a diverse enterprise base encompassing what might be regarded as the more traditional sectors, as well as high value added manufacturing and internationally trading services activities. It offers an attractive quality of life, combining the benefits of a vibrant metropolitan area, with ease of access to rural and coastal locations. It has a strong basis from which to enhance its innovative capacity, based on evidence of increased investment both within HEIs and companies in R&D and innovation, proactive industry networks and demonstrated impacts of strong collaborative efforts.

¹¹ In fact one company is experiencing a price differential of 75% - July 2009

Current trends indicate that FDI is more likely to be attracted to urban areas of scale that have the critical mass to provide access to talent and skills, ease of access to international markets and other essential services. Indigenous companies can however contribute a greater proportion to Ireland's future economic growth. The fostering of entrepreneurs, the creation of an environment conducive to innovation, the stimulation of the 'clustering' of smaller firms and their engagement in networking, partnerships and alliances take on a renewed priority - and in this context, the hubs and other towns in the region have a crucial role to play.

The range of established and newer industries in the region provide a strong platform from which to take advantage of key assets and increasing convergence across sectors and technologies. Emerging opportunities in the areas of energy/environmental goods and services and maritime activities present considerable potential for the wider region.

The focus for the region's future development is to enhance and build on its innovative capabilities - across *all* sectors and activities, and in both the private and public sectors.

4. Realising Future Potential: Sectoral Opportunities

The areas outlined below were highlighted during the regionally based workshop and informed by global trends, recent enterprise investments and the existing enterprise base¹². The potential to capture 'new' opportunity areas was also discussed. The areas identified are not intended to be exhaustive, but indicative of potential, outlining the suite of assets that provide a basis for growth in enterprise activity. We have also highlighted the nature of skills and underpinning infrastructures required where these are sector specific.

Although this section takes a sectoral focus, the need to develop innovative capacity and to stimulate business engagement in R&D and innovation is pervasive across all sectors and activities. Building its reputation as an *innovative region* is considered a key objective for the South-West.

- LifeSciences
- Food
- Tourism
- ICT Hardware and Services
- Internationally Traded Services (excl ICT related)
- Maritime
- Energy and Green Technologies.

The increased blurring between sectors is particularly apparent as we review the potential for the South-West (Figure 3 overleaf). Core skills are transferable across these sectors including, for example, biology, chemistry, engineering, electronics, logistics and software development. Given the region's demonstrated collaborative approach to delivering on projects and initiatives, it is well placed to leverage benefits from taking a cross sectoral approach in stimulating innovation.

The sectors listed here should not be considered an exhaustive listing, and they are not listed in order of priority

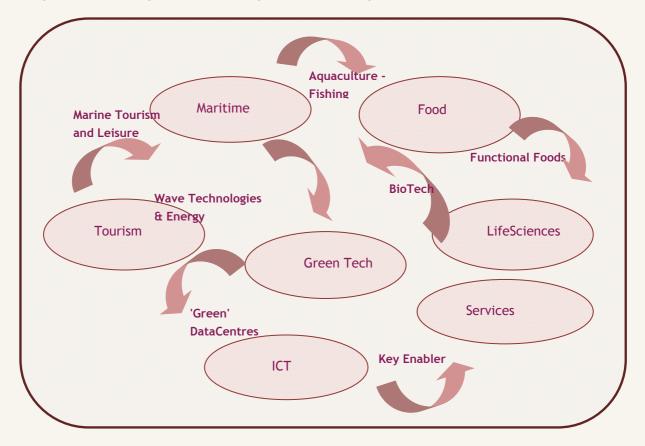


Figure 3: Increasing Sectoral Convergence and Blurring

LifeSciences

The LifeSciences sector globally (that embraces pharma, bio, medical devices and functional foods) is entering a period of considerable change. Advances in technologies are driving developments in the sector that is resulting in an increased blurring between what were formally discrete sub-sectors and increased integration with ICTs.

The pharmachemicals sector in particular is challenged by the fact that a number of products are due to come off patent protection over the coming years, and the pipeline for new products is relatively low. Biopharma is an emerging phenomenon, which presents a more complex production process. Overall trends are shifting toward the realisation of personalised healthcare that is based on developing an understanding of the performance of drugs at the level of the individual and/or groups with particular genetic dispositions.

In this context, manufacturing processes will become increasingly complex coupled with the need for firms to focus on continuous improvement and engage in process R&D. Expertise in the area of Quality by Design (QbD), Process Analytical Technology (PAT) and Quality Risk Management (QRM) are critical if Ireland it is to build on its track record in high value added production. The future LifeSciences manufacturing environment will require inter-disciplinary approaches to problem solving and will require flexible approaches that deliver on smaller batch sizes and product variations in multi-product manufacturing facilities. Process design and development for new and innovative products requires a greater understanding of the range of potential delivery mechanisms and package design, interactions between different

Leveraging Expertise in Functional Foods

The Alimentary Pharmabiotic Centre (APC) in UCC focuses on research in gastrointestinal health. This research has applications in both the pharma and functional food areas for the development of new therapies for lifelong debilitating gastrointestinal diseases such as gastroenteritis, ulcerative colitis, and Crohn's disease.

With more than 100 researchers from UCC and the Teagasc Moorepark Food Research Centre, the APC involves a number of the leading researchers in the area of gastrointestinal health, including Dr. Fergus Shanahan and Dr. Eamonn Quigley.

The centre has formed a longstanding industry partnership with one of the world's largest pharmaceutical companies, GlaxoSmithKline (GSK). The centre also works in collaboration with an indigenous company, Alimentary Health that has been highly successful in the area of nutraceuticals and the crossover between pharma and food.

The recently established 'Food for Health Ireland' (FHI) research centre, headquartered in UCC, will carry out research into how natural components of milk can be extracted and used as food ingredients to deliver health benefits.

materials under different environments, testing and quality control and validation processes. Core skills need to be complemented so that people are equipped with multi-disciplinary skills, or at the very minimum, demonstrate an ability to work effectively and proactively in multi-disciplinary teams.

Over time, although large scale singleproduct sites will still exist, there will be an increasing emphasis within the industry globally on manufacturing facilities and processes that can be adapted and/or retooled to facilitate new products.

Within the food sector, an increased focus by individuals on overall 'wellness' has led to a growing demand for lifestyle related products including health enhancing 'functional foods' and nutraceuticals. Such products range from isolated nutrients and dietary supplements through to products that reduce cholesterol, improve bone health or aid the digestive system. The research disciplines, processes and standards are similar to those of the biopharma sector.

Key Assets

The South-West has a strong geographic cluster of pharmaceutical companies - particularly in the Ringaskiddy area, including Pfizer, J&J and Centocor. A number of food companies, including Kerry Foods, Dairygold, Carbery and indigenous companies, Alimentary Health and Cybercolloids¹⁴ are engaging in the production of functional foods.

The growth within the medical devices sector strengthens the region's life sciences profile particularly in the context of increased convergence within the sector.

The region also benefits from the presence of research centres such as Teagasc's Moorepark, the Alimentary Pharmabiotic Centre (APC) in UCC and the recently established Food for Health Ireland Research Centre (UCC). It is important too, that regions look beyond their own

Wellness is generally used to mean a healthy balance of the mind-body and spirit that results in an overall feeling of well-being i.e. wellness means being much more than just disease free

¹⁴ Cybercolloids provides R&D services for nutraceuticals (including marine)

immediate capabilities and seek opportunities to link with relevant research centres and companies in neighbouring or indeed other European Regions, to fully realise potential¹⁵.

Realising Potential

Given the strong enterprise and research base, the South-West can develop a differentiated offering for early stage process development, proof of manufacturability and pilot production.

Investment in process R&D and in building multidisciplinary teams is particularly important for firms based in Ireland. Not only does such investment respond to demands for increased efficiencies and cost reductions, but it also builds on our core strengths and facilitates backward integration to product development and commercialisation. The development agencies, IDA and Enterprise Ireland provide targeted supports for firms to engage in R&D and Innovation and transformational change. Manufacturing Process Research
Solid State Pharmaceuticals Cluster

Based in UL the cluster's research programme focuses on investigating how the process of producing the active ingredients for tablets in powder form can best be done and improved. Academic research partners include UCC, UCD, NUIG and TCD.

The work of the cluster is highly relevant to industry needs in the pharmaceutical sector, which is looking to develop more efficient methods of producing small molecule drugs. There are a large number of companies actively involved including Janssen, GSK, Schering Plough, Eli Lilly, Merck Sharp & Dohme, Roche, Pfizer, Covidien and Helsinn.

The reskilling of the existing workforce to meet the increasingly complex operational and management environment will be key to realising and capturing future opportunities.

The sector is utility intensive, relies on resilient cost effective energy and requires access to hazardous and non hazardous waste treatments. Given the location of a high proportion of companies in the Ringaskiddy area, the upgrade of the N28 is critical.

Food

The dynamic for the food industry has changed significantly in recent years, transitioning from being largely production-led, to now being led by market demands. As well as the growing demand for health enhancing functional foods identified above, the aspects of standards, quality and traceability are paramount. Branding and labelling play a particularly important role as consumers look for products they feel they can trust. The increasing focus by leading retailers and manufacturers on the issue of sustainability informs the more environmentally friendly requirements they set for their suppliers. Retailers too are consolidating and there is evidence of moves to international structures and centralised procurement.

The sector runs to very tight margins and increasing efficiencies and productivity are key objectives for the sector in Ireland, as is the EI supported agenda to broaden access to a wider range of eurozone markets.

¹⁵ For example, Wyeth (Limerick) and Dairygold

Key Assets

The food sector in the South-West is predominantly made up of companies that are involved in dairy and beef processing, with a small number of the larger players involved in ingredients, and many smaller producers serving niche markets. The sector employs over 7,400 people directly in approximately 170 firms, but has witnessed a decline of almost 1,000 people over the past decade¹⁶. The food sector contributes the highest proportion of Irish Economic Expenditure (IEE) in terms of salaries, third party services and materials than any other agency supported sector (although this does not take into account corporation tax payments).

Recent research by Bord Bia highlighted significant potential market opportunities for the Irish dairy sector. Most of this exists in the hard/semi hard cheese area, as well as specialised dairy ingredients that deliver on market demand for products with health, nutritional and functional attributes¹⁷.

The fresh fish domestic market is growing by 27% annually, and the region benefits from its coastline and range of existing companies (see also Maritime Section).

The Teagasc research centre at Moorepark is a key asset for the food sector, and recent initiatives have seen a greater engagement with dairy firms in particular.

The Department of Food Business and Development in UCC is a multi-disciplinary research and teaching team with a particular mission to contribute to the development of Ireland's agrifood industry. This involves the enhancement of indigenous agriculture, food processing, and distribution, while emphasising the central importance of the consumer, multi-purpose cooperatives, rural and local development and the promotion and support of industries rooted in rural communities.

The recently established Food for Health Ireland (FHI) Research Centre, headquartered at UCC, will carry out research into how natural components of milk can be extracted and used as food ingredients to deliver health benefits.

Realising Potential

Cost competitiveness: There is no doubt that the sector is undergoing significant challenges, and as a tight margin, high utility, high labour content business, Ireland's relative competitive positioning is particularly important. Although cost competitiveness is a national issue, firms have already been taking action, for example through the Large Industry Energy Users Network, which is supported by Sustainable Energy Ireland (SEI) and EI¹⁸.

Improving **productivity** and business processes are essential for the food sector going forward. The agencies actively support productivity enhancements, training and organisational change. A Productivity Guide for firms has recently been published by Forfás

¹⁶ Forfás (2008) Annual Employment Survey (agency supported companies only)

¹⁷ i.e. creating a new generation of high value food ingredients by extracting high value fractions from raw materials such as milk protein

¹⁸ A number of the larger food companies are already engaged in the Large Industry Energy Network (LIEN - supported by SEI and EI) that seeks to find ways of optimising energy usage and ultimately reduce costs

which provides a useful practical tool for companies to identify actions they need to take specific to their own company needs¹⁹.

Skills: The shift from a production-led to market-led model has implications for the skills set within the sector, and although many companies have already embarked on developing skills and management capabilities within their firms, research by the Expert Group on Future Skills Needs (EGFSN) indicates the following needs:

- efficient supply chain management supported by the relevant skills in procurement, international logistics and sales to address regional and/or multi-national buying centres, together with customer relationship management, inventory and working capital management
- training on continuous improvement and lean principles at all levels, including e.g., automation and PLC control diagnostics
- an ability to identify and interpret consumer trends, R&D and portfolio management, design engineering, branding and capabilities in packaging technologies
- knowledge and use of relevant technologies to comply with standards and traceability (e.g. the use of RFID)²⁰
- the current over-reliance by many food companies on UK markets has increased the pressures of an already challenging economic environment. EI is working with companies to assist them in broadening their market portfolio to the Eurozone to help mitigate currency risks. Marketing and language skills will become increasingly important in this context.

R&D and Innovation: Growth within this sector will depend on continued commitment by companies to research, develop and innovate. Although innovation is more commonly a feature of larger multinationals, it is interesting to note that only 15% of food and drink firms in Europe did *not* introduce innovations in the last three years²¹. There is an ongoing need for primary producers and food & drinks processors to work with the various research and market support bodies to develop their businesses.

Infrastructures: continuous improvement in infrastructures (road/ports) to facilitate efficient logistics and distribution operations to UK and European markets is particularly important. Transport costs are a major input cost in the food and drinks sector and the typically high costs in Ireland are negatively impacting the sector's potential.

¹⁹ Forfás (2009) Boost Your Company's Productivity - Simple Steps

²⁰ RFID - Radio Frequency Identification

²¹ SMEs-NET (2005) Vision Paper - Ten Theses on Food and Drink SMEs and Innovation in Europe - Evidence on Needs and Policy Recommendations

Tourism

Fáilte Ireland's South-West strategy aims to increase the number of holiday visitors who come to the region to 2.8 million and to increase tourism revenue to €1.4 billion by 2010. The strategy outlines priorities and goals for the region around four themes:

- nature-based activities from walking to adventure
- Cork city as a major urban destination
- maritime heritage & coastal holiday experiences and
- rural culture and country pursuits²².

The region has a number of valuable natural and cultural assets that support the tourism industry. It also benefits from its reputation for quality food, with global brand names such as Kerry Foods, Clonakilty Pudding, and a range of high quality restaurants and locations including Ballymaloe House, Sheen Falls Hotel and the Kinsale Good Food Circle. The Fuchsia brand is a quality regional brand for food, tourism and craft from West Cork. Almost 200 local businesses are currently approved to use to the logo and take part in a marketing and development programme with West Cork LEADER Co-Op.

Ballybunnion
Listowel

Tralee
Castleisland
Dingle

Killorglin

Killarney

Mallow

Midleton

Completed by Cooplete
Coopleted by Cooplete
Coopleted by Coopleted by

Figure 4: The Fuchsia Brand

Source: www.fuchsiabrands.com/food.asp

²² See marine sector later in this chapter for more detailed information on this segment

Realising Potential

The region has reasonably well developed tourism product offerings. Specific strategies have been developed to harness the potential of marine tourism (see Marine Sector section below). It is important that a coordinated approach is taken to deliver on these strategies, and to improve transport and access within the region. This should be done in a way that enables an integrated holiday that facilitates for example, cyclists to take public transport to get to their cycling destination. A more user centred public transport system with increased regularity of services to popular rural tourism centres would benefit tourism in the South-West.

Cork city is well placed to take advantage of the trends for more short term city breaks²³ - but it is of concern to note that Fáilte Ireland does not have a 'city breaks' section on its 'Discover Ireland' website.

ICT: Hardware, Software and Services

The ICT sector is constantly evolving and there are a number of disruptive global trends that will impact on companies, not only on those within the ICT sector itself, but also on all firms in terms of how they apply and/or adapt technologies.

A Changing Software Economy: Computing is moving towards being a utility-like system, with the internet acting like an online electric grid, distributing computing power²⁴. There is a global trend away from monolithic applications from a single supplier toward purchasing more tailored solutions. Basically this means a fundamental shift in how companies are developing, supplying and buying IT infrastructures and software. The opening up of standards and technologies provides a strategic entry point for innovative, small businesses, wherever they are located (assuming access to cost competitive, high speed and resilient broadband networks) that can effectively link into the globally distributed networks of major players.

This shift toward software-as-a-service (SaaS) and pay per use infrastructures and applications should see an increase in hosted/managed services, requiring datacentre infrastructures and associated skills and a very different model of customer relationship management.

Within this emerging 'cloud computing' environment the range of services that can be offered on-line include, for example, developing and/or providing:

- software applications delivered over the internet on a pay-per-use basis
- software that enables firms to manage the storage and retrieval of documents

Salesforce and SaaS

Salesforce offered a simple service - a computer programme that helped corporate sales forces keep track of their accounts over the internet.

Their clients didn't have to buy a software licence (as they weren't installing the programme on their own computers), and they didn't need to invest in new servers when sales picked up, because they weren't storing the data in-house.

²³ Cork City has been named amongst the top 10 of 'best cities to visit' in the Lonely Planet Guide's 'Best in Travel' list for 2010

Often described as 'Cloud Computing' or 'Utility Computing'

- electronic records and information management services (RIMS): Growth for these services is driven by the increase in the levels of data being produced, coupled with the increased requirements to retain much of this data for defined periods²⁵
- technologies that help firms to efficiently manage the energy usage of data centres a significant growth area in the context of an increased awareness by data hosting firms of the 'green' agenda
- technologies that enhance 'intelligent' search engines that deliver relevant and contextualised results.

ICT Impacts All Sectors: ICT today is more than an enabling technology. It has a pervasive impact across most, if not all sectors. The application of ICTs can 'refresh' traditional sectors; it changes the way services are delivered e.g. remote learning or healthcare and diagnostics, simulation (training), virtual reality (architecture and design); it provides opportunities for new converged products and customised digital content (e.g. iPod, blackberry); enables the monitoring of large scale phenomena such as energy consumption, pollution, weather and global warming.

ICT Related Research

Tyndall (UCC) engages in research in the areas of photonics, micro/nanoelectronics, and microsystems. Its Central Fabrication Facilities (CFF) have processing capabilities in the areas of silicon, micro-electromechanical systems (MEMS), compound semiconductors and polymers.

The Networked Embedded Systems Cluster based in CIT has research groups in the areas of Smart Systems Integration, Adaptive Wireless Systems and Augmented Materials with a total of 45 researchers. The cluster has strong external collaborative research links with Tyndall National Institute, UCC, the Environmental Research Institute, TCD and UCD whose research complements the cluster's activities.

Tralee Institute of Technology's Centre for Innovation in Distributed Systems focuses on solving real-world industry problems based on a multi-disciplinary systems approach, and includes research in the areas of RFID and in Automatic Identification Technologies.

Key Assets

The South-West and Cork in particular, has a strong track record in the electronics sector. It currently employs approximately 11,800 people (6,500 in ICT software and services and 5,300 in hardware activities) and is the top internationally trading sector in terms of employment in the region²⁶. To date employment in the sector has been predominantly accounted for by foreign subsidiaries, although there are a large number of indigenous IT companies established throughout the region.

Companies such as Apple, EMC and Siemens have long established entities, which have demonstrated an ability to continuously adapt and capture new opportunities. There are a number of companies engaged in high value added manufacturing in this sector and many multinational firms now undertake a wider range of related activities including R&D, headquarter activities, supply chain management and customer technical support.

²⁵ Ireland already has a number of well established RIMS firms involved in the management of physical records

²⁶ Forfás (2008) *Annual Employment Survey* (Agency supported companies only)

There are a number of active industry networks supporting the sector in the region including IT@Cork, The Cork Electronics Association and KerrySoft.

Research relevant to the sector is undertaken in a number of institutes throughout the region. Including Tyndall (UCC), the Networked Embedded Systems Cluster (CIT), and the Centre for Innovation in Distributed Systems (ITT).

Killarney Technology Innovation and Kerry Innovation Centres provide business incubator, research and training for ICT related enterprises and activities. The National Software Campus at Mahon, Cork was designed specifically for IT and service companies with flexibility, networking and scalability in mind, and provides serviced offices and facilities. It hosts the Network Operations Centre in Cork for the 60km Cork City Metropolitan Area Network.

Realising Potential

Given the pervasive use of ICTs and high growth potential in information/regulation intense sectors such as pharmaceuticals, food, medical technologies, transport and logistics, and its role in advancing productivity²⁷, the South-West is well positioned to take advantage of future opportunities that arise *across all* sectors.

Absolutely crucial for this sector is the availability of cost competitive, high speed broadband networks, particularly if smaller niche companies are to take advantage of new opportunities.

Skills and management capabilities need to be enhanced so that companies are enabled to engage effectively in a global market supply chain.

Internationally Traded Services (excluding Software and Tourism)

Advances in technology have enabled the remote delivery of services, including financial products, reservations and ticketing, location based services, digital content and eGames, 'virtual' markets (eBay), data management and analysis, design services etc. Within the Business to Business (B2B) sector, companies are responding to the increasingly disaggregated supply chain model, and providing services which had been formerly managed 'inhouse,' including, for example, laboratory and testing services, R&D, logistics and supply chain management, technical support, managed data services and a range of business processes.

Electronically Delivered Services/Business Process Outsourcing (BPO)

Fexco is headquartered in Killorglin, Co Kerry. It employs approximately 1,000 people globally (900 of whom are based in County Kerry).

It provides a range of primarily financial, accounting and administrative services across Merchant, Business, Consumer and International Services Sectors.

It is an excellent demonstration of an indigenous company servicing world markets from within its local area

http://www.fexco.com/

Across services, business processes, manufacturing processes, and enabling new ways of delivering services and digital content

Internationally trading services (ITS) activities tend to migrate toward urban areas (although not exclusively). The growth trends experienced by Dublin in services are now being replicated in Ireland's main urban centres, including Cork, Galway and to a lesser extent Limerick.

Key Assets

Internationally Traded Services (those supported by the development agencies) have demonstrated significant growth over the decade from 1998 - 2008 such that employment in this sector now represents 23% of total agency supported employment in the region, up from 12% in 1998. The region is host to a number of leading companies involved in customer technical support and accounting/billing services, and opportunities are being realised in the 'newer' services areas of eGames and digital content with recent investments from companies such as Blizzard and new Game Technologies.

As companies increasingly outsource non-core activities, Business Process Outsourcing (BPO) provides considerable opportunities to provide third party services in a range of activities such as customer support, reservation centres, financial and accounting processes/transactions and data management.

Realising Potential

The nature of ITS is such that high quality, competitively priced broadband infrastructures, and data centre capacity, are critical to attracting investment to the region. Not only are such infrastructures important from an FDI perspective, but are also vital for indigenous companies as they embrace alternative internationalisation strategies and manage globally dispersed entities.

Depending on the nature of the service activity, language skills may be important, particularly if activities are customer facing and serving non-English speaking markets.

Marine Sector

Despite being an island nation with the largest ocean to land mass ratio of any EU State, the Irish maritime economy is deemed to be in its infancy with untapped potential for growth. It embraces a wide range of industries and activities and has particular relevance to regional economic development.

The following sections consider some of the aspects of the sector and possibilities for the South-West.

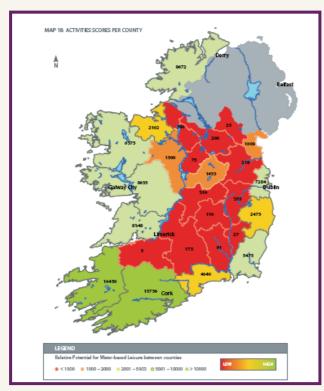
Sea Transport and Logistics

The Maritime Transport services sector employs approximately 14,000, equating to approximately 15% of all employment in the marine sector in Ireland. The Irish government has been committed to supporting development through direct investment and the introduction of various incentives for training, employment and business including:

- The introduction of Irish tonnage tax in 2002
- Social insurance refunds to Irish companies to encourage the employment of seafarers
- Seafarers Additional Income Tax Relief
- An investment of €58 million in the National Maritime College of Ireland
- Cost neutral training of deck officers, engineers and ratings funded through the innovative ISEAS grant scheme.

Shipping Services		
Ship, Commercial, Technical & Crew Management	Logistics Management	Ship Finance & Mortgages
Marine Insurance	Maritime Legal Services	Ports Infrastructure & Services
Ship Brokering	Ship Chartering	Short Sea Shipping

Figure 5: Marine Leisure/ Tourism Activity Scores



The outlook for the sector is particularly challenging in the context of the global economic downturn.

According to IMDO²⁸, all 12 ports in Ireland²⁹ reported a decline or no growth in volume in 2008. The increasing international shipping trend toward larger vessels has clear potential to impact on the ability of Irish ports to continue to offer the current range and frequency of services unless adequate deeper water facilities are provided.

The Port of Cork plans to move many of its activities to a new location in Cork harbour where deepwater facilities and better access is available.

Source: Marine Institute

²⁸ The IMDO (Irish Maritime Development Organisation) was established in December 1999 to develop and coordinate policy in the shipping and shipping services sectors

Cork, Drogheda, Dublin, Dundalk, Dun Laoghaire, Galway, Greenore, New Ross, Rosslare, Shannon Foynes, Waterford, and Wicklow

Marine Leisure/Tourism

The Marine Institute published an investment strategy for the Water Based Tourism and Leisure Sector in Ireland 2000-2006, and undertook a comprehensive audit of water based tourism and leisure products for the country³⁰. The 'activity scores', based on a range of factors including natural resources, facilities, internal and external infrastructures, tourist accommodation etc., give Kerry and Cork a high rating (Figure 5 above).

There is significant potential for the development of additional marina facilities to accommodate local and visiting yachts. The region is located within a relatively short cruising distance of major sailing centres in the south of England and northern France and has some of the most beautiful coastlines in Europe. In January 2008 Cork County Council published a Marine Leisure Infrastructure Strategy for the West Cork area³¹. The West Cork Enterprise Board has been working with the West Cork Marine and Tourism Collaborative Cluster to further develop the sector.

Fisheries and Aquaculture

The Irish seafood market is valued at €382 million with both food service and retail experiencing significant growth in recent years. The fresh fish domestic market is growing by 27% annually.

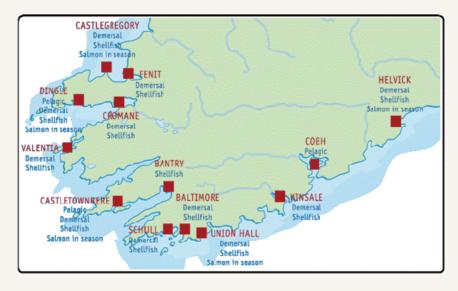


Figure 6: Fisheries and Aquaculture

Source: BIM

http://www.marine.ie/NR/rdonlyres/1DD13173-F1BF-41D6-B726-19E19AE924F4/0/WaterBasedTourismandLeisureProductAudit2006.pdf

Coastal and Marine Resources Centre UCC (2008) A Marine Leisure Infrastructure Strategy for the Western Division of Cork County Council

Aquaculture is the farming of aquatic organisms such as fish, molluscs, crustaceans, aquatic plants and sea urchins. Though still a relatively young industry, aquaculture has already grown to the stage where it accounts for 25% of the value of total fish production in Ireland and is increasingly a key supplier of raw material for the processing sector. Global demands on the food and agricultural sectors impact directly on aquaculture, and it is anticipated that world-wide aquaculture production will have to increase substantially. The application of research to this sector will help meet existing and future challenges.

Key Assets

The region benefits from a well established range of companies involved in related activities ranging from maritime engineering services, fish processing and aquaculture, adventure/marine holidays, supplies, logistics etc. The Marine Leisure Audit and Carrying Capacity Study for West Cork Report presents a comprehensive overview of the sub-regional assets in terms of marine access (harbours, piers and slipways), and relevant transport networks (bus and ferry routes).

Cork Port Services: The Port of Cork offers a wide choice of fast, scheduled lift-on lift-off and roll-on roll-off (Ro-Ro) services to continental Europe. There is strong potential for the Port to again offer a scheduled Ro-Ro shortsea service to Swansea and Cork is the only Irish port providing a deep sea Ro-Ro service to Scandinavia, the Mediterranean and West Africa.

The Irish Naval Service, the State's principal seagoing agency, is based in Haulbowline Island, Cork and has the responsibility to meet maritime defence requirements.

The National Maritime College of Ireland (NMCI) caters for the education and training needs of both the naval service and the merchant fleet and provides a broad range of training services for the maritime industry.

The Coastal and Marine Resources Centre (CMRC) is based in UCC. Research is undertaken through a multi-disciplinary approach, involving researchers with a range of specialist backgrounds including biologists, computer scientists, hydrographers, geographers and engineers. Basic and applied research is organised according to four specialist areas of interest: Marine Geomatics, Marine Ecology, Marine and Coastal Governance, Coastal Processes and Seabed mapping.

The Aquaculture and Fisheries Development Centre (AFDC), based in UCC, focuses on areas of fish and shellfish biology, health, disease, and genetics. The AFDC aims to support, stimulate and promote the development of sustainable aquaculture and fisheries by conducting both basic and applied research and providing training in aquaculture. It collaborates with companies and other universities, nationally and internationally.

Realising Potential

The development of this sector requires a committed and collaborative approach, ensuring the needs of the tourism industry are reconciled with the demands of other maritime activities (see below), and an integrated approach is taken to the relevant underpinning infrastructures and public transport services. This is easier said than done. In response to the European Commission document *An Integrated Maritime Policy for the European Union*, the South-West Regional Authority (SWRA) established a Regional Maritime Forum. Given the extensive range of potential activities/uses the forum itself had difficulty in identifying what

commonalities existed between the various sector activities, and indeed the areas where needs conflicted. Although a national strategy has been devised, the importance of the sector for Ireland's future economic development and its key role for regional development does not appear to be widely understood in the first instance. The untapped potential of this sector requires a strong agenda and regional decision making, planning and implementation to make it a reality.

A number of other networking and collaborative initiatives are underway within the region, including MERC I (see next section), and the West Cork Marine & Tourism Collaborative Cluster. The timely upgrade of the N28 (Cork to Ringaskiddy) is particularly important for the South-West region to support increased traffic via Cork port, as is the development of an integrated approach to transport policy across all modes (road, rail, seaports and airports).

Maritime Sector: What's possible?

Commercial shipping and trade activities through the Port of Cork and other smaller regional ports

Regional fisheries, mariculture and aquaculture sectors

Marine leisure activities - sailing, surfing, sports angling and sub aqua

Coastal tourism, beaches, walks and other public amenities

Production of economic goods from on-shore and off-shore natural resources

Tourism access to the region by ferry

Marine governance and planning Renewable energy production

Marine research, education and training Environmental protection

Maritime spatial planning Coastal security

Prevention of coastal erosion Marine exploration

Maritime Energy & Greentech

Increased consumer awareness of environmental issues, the Kyoto agreement, regulation and industry responses have driven remarkable growth of the global clean technology sector³². Latest estimates put the size of the global environmental goods and services market as exceeding €950 billion by 2010.

The potential of the green economy has been highlighted in the Government's framework document, *Building Ireland's Smart Economy*, as central to Ireland's long term economic sustainability. The recently established High Level Group on Green Enterprise brings the relevant stakeholders together and an action plan on green enterprise development in Ireland has recently been published³³.

³² Companies and research centres that research, design and provide products and/or services that improve operational performance, productivity or efficiency while reducing costs, inputs, energy, consumption, waste or pollution

³³ High Level Group on Green Enterprise (2009) Developing the Green Economy in Ireland

Key Assets

The maritime and energy sectors offer opportunities for growth in the region. Common issues, such as the need to reduce emissions from shipping and to develop offshore wave energy installations, can prompt the realisation of economic benefits in both areas.



Figure 7: Energy and Green Technology

Alternative Energy Sources: Marine & Energy Research Cluster Ireland (MERC I) has been established to promote Ireland as a world class maritime & energy research and development location. It brings together a critical mass of expertise from UCC and the NMCI, working collaboratively with CIT, the Irish Naval Service and the Port of Cork.

Renewable ocean energy is one of the niche areas included in the work of MERC I. The relocation of UCC's Hydraulic and Maritime Research Centre (HMRC) and the concentration of UCC's energy department to a new maritime and energy research facility in Ringaskiddy adjacent to NMCI forms part of this process. Linking ocean energy with the broader sustainable and renewable energy agenda allows for the complementary clustering of R&D thus helping to enhance the attractiveness of the region for clean, green, national and international industrial development.

Dundalk 2020: Case Study

Sustainable Energy Ireland has engaged in a pilot programme in Dundalk that is intended to act as an exemplar of sustainable energy best practice. Dundalk 2020 is a community project that is part of a pan European programme called CONCERTO.

Dundalk2020 projects are concentrated in a defined four square kilometre geographic area. The projects involve all sectors, including housing, industry, education, healthcare, retail and leisure facilities. Initiatives include the introduction and use of smart metering, identifying and facilitating new modes of transport, and the development and operation of a biomass district heating system.

Initiatives are integrated at a local level and SEI is the catalyst in creating networks, action groups and in working with businesses, residential groups, state agencies and local authorities to put in place structures to help achieve goals and specified targets. Although the project is in its early days results are already evident, with a collective saving of approximately 5,000 tonnes of CO² and cost avoidance by industry of approximately €500,000 per annum since 2007.

http://www.sei.ie/dundalk2020

The development of a maritime innovation centre and space technology and energy competence centres providing support for incubation companies form part of the Maritime and Energy Campus Ireland initiative.

Green Technologies: Other opportunities include the development of relevant technologies and processes (for example, to improve production processes, carbon footprint and energy consumption), the development of alternative fuel sources, 'ecofriendly' materials and environmental services. The South-West has a number of assets from which it can build to realise these opportunities. The Clean Technology Centre (CTC) at CIT is a not-for-profit environmental research and consultancy centre of excellence. CTC was established in 1992 and provides a wide range of services including strategic environmental management, sustainable waste management, clean technologies, cleaner production, environmental training, audits etc.

BioEnergy has the potential to reduce imports, Ireland's reliance on fossil fuels and carbon emissions, as well as creating alternative employment opportunities throughout the region. The SWRA is in the course of developing a regional BioEnergy Strategy.

Realising Potential

The development of a system for best practice exchange between authorities engaged in maritime spatial planning and integrated coastal zone management would enable accelerated and coordinated growth for alternative energy generation in the region³⁴.

An Energy Community initiative, Dundalk 2020 (see text box), has been piloted in Dundalk with the support of Sustainable Energy Ireland (SEI). SEI has expressed its intention to garner interest from other locations throughout Ireland to replicate the model. This could present a significant opportunity for the Killarney-Tralee hub in the region.

³⁴ Maritime Policy for the European Union - see http://ec.europa.eu/maritimeaffairs/

Summary

The South-West has a dynamic and broad enterprise sector, with predominance in pharmaceuticals, ICT (hardware and services) and food, and significant potential in tourism, medical devices, other internationally traded services and maritime activities.

There are not only opportunities within each of these sectors, but increasingly *across* sectors, driven by customer demands and enabled by developments in technology. There are many initiatives underway within the region to stimulate innovation, and given the nature of its existing enterprise and research base, the 'cross sectoral' aspects may present real opportunity for differentiation.

5. Realising Future Potential: Enhancing the Business Environment

The region has many of the building blocks in place to attract investment from foreign and indigenous firms. To achieve Ireland's ambition as outlined in the Smart Economy, the business environment needs to continuously evolve to meet the changing needs of companies it needs to provide a dynamic environment that is supportive of early start ups and entrepreneurial activities, that stimulates company engagement in innovation and R&D, and this ensures that companies have access to the high quality skills and supports they require.

Innovation & R&D

Innovative thinking and creativity is stimulated in an environment that is dynamic, interactive and collaborative. Innovation is about applying knowledge to translate ideas into high-value products and services. There are many sources of innovation, including end customers, firms with complementary products and/or services, and research institutes. Innovation can range from incremental (particularly in services) to radical or disruptive. Successful innovation at regional levels is based on the effective interaction between the elements and, in particular, engagement by firms. Successful regions do not operate in isolation, but do so within a wider national context. Interactions at both the national and international level therefore play an important role.

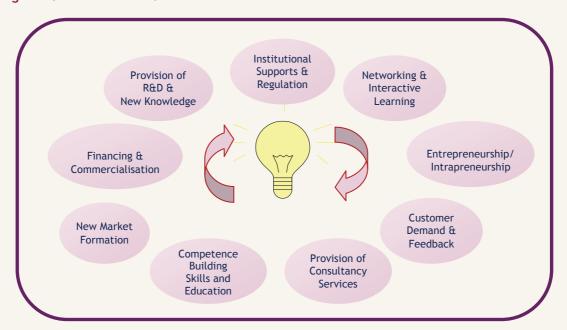


Figure 8: Activities that Stimulate Innovation

Source: Based on Edquist (2005) 'Systems of Innovation - Perspectives & Challenges' in Fagerberg et al (2005) *The Oxford Handbook of Innovation*

There is limited data available to accurately assess the innovative capacity of a region in Ireland, but what evidence there is demonstrates that the South-West has a number of critical building blocks in place including:

- A high proportion of holders of third level qualifications (at 28.6% follows Dublin and marginally behind that of the Mid-East)
- An attractive environment for those with degree or research masters
- A demonstrated reduction in unskilled workers over the period 2002-2006, coupled with an increase in professional, managerial and technical workers
- Well established Higher Level Education Institutes
- A demonstrated ability to attract funding for R&D, and a research centre of scale with over 300 researchers
- A range of incubation centres and innovation centres at different scales and with varying degrees of focus throughout the region
- A number of active and impactful industry networks and collaborative initiatives.

The Rubicon Centre

The Rubicon Incubation Centre provides an ideal environment from which to support the incubation and growth of technology businesses. The Rubicon incubation facility is adjacent to the CIT campus, and facilitates strong linkages between academia and business. The Centre is at full capacity and has plans for expansion to meet demand.

There is also a range of supports available through the enterprise development agencies including Industry-Led Research Platforms, TechSearch, Innovation Vouchers, supports for Innovation Partnerships and investments in Incubation and Innovation Centres. The Applied Research Enhancement Programme (operated by EI) funds the establishment of Applied Research Centres located in the Institutes of Technology. The objective is to increase the research capacity of the IoT and engagement with industry. As highlighted earlier, the investment by firms in R&D and innovation in the region is lower than one might expect given the high value added sectors in the region.

The *Drive for Growth* project funded under the Interreg IIIB NEW Programme and led by the SWRA examined in detail the issues surrounding research and development in the region. Many of the issues raised are not region specific, and many of the recommendations require change at the national level (and in fact, echo those advocated by a number of national advisory and industry bodies). The recommendations are presented here and should be considered in terms of what actions could be taken regionally/locally, by firms themselves, the HEIs and the enterprise development agencies to stimulate increased innovation:

Within HEIs through:

- Academic "incentives" and encouragement to engage with firms
- Stronger emphasis being placed on employing academics who have already worked in industry and on placing academics in industry
- Ensuring Intellectual Property ownership balance so that there is an equitable incentive for the individual and a fair return to the institution
- Involving industry more closely in course design and delivery

- Placing stronger emphasis on undergraduate and postgraduate placements in SMEs
- Developing enhanced understanding across research organisations of existing research competencies.

Within Firms to include:

- Advocacy programmes, to bridge the cultural gap between business and higher education³⁵Awareness raising with companies on the need to innovate³⁶
- Providing greater levels of fiscal incentives to innovate³⁷
- Opening up further opportunities for people from industry to work within the colleges
- Increased levels and awareness of professional development courses for people in firms
- The development of test and design facilities within the HEIs with affordable access for firms
- Enhanced awareness of the research competence that is in regional HEIs
- Increased student placement in smaller enterprises.

Local government bodies and agencies can also play a role in embracing IT and innovation in service delivery, which in turn builds capability and stimulates engagement by end customers.

Discussions at the workshop and through 1-2-1 consultation demonstrated an understanding across a wide range of stakeholders of the importance of innovation to the future growth of the region, and an ability to work collaboratively to achieve objectives. Objectives-focused initiatives tend to stimulate collaborative efforts to result in 'on the ground' action and impact.

Realising Potential

Locally driven efforts are being made to stimulate increased innovation in the region in a more structured and systematic way, and a Regional Innovation Cluster, led by the SWRA and interested stakeholders has been established. The Cluster involves the active participation of HEIs, the State, regional and local development agencies together with representatives of large and small industries. It is

A Science Innovation & Technology Park in Cork

The Cork County Development Plan contains an objective to develop a Science Park at Curraheen, adjoining the CIT and lands owned by UCC on the Western edge of Cork City. The scale of the proposed Science Park is ambitious, involving a land area of 50 hectares and an estimated floor space of 130,000m², which pitches the project at a European scale.

A Steering Group is being established to prepare a business plan and implementation strategy.

The County Council considers that this development will have a major influence in supporting the region's branding and image as a focus of the knowledge economy.

³⁵ Recently introduced by EI

³⁶ Programmes and awareness events are run by El

³⁷ Grant aid limits are guided by EU State Aid and Regional Aid Guidelines

focused on developing an environment which is conducive to innovation aimed primarily at building capacity, sharing knowledge and facilitating new company development and existing company growth.

There are two ambitious property proposals being considered including the development of the Cork Docklands within the city as a mixed-use innovative environment (to include housing, business and research institutes) and/or the establishment of a Science and Technology Park at Curaheen at the vicinity of CIT. Given that the proposals are within the Cork metropolitan area, a key challenge faces the councils (City and County):

- In determining the potential demand/occupancy if both projects were to be pursued
- In identifying complementarity and/or duplication of intended functions/objectives
- Of ensuring that management of the park(s) realises a return on investment over a reasonable timeframe while maintaining the integrity of the Science and Technology objectives
- That the environment will be such that it promotes interaction between companies and research institutes and genuine clustering, networking and innovation.

Entrepreneurship

A strengthened focus on entrepreneurship and on enabling indigenous industries to access international markets takes on heightened importance if we are to increase the contribution from indigenous enterprises to Ireland's future economic growth. The current economic environment, while difficult, can also serve to increase interest by individuals in starting their own companies, and indeed EI and the CEBs record intensified activity in this regard.

Research shows that the South-West has one of the highest number of established entrepreneurs amongst the regions. The rate of engagement by individuals in early stage entrepreneurial activity, however, is lower (and below the national average for 2008)³⁸. Having said that, early stage entrepreneurs demonstrate a focus and determination to build an export presence. The ITT Young Entrepreneur initiative should go some way to stimulating an increased interest by individuals to establish their own companies (See box).

Entrepreneurship - an Innovative Approach

The Young Entrepreneur Programme is the brainchild of businessman Jerry Kennelly and has been developed by the Institute of Technology, Tralee (IT, Tralee) and Shannon Development. Now in its second academic year, the programme targets second and third level students and aims to foster the entrepreneurs of tomorrow.

The programme has seen over 300 students submit business plans which are shortlisted to allow 15 finalists to pitch their business plans to the judging panel. Throughout the year they receive mentoring from companies in the Kerry region and hear from some of Ireland's most influential business leaders.

The development agencies, EI, the County Enterprise Boards and FÁS, play key roles in stimulating and supporting entrepreneurship and innovation in the regions.

³⁸ Fitzsimons and O'Gorman (2008) Entrepreneurship in Ireland 2008 - Global Entrepreneurship Monitor Annual Report for Ireland

Economic Role of the Hub Towns

There is potential *within* the region to create competitive environments to attract a concentration of new company start-ups in hub towns and other locations. There are a number of factors that can influence where new companies establish:

Physical Infrastructures

- The availability of competitively priced properties and attractive business and industrial parks that accommodate mixed-use businesses in a planned, strategic and discerning way that recognises the different needs of business activities (e.g. office, industrial, warehousing)
- Serviced office / business locations, that enable companies to access core support services such as reception, secretariat, accounting, HR, facilities management etc.
- Car parking and/or effective public transport networks
- Broadband capacity, competitive pricing structures and availability in business premises and in the home
- Quality of life housing infrastructures, travel to work times etc.

'Softer' Factors

- Access to regionally based skills
- Business management development, mentoring support and training
- Facility to harness the capabilities of HEIs and support to invest in in-firm innovation
- Access to markets and to market intelligence
- Facilitated networking, introductions and access to shared learning opportunities (e.g. through business networks, workshops, seminars).

Skills and Education

The National Skills Strategy, published in 2007³⁹, remains relevant today, particularly in the context of continued re-skilling and up-skilling of people within the workforce, as well as preparing those who have found themselves unemployed, to take advantage of new opportunities when the economy recovers.

Employees in all jobs will increasingly be required to acquire a range of generic and transferable skills including people-related and conceptual/thinking skills. Work will be less routine, with requirement for flexibility, continuous learning and individual initiative and judgement. The core skills of science, engineering, electronics and R&D related skills are relevant to a wide range of sectors, based on strong capabilities in maths and literacy, and are fundamental to the Smart Economy.

This report has outlined specific skills required for those sectors with high potential in the region, some of which can be delivered at regional level. Many sector specific skills reports

³⁹ Expert Group on Future Skills Needs (2007) *Tomorrow's Skills: Towards a National Skills Strategy*

highlight companies' views that graduates would greatly benefit from industry placements as part of their education programme.

Accelerated Gateway Development and the Atlantic Corridor

Cork plays a crucial role as a Gateway and economic driver within the South-West. The Atlantic Corridor initiative envisages critical mass being enabled through greater mobility and access between the cities of Waterford, Cork, Limerick and on toward Galway. Cork, with a population and output greater than that of the other three cities combined, plays a key role within the context of this initiative. It is important for the region that development capitalises on the strength of the Cork-Limerick connection (incorporating the Mallow hub), with a spill over of opportunity to adjacent areas including Tralee/Killarney. The development of the hubs and their interaction with their immediate hinterlands is fundamental to the wider region's development.

Accelerated development of the gateway has been identified as a priority within the NSS. The now deferred Gateway Innovation Fund (GIF) was welcomed as a competitive fund that would assist in focusing funding across a suite of infrastructures that would make a significant difference to the growth and development potential of a gateway. It was also intended to ensure that a metropolitan approach to planning was taken by all relevant local councils and authorities.

The increasing competition at the level of cities for FDI, coupled with the fact that internationally traded services activities tend (in the main) to congregate in well serviced urban areas that offer the type of workforce required, reinforces the importance of a concentrated and well functioning urban core, and the relevance of the GIF in achieving such an outcome.

Broadband

Today broadband is *the* fundamental building block for *all* sectors - not only for what might be termed 'knowledge based or modern' sectors but also for increasing productivity and/or 'refreshing' traditional sectors. Moreover, broadband is critical to enabling the regions to contribute effectively to Ireland's future economic growth as envisaged by the NSS. Currently the lack of pervasive, competitively priced, high quality broadband is a barrier to economic growth outside of Dublin, and to the realisation of the Government's SMART Economy agenda.

Cork City Council commissioned a study on the feasibility of a Tier I international connection between Cork and Western Europe in an attempt address the uncompetitive costs (relative to Dublin) faced by industry, and to enable Cork to compete effectively for FDI. Whatever the technical solution, the report documents the reality of this barrier to growth facing the regions.

Action is required urgently at the national level to address the cost and quality differentials between regional locations and the GDA in particular, and to address issues relating to local loop unbundling and access to the national backbone. Forfás has produced a number of benchmarking reports in relation to this, and a report on what needs to be done at a national level to deliver on competitively priced, high quality next generation networks (NGNs) will be published in the coming months.

The region could benefit from the existence of data centre infrastructures to support data and knowledge intensive sectors (in particular, a 'green' and energy efficient data centre), but it is not clear the extent to which (if any) the state has a role beyond ensuring that the relevant broadband and energy infrastructures are in place to encourage private development of such facilities.

6. Priority Actions

Over the consultation period for this report many issues were raised primarily in response to the particularly difficult economic environment which Ireland faces. All regions are witnessing a sharp increase in unemployment, and the need for labour activation programmes, supports and skilling for the unemployed and focused government action on stimulating growth was articulated. Many challenges require a national response, and are under consideration at Government level. This section outlines what actions can be taken now at regional and national level so that investments continue to be made to position the region to take advantage of growth in the future when this current economic crisis comes to an end.

A number of cross-cutting recommendations concerning national level action arise from Forfás' work in relation to all of the individual regions as part of the Regional Competitiveness Agendas process. These are set out in the final report: Regional Competitiveness Agendas: Overview, Findings and Actions, which is available separately. Key areas of focus are: infrastructure - planning, development & delivery; accelerated development of the gateways (including leadership and governance issues); and mechanisms to initiate and support enterprise related regionally based initiatives).

Governance and Delivery

There is a national imperative to establish a *regionally* based governance and delivery mechanism, which provides clear leadership to drive economic development in a cohesive and strategic way. Key stakeholders would include the regional and local authorities, development agencies and HEIs, who would proactively contribute to the delivery of regionally based strategies within the national context. Stakeholders would need to be empowered to make decisions and to deliver locally (this could include budgetary responsibilities with relevant VFM controls in place).

Given the critical importance of the accelerated growth of the Gateway, the need for a unitary approach to the development of the Cork metropolitan area is particularly important 40 .

Enhanced Agency Collaboration

Given the overlap and blurring between many of the sectors and underpinning competences, a cross sectoral and enhanced networked environment could serve the South-West region well. The McCarthy report proposes an amalgamation of many enterprise development agencies, and this is under consideration by Government. Notwithstanding, there is the potential for agencies to take a more collaborative approach to sectoral and enterprise development and to stimulating innovation.

⁴⁰ The Department of Environment has issued a consultation document on local governance of relevance to this issue generally and the McCarthy report has also put forward proposals for consideration

As companies themselves increasingly network, it presents opportunity for the development agencies in the South-West to enhance their collaborative actions to facilitate companies in this environment, and to:

- Provide clarity on the availability of business supports, the role of each regionally based agency and key contacts
- Facilitate interactions between HEIs and firms by promoting awareness of existing initiatives
- Work with companies and HEIs to consider work placement where students would take up opportunities in a flexible and cost effective way. A strong emphasis should be placed on developing the attractiveness of small indigenous companies, as placement locations
- Provide ongoing feedback on regionally based initiatives (whether driven by the agencies themselves or otherwise), to share experiences on what is working (or not) which will in turn inform the policy and planning process
- Proactively examine how levels of bureaucracy can be minimised in companies/ entrepreneurs dealings with the enterprise agencies and government.
- Given that much research indicates that companies consider graduates benefit from industry placements during their graduate programmes, the current environment could provide opportunity to take a proactive, regionally based and creative approach to deliver this.

Stimulating Entrepreneurship

- Taking into account the business environment requirements for entrepreneurship undertake an assessment of existing infrastructures (both physical and soft) and identify ways in which they could be further enhanced and be more cost competitive (for example, consider level/approach to development levies in certain locations)
- Consider the benefit of extending/replicating the Young Entrepreneurship Programme in other institutes/colleges in County Cork, harnessing the commitment of an industry champion
- Where appropriate for marketing the capability of a region, include relevant indigenous companies as demonstration sites on itineraries for potential overseas investors.

Enhancing Innovative Capacity

Studies have been undertaken for the region relating to innovation, innovation capacity, sources, interactions and barriers. The newly established Regional Innovation Cluster led by the SWRA harnesses the relevant stakeholders to drive collective actions to stimulate greater innovation.

The participants at the regional workshop contributed the following action points:

- Consider how best to enable companies (particularly small companies) to access technologies and research from HEIs, at a basic level such as:
 - Renaming 'Technology Transfer Offices,' a name which is not immediately intuitive to firms and which means more of a 'push' approach is often required to get firms to engage with research institutes
 - Restructuring HEI research websites so that they are more easily searchable in terms of technologies and their applicability as opposed to by Research Institute/Centre
 - Providing a directory of providers (HEIs and Agencies) together with a simple 'road-map' outlining supports available, contact points, depending on stage of innovative capacity/development of the company
- Changes in public sector procurement practices should be introduced to facilitate tendering by SMEs⁴¹
- Regionally based government bodies and agencies should assess how they themselves can engage in innovation, improve performance, increase service efficiency and minimise costs. Innovation in the public sector can improve innovative capacity within its own workforce, and stimulate innovative practices through business facing services (Development Agencies, Local Authorities).

Physical Infrastructures

Broadband

Many of the sectoral opportunities highlighted reinforce the criticality of infrastructures - both physical, in terms of international access, and electronic. The lack of high quality, cost effective broadband has been cited as an issue for many years now and is currently a barrier to the realisation of future economic growth in the region.

- While national efforts will have to be made to stimulate investment in telecommunications infrastructure and next generation networks, regional actors also have a role in stimulating demand and seeking out and promoting low cost solutions for the public and small industry
- The hub town of Mallow is one of a small number of NSS centres without a MAN, which needs to be addressed. In addition, an extension of the MAN in Cork City is required.

Roads

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The Cork-Dublin inter-urban motorway (M/N8) is on course for completion by 2010, with only the Portlaoise to Cullahill section remaining to be completed. Further improvements are required at the Sarsfield and Bandon Road junctions on the Cork

⁴¹ The report of the Procurement Innovation Group (July 2009) *Using Public Procurement to Stimulate Innovation and SME Access to Public Contracts* is relevant in this regard

South Ring Road. An upgrade to the Cork-Limerick (N20) leg of the Atlantic Corridor also needs to be progressed

- Going forward, major projects in preparation include the Cork north ring road (a continuance of the N22) and further improvements to the City's local roads network
- Developments on the N21 would 'complete the circle' and enhance access and improved connectivity between the Killarney-Tralee hubs and Limerick gateway, facilitating increased inter-regional mobility and potential
- The tourism, maritime and energy sectors have specific land use and access needs, depending on where the primary activities are located. For tourism, at a minimum a more integrated user centric transport system is required (e.g. to enable tourists to travel to a cycling destination). Substantial work still needs to be done to improve the Dingle-Tralee (N86) and Killarney-Cork (N22) routes
- Access to port facilities at Ringaskiddy need to be enhanced through upgrade of the N28.

Rail

Trains from Tralee to Cork, (via Killarney and Kerry Airport) although frequent, take between 2 and 2.5 hours, and are interrupted by changes at Mallow station, while by way of comparison a train from Cork to Dublin, covering more than twice the distance, takes only 2hrs 45min.

- Rail journey speeds will need to increase if rail is to remain a competitive transport option, especially considering the improved road and air connections which now exist between Cork and Dublin
- Potential may exist for the rebuilding of a short length of rail line between Patrickswell and Limerick. This would facilitate direct rail links between Cork, Limerick and Galway gateways, and would extend the Western Rail corridor South as far as Midleton.

Waste

Waste management is particularly important for the region given the nature of its industrial activities. Today existing facilities are unable to accommodate all of the region's waste (in particular hazardous waste) resulting in the export of large amounts of waste materials from the region.

- Forfás contends that regional waste management plans should be coordinated at national level to attract investment in waste infrastructure in a way that maximises potential economies of scale and competition
- Community buy-in to such initiatives can be challenging to achieve, and access to independent information is crucial to addressing concerns relating to health and/or environmental impacts and balancing these with an understanding of requirements for future economic development.

Appendix I

Enterprise Agencies, Initiatives and Supports⁴²

The enterprise development agencies play a key role in stimulating the development of new businesses, facilitating the expansion of existing companies, and targeting new foreign direct investment through a broad range of initiatives. In conjunction with Forfás they influence policy by providing on-the-ground information about the real issues facing business (in areas such as infrastructures, education and regulatory environment).

The agencies work together to market and promote Ireland internationally as a 'good place to do business' and with a strong reputation for high quality exports, and within that context marketing the capabilities of regions specific to potential investors' needs. All of the agencies work to deliver value for money for their expenditure, which is monitored using a range of indicators including increased exports, productivity, innovation and employment.

Enterprise Ireland

Enterprise Ireland's (EI) core objective is to drive export growth by creating and growing internationally competitive businesses and facilitating entrepreneurship throughout the country. EI has offices and representatives established in a range of locations, both regionally and internationally, and their regional headquarters are based in Shannon. They provide both financial and 'softer' supports to:

- Stimulate and support entrepreneurship
- Stimulate investment in R&D and innovation through financial supports, Intellectual Property advice, TechSource (technology acquisition)
- Support company expansions and investment in capital and productivity initiatives
- Provide supports for training and management development
- Facilitate companies to participate in trade missions around the world, enable introductions and provide guides to accessing new markets
- Provide supports for mentoring specific to a business' requirements (e.g. in marketing, finance etc.)
- Facilitate establishment of business networks and facilitate linkages with HEIs (through Innovation and Industry-Led Research Platform programmes, and through supports for Technology Transfer Offices)
- Support the provision of a range of property solutions.

⁴² This overview represents a selection of existing agencies, initiatives and supports and is not a complete listing

Enterprise Ireland Activity in the South-West:

The EI client base in the South-West (in 2008) employs over 22,000 people, accounts for approximately 7.5 % of total employment and is dominated by firms in the Food, ICT, Finance and Business services sectors.

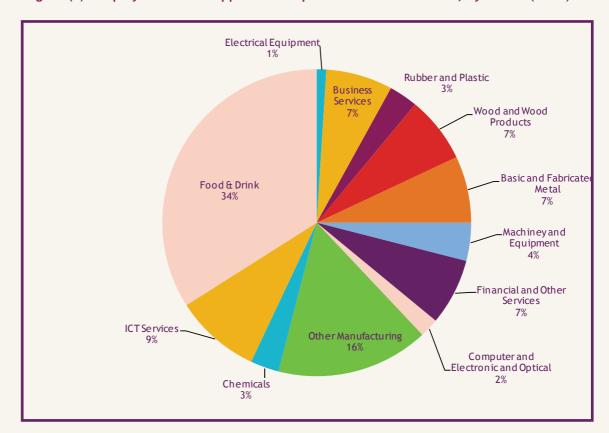


Figure (a): Employment in El Supported Companies in the South-West, by Sector (2008)

Source: Forfás, Annual Employment Survey, 2008

EI has supported the development of 19 Community Enterprise Centres across the region, with 10 in Cork county and City, and nine in Co. Kerry. The Agency has also provided funding for the development of Campus Incubation Centres at Cork IT and IT Tralee.

Under the Applied Research Enhancement Scheme, EI has funded the establishment and development of the Technologies for Embedded Computing Centre, the Centre for Advanced Photonics and Process Control and the Medical Engineering Design and Innovation Centre, all at Cork IT, and the Shannon Applied Biotechnology Centre at IT Tralee.

Other activities include the roll-out of the EnterpriseSTART campaign in the region to encourage the emergence of new high-potential start-up companies, and providing information and referral for established and nascent entrepreneurs to EI and other enterprise supports at a local level. EI also works closely with the CEBs in the region, for example enabling access to the EI First Flight programme to eligible CEB client companies who are ready to enter export markets.

IDA Ireland

IDA is responsible for the attraction and development of FDI in Ireland. It is focused on securing investment from new and existing clients in the areas of High End Manufacturing, Global Services and Research, Development and Innovation. Key sectors include Life Sciences, ICT, Engineering, Financial Services, International Services, Digital Media and Consumer Brands. The IDA is also focused on emerging areas such as Clean Technology, Convergence and Services Innovation - areas that offer exciting new investment opportunities.

The IDA attracts overseas and inward investment by:

- Focusing on business sectors that are closely matched with the emerging needs of the economy and that can operate competitively in global markets from an Irish base
- Building links between international businesses and third level education, academic and research centres to ensure the necessary skills and research and development capabilities are in place
- Pursuing Ireland's policy of becoming a knowledge-based economy by actively building world-leading clusters of knowledge-based activities
- Compiling up-to-date statistics and facts for research into industry, the economy and FDI in Ireland

The IDA also provides serviced sites, pre-planning approval and buildings (buildings are provided by the private sector on IDA serviced sites) for industry. IDA is developing a limited number of larger scale strategic sites that are intended to service utility intensive enterprise activity (e.g. bio/pharma manufacturing, data intensive services).

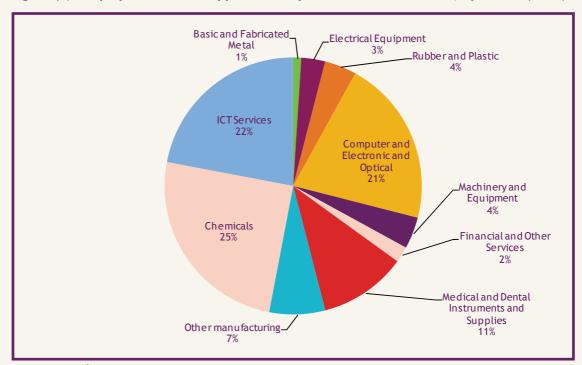


Figure (b): Employment in IDA Supported Companies in the South-West, by Sector (2008)

Source: Forfás, Annual Employment Survey, 2008

IDA Ireland activity in the South-West

The IDA Ireland client base in the South-West (in 2008) employs over 22,000 people, accounts for approximately 7.6% of total employment and is dominated by firms in the ICT services, Chemicals, Medical Technologies and Computer & Electronic products sectors.

A key activity for IDA in the regional context is the development of a strong value proposition for attracting high value FDI to the region based on its particular strengths and competencies, and leveraging complementary strengths and competencies in other regions.

Recent (2008 & 2009) major IDA project announcements in the South-West include:

Company	Project	Sector	No. of Jobs
Citco	Hedge Funds Admin expansion	Financial Services	150
DePuy	Products and Process Centre	Med Tech	20
Cognex	Manufacturing expansion	ICT	N/A
Pfizer	Biologics Facility	Pharma	100
Siemens	IT Solutions & Services	ICT	60
EMC	R&D/Software Development	ICT	50
ARRIS	R&D	ICT	N/A
Alcon	Expansion	Med Tech	186
Aetna	Expansion	ICT	70 (Kerry)
Marriott	Expansion	ICT	200
Option Wireless	Manufacturing expansion	ICT	145
Hovione	Purchase of Pfizer Loughbeg	Pharma	80
Trend Micro	EMEA HQ expansion	ICT	100
Big Fish Games	European HQ	ICT	100
Blizzard	Customer Support expansion	ICT	500
Pfizer	R&D Lab	Pharma	N/A
Gilead Sciences	Shared Services Centre	Pharma	30
Boston Scientific	R&D	Med Tech	N/A
McAfee	Sales Operation expansion	ICT	120

Údarás na Gaeltachta

Údarás na Gaeltachta is the regional authority responsible for the economic, social and cultural development of the Gaeltacht areas of Ireland. Its overall objective is to ensure Irish remains the main language of the Gaeltacht region and is passed on to future generations. Its economic mission seeks to encourage new investment and employment opportunities in Gaeltacht areas.

The Gaeltacht covers parts of counties Donegal, Mayo, Galway and Kerry - along the western seaboard - and also parts of counties Cork, Meath and Waterford. Údarás is structured on a regional basis (North, Connacht/Leinster and South) and has offices in Donegal, Mayo, Galway, Kerry and Cork. Key economic development activities undertaken by Údarás within the Gaeltacht areas include:

- Attracting high value investments (especially in high technology services), both indigenous and from overseas, to the Gaeltacht
- Providing attractive property solutions for enterprise development in the Gaeltacht
- Working to upgrade services and infrastructure (physical access and telecommunications) - especially where Industrial Estates and Business Parks are located
- Initiatives to strengthen the competencies and qualifications of the workforce
- Initiatives in support of entrepreneurship and early stage start-up companies, including provision of incubation facilities

In providing supports to both FDI and indigenous enterprise investments, Údarás operates within the same regional aid framework as EI and IDA and offers a similar suite of supports to enterprise as the other national agencies, in some instances effectively acting as an 'agent' for mainstream programmes managed by EI or IDA (for example the R&D programme and the more recent Enterprise Stabilisation Fund).

Science Foundation Ireland

Science Foundation Ireland (SFI) is the state agency that promotes investment in basic research, particularly in the science and engineering that underpin the fields of biotechnology, information and communications technologies (ICT), and energy efficient technologies⁴³.

SFI's stated mission is to "help build in Ireland research of globally recognised excellence and nationally significant economic importance through strategic investments in the people, ideas and partnerships essential to outstanding research in strategic areas." Specific functions in this regard include:

- Promoting, developing and assisting the carrying out of oriented basic research in strategic areas of scientific endeavour particularly in the fields of biotechnology, ICT, and sustainable energy;
- Endeavouring to ensure that a standard of excellence in the oriented basic research, as measured by competitive peer review on an international basis, is consistently adhered to at the highest level;

⁴³ SFI was established in 2000, as a sub-board of Forfás, to administer Ireland's Technology Foresight Fund. In July 2003, SFI was established on a statutory basis under the Industrial Development (Science Foundation Ireland) Act, 2003. SFI's remit was extended in 2008 to include energy. SFI does not have a specific regional development (or spatially driven) mandate and its activities are guided by the overriding objective to develop and support research excellence

- Developing and extending the national capability for the carrying out of oriented basic research in institutions;
- Promoting the attraction of world class research teams and individuals with a view to their carrying out oriented basic research in the State;
- Cooperating and collaborating with other statutory bodies in the promotion and encouragement of oriented basic research; and
- Devising, administering, allocating, monitoring and evaluating any grants, schemes and other financial facilities requiring disbursement of any funds authorised from time to time by the Minister with the concurrence of the Minister for Finance.

County Enterprise Boards (CEBs)

The South-West has three CEBs (Cork City & County and Kerry). The CEBs support the start-up & development of local business in Ireland. Supports include advice, mentoring & grants or financial supports for training and growth (as a guideline, the CEBs deal with client companies that employ less than 10 people). Through the CEB Coordination Unit based in EI regional headquarters in Shannon, the CEBs are developing a closer working relationship with EI, through for example the extension of the EI First Flight programme to eligible CEB clients ready to begin exporting or already exporting overseas and the EnterpriseSTART initiative.

Integrated Local Development Companies

In 2007, more coherent arrangements were put in place to have one integrated local development company providing a single access point for local communities. These local development bodies are responsible for the disbursement of significant public funds under a wide range of programmes in the NDP, including the Local Development Social Inclusion programme and LEADER and provide a range of enterprise supports to SMEs and start-up businesses. The following groups are active in the South-West region:

- Avondhu/Blackwater Integrated Local Development Body
- IRD Dunhallow Ltd.
- Meitheal Forbartha na Gaeltachta Teoranta
- North & East Kerry Leader Partnership Teo
- SECAD (East Cork Area Development)
- South Kerry Development Partnership
- West Cork Development Partnership Ltd.
- Comhair Chathair Chorcaí

FÁS

FÁS is the National Training and Employment Authority and provides training courses, apprenticeship programmes and re-skilling/supports. FÁS' Corporate Strategy sets out the strategic direction taken by the Authority and outlines the action that it will take to progress

the Strategy under eight high priority goals. These goals cover areas such as services for jobseekers and the unemployed, workforce development, labour market policy, social inclusion, equality and diversity, and customer service. FÁS have eight employment services offices in the South-West, and two regional training centres (located in Bishopstown, Cork, and Tralee, Co. Kerry).

Fáilte Ireland

Fáilte Ireland has three principal areas of operation:

- Firstly, the agency helps to develop product offerings for both the domestic and overseas markets and leads the marketing effort to promote Irish holidays to the domestic consumer
- Secondly, it supports enterprise development in Irish tourism, promoting best practice in operations, quality and standards and facilitating investment in tourism infrastructure
- Thirdly, it builds human resource capability in the industry, investing in training provision and standards across the publicly supported educational system, through a training network of outreach centres and also via executive and management development programmes for the tourism industry.

Regional support for people and enterprises is provided at a local level through the office of the Business Development Manager. The role of the Business Development Manager in each region is to liaise with industry stakeholders to provide support in developing businesses capability and standards to support business goals, service standards, profitability and long-term sustainability, in line with the key strategic themes identified in each region's operational plan.

Skillnets

Skillnets provides industry specific training programmes to employees of networks of firms, based on their defined needs. They primarily facilitate an enterprise-led approach to training and development and also aim to address the lack of investment in Human Resource Development by business by tackling some of the real and perceived barriers to training. Skillnets is funded under the National Training Fund through the Department of Enterprise, Trade and Employment.

Appendix 2

Business & Technological Parks and Properties

The availability of a choice of high quality property solutions to potential investors or start-up companies is essential. It is key to stimulating enterprise investment, concentration and well-planned, structured growth within a region. Such assets need to be regularly enhanced and strengthened in order to meet changing business needs. Below is a list of IDA and Shannon Development managed business and technology parks in the South-West.

Mallow Business & Technology Park

Mallow Business Park is a 7-hectare site located on the main N20 Limerick to Cork route. The park has been landscaped to a high standard and has a services infrastructure in place to accommodate both manufacturing and internationally traded services sector activities.

Fermoy Business and Technology Park

Fermoy Business & Technology Park is an 8 hectare park located on the main N8 national route connecting Fermoy and Cork City. The park is a fully landscaped high specification park with designs in place for advanced office facilities and technology buildings. There is a high standard services infrastructure in place.

Kilbarry Business & Technology Park

Kilbarry Business & Technology Park is a 55 hectare park located in Cork City, 5 km from the city centre. The park has been designed to a high standard to include a services infrastructure and landscaping to suit both manufacturing and international services sector activities.

The site boasts existing designs for advanced technology buildings and high specification office facilities as well as greenfield areas for future development.

Kerry Technology Park

KTP (managed by Shannon Development) shares a 113-acre campus with the Institute of Technology Tralee, which offers courses at Diploma, Degree and Post-Graduate level. With 3,500 students and over 250 academic staff, the Institute is an integral part of Kerry Technology Park. InnovationWorks Kerry, a high quality business incubation space, is also an integral part of the Park.

Carrigtwohill and Ringaskiddy Strategic Sites

Carrigtwohill and Ringaskiddy are key strategic sites developed by IDA Ireland to attract a cluster of cutting-edge multinational utility intensive industries to the South-West. IDA Ireland has assembled large landbanks, which are being promoted as key sites for large process industry. IDA Ireland is continuing to work with Cork County Council, Cork City Council and the utility providers to deliver the provision of services including gas, electricity, water etc. at these sites.

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