

REGIONAL COMPETITIVENESS AGENDA

Volume II - Realising Potential

Mid-West

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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 : Mid-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

² 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.

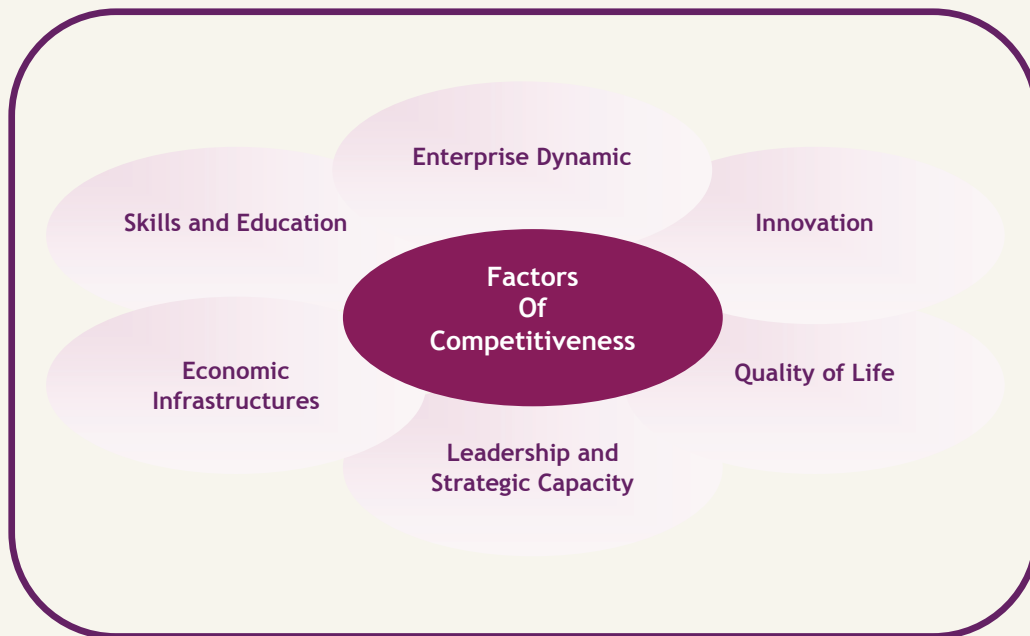
Competitiveness Factors

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 inter-linkages 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 Mid-West Region Today: A Summary

This summary highlights aspects that indicate the differentiating elements for the Mid-West Region - the complete report; *Regional Competitiveness Agenda: Volume I: Baseline Data and Analysis: Mid-West Region* is available separately.



Overview - Population and Growth

The Mid-West comprises counties Limerick, Clare, and North Tipperary and has a total population of 374,000⁵. Between 2002 and 2006, population in the region grew less in percentage terms than all other regions with the exception of Dublin. Since 2006, the population is estimated to have grown by 3.6%, compared to a State average of +5.2%.

Recent announcements by Dell will have a significant impact on the region, not only in terms of immediate job losses, but also in relation to its wider impact on firms providing third party services to the company⁶. A number of locally based initiatives have been instigated, including the establishment of the Mid-West Task Force appointed by the Tánaiste, and the establishment of *Túsnuá* - a collaborative approach to supporting individuals in re-skilling, up-skilling, seeking alternative employment and/or options such as entrepreneurship.

Enterprise Dynamic

The region has a higher proportion of its workforce employed in the manufacturing and industrial sector than any other region, a number of which are involved in high volume production. Construction too, plays a key role, providing almost 14% of total employment at

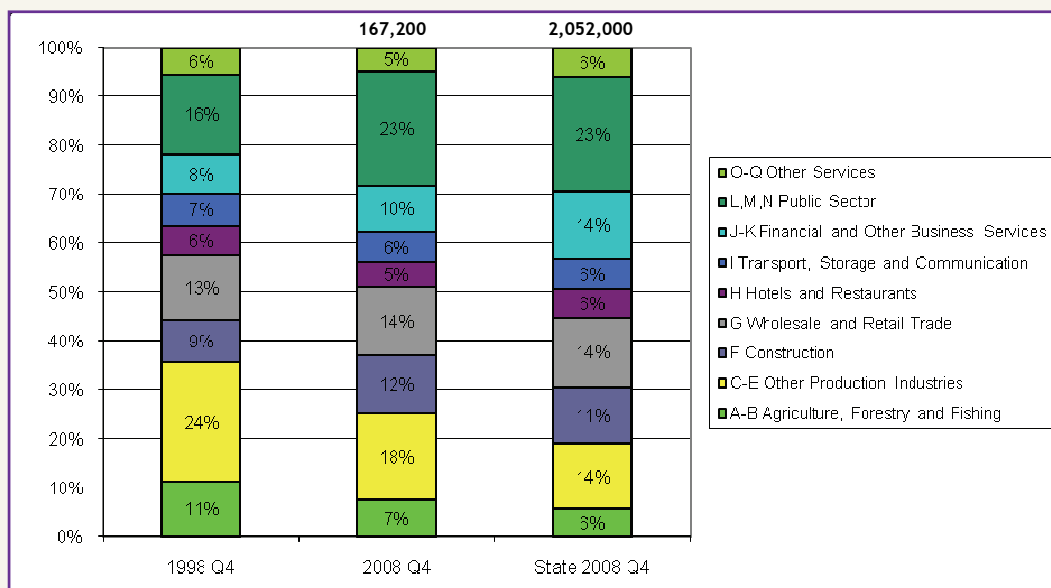
⁵ CSO (2009) *Population and Migration Estimates*

⁶ Dell plans to retain approximately 1,200 people in employment in Limerick

end 2007 (12% by end 2008), and representing the highest growth employer at +29% over the period from 2002. This economic structure renders the region particularly vulnerable to current global and national challenges.

Having said that, there has been notable growth in ICT services activity and internationally traded services activity generally as well as the Medical Technologies sector, and the region recorded the highest number of EI supported start-ups of all regions during 2007. Tourism plays a key role in the region that is served by many major tourist attractions and cultural resources. There is a strong capability in the food sector, where employment has been relatively static over the past decade, and a range of multinational companies involved in higher value manufacturing and R&D activities in ICT.

Figure 1: Distribution of Employment in the Mid-West by Sector, 1998 & 2008



Source: CSO, QNHS, Q4 1998 - Q4 2008

Skills, Education & Innovation

The region has a well developed and mature university and surrounding infrastructures in Plassey Technology Park, which provides an essential ingredient for regional economic development, combining education institutes, technology transfer offices and businesses on the campus. People with a 3rd level degree or higher in the Mid-West are underrepresented compared to the region’s share of the national population. Other regions such as the Mid East, West and South-West (with Dublin/GDA being an exception to all regions) perform better on this measure. The level of business expenditure on R&D is relatively high but it is limited to a small number of large companies, however it does demonstrate some potential for improving HEI-industry cooperation to increase innovation in the region. Overall, and given its strong infrastructures in particular, the region appears to be underperforming in terms of innovation capacity and performance.

Economic Infrastructures: Access and Connectivity

International access is a basic necessity for firms operating on the global markets, both in terms of physical access and the ability to transfer electronic data and information. The Mid-West is well served with an international airport at Shannon and inter-urban road and rail networks. Major infrastructure elements remain to be addressed which are fundamental to the region's development and to the realisation of the Atlantic Corridor concept and building critical mass. These include, in particular, the completion of the N18 to Galway and further improvement of the N20 to Cork. Broadband services, quality, cost and engagement by SMEs remain key issues, not only for the Mid-West, but to all regions (perhaps with the exception of GDA).

Quality of Life

The region has strong natural, cultural and recreational amenities, including the Burren and Cliffs of Moher, Lough Derg and range of water-based sports and recreation facilities which are key assets for the tourism sector, and also present quality of life attractions for a mobile workforce. Having said that, these positive factors are somewhat weakened by the high profile media coverage associated with Limerick City. Current initiatives to address the issues of marginalisation and social exclusion are critical, but will go only some way to addressing issues of perception and further efforts are required to 're-brand' the city in particular.

Leadership and Strategic Capacity

International research identifies the importance of local leadership in driving regional development, both in terms of infrastructures, concentration and well planned urban development, and in terms of building 'clusters' of enterprise activity that serve to stimulate further investment and innovation.

The functional area of Limerick-Shannon Gateway is served by four different local authorities. This has had a negative impact on the fabric of the core urban area, with development happening outside of the gateway and immediate environs. The gateway (along with its environs) appears to be punching below its weight in terms of economic activity.

Conclusion

The Mid-West is well served in terms of access and knowledge infrastructures particularly with its international airport at Shannon, deep sea port and Plassey Technological Park. It has the highest proportion of people employed in manufacturing than any other region and has been recently impacted by the considerable reduction in Dell's workforce. At the same time there is notable growth in ICT, Medical Technologies and Internationally Traded Services and a high level of High Potential Start Ups.

The region, however, is underperforming in terms of educational attainment, innovative capacity and investments in R&D. The strategic development of Limerick, as the gateway for the region, has been hindered by the fact that its metropolitan area falls across a number of local authorities, and the city also suffers from a negative image both nationally and internationally.

4. Realising Future Potential: Sectoral Opportunities

This section considers the assets of the region, and how they might be harnessed to further develop the existing enterprise base, and to capture future sectoral opportunities. The challenge over the next decade (faced by the entire country), is to shift growth toward export oriented sectors and activities.

The areas outlined below were highlighted during the regionally based workshop, informed by employment trends and the existing enterprise base⁷. The outline for each that follows demonstrates the suite of assets that provide a platform for growth; for attracting investment from foreign and indigenous companies, stimulating entrepreneurship and enabling companies based in Ireland to grow and target international markets.

- Medical Technologies - and the increasing convergence with ICT
- Food - taking advantage of depth of capabilities, natural resources, and changing consumer demands
- Internationally traded services - building on emerging growth opportunities
- Logistics and Supply Chain Management - taking advantage of infrastructures and local skills
- Energy and Environmental products and services - based on natural assets and R&D capabilities
- Tourism - based on historic strength, existing infrastructure and natural and cultural amenities.

Medical Technologies and Convergence with ICT

Advances in technologies and an aging population are driving developments in the LifeSciences sector as industry players look at new techniques and solutions for the healthcare system including, for example, diagnostic imaging, simpler medical kits for the home, less invasive treatments, restorative treatments and approaches to early diagnosis of disease that can lead to early intervention. Increased technology convergence is also stimulating more advanced innovations in product and services. Advances in ICT technology including nanotechnologies, micro technologies, 'lab-on-a chip', bioinformatics, sensors and wireless technologies offer significant potential for the medical devices sector.

Such convergence has the impact of blurring the lines between a number of sectors (in particular, Medical Devices, Pharmaceutical, Nutraceuticals/Functional Foods, Biopharmaceuticals and ICT) and results in a range of products and solutions that often involve alliances between companies from different sectors, increasing M&A activities, open innovation and new revenue sharing models. Because Ireland has a track record in each of

⁷ The sectors listed here should not be considered an exhaustive listing and are not listed in order of priority

these sectors, the potential is significant if effective interaction between the various sectors and players can be stimulated.

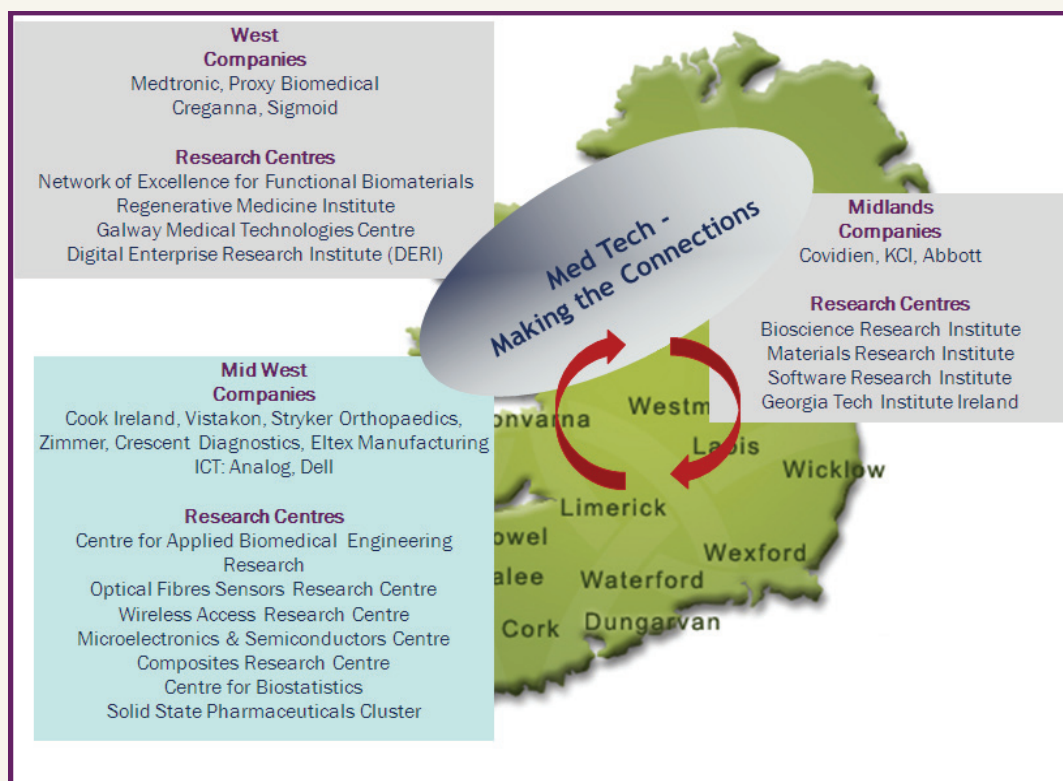
Manufacturing processes will become increasingly complex in this converged environment coupled with the needs for firms to focus on continuous improvement and increase engagement in process R&D.

Key Assets

The Mid-West already has a base of companies, core skills and research institutes in the Medical Technologies and ICT sectors. It is well positioned between the locations of Galway - with its strong cohort of companies and research capabilities in the areas of Medical Technologies and ICT, and Cork with complementary capabilities in Pharmaceuticals (see Figure 2).

It is particularly important for companies engaged in R&D to have direct contact with clinicians who themselves have time and resources dedicated to research. A Clinical Research Facility has been established at NUIG University Hospital to facilitate translational research (i.e. the translation of research from the laboratory into the market - *from bench to bedside*)⁸. Although the physical facility will not be completed until 2010, nine clinical research projects are underway.

Figure 2: Medical Technologies and ICT Assets



⁸ Funded by HSE/HRB

Realising Potential

Investment in skills to develop in-depth expertise in the area of Quality by Design (QbD), Process Analytical Technology (PAT) and Quality Risk Management are critical if Ireland is to build on its track record in high value added production. 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.

The Mid-West is well positioned to leverage its own cross sectoral capabilities together with those of its neighbouring regions to develop a strong and effective cluster. Building on existing networks in both the Medical Technologies and ICT areas to stimulate genuine interaction between companies and between companies and research institutes is particularly important in this regard.

The Food Sector

The dynamic for the food sector has changed significantly in recent years, transitioning from being largely production-led, to now being led by market demands. Today, many people are more focused on a healthier lifestyle and on 'wellness.' This has resulted in a growing demand for lifestyle related products such as health enhancing functional foods (e.g. cholesterol reducing products). 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.

The Department of Agriculture & Food is currently undertaking a review of the beef sector through the Beef Forum and is preparing a strategy which is due to be published shortly. Ireland has a strong reputation from which to build and future focus is likely to be on enhancing Ireland as a premium beef exporter with high standards regarding traceability etc.

Recent research by An Bord Bia highlights considerable market potential 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 attributes⁹. Ireland (and to a limited extent, the Mid-West) has a number of companies involved in functional foods/ingredients. What is of particular interest, and perhaps presents a cross sectoral opportunity, is the fact that the underpinning sciences, regulatory controls, processing technologies and the need for scientific evidence to underpin medical claims are very similar to those within the pharma and biopharma sector - in which Ireland also has significant expertise.

Key Assets

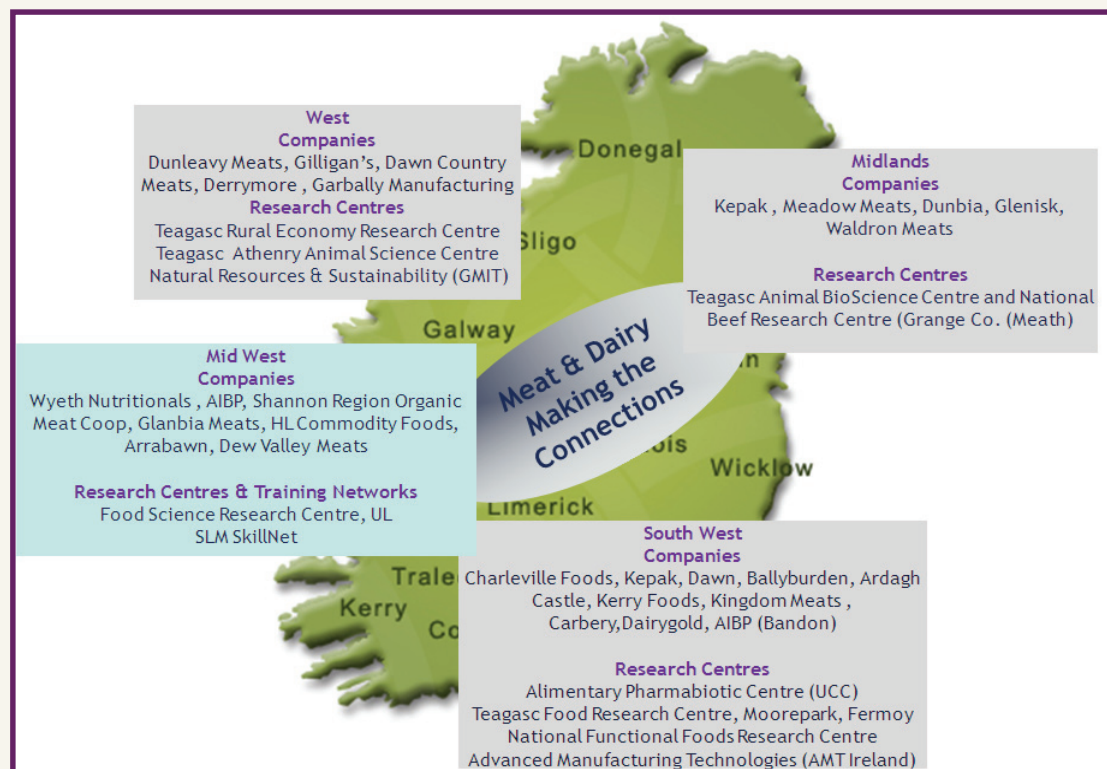
The food sector in the Mid-West is predominantly made up of companies that are involved in dairy and beef processing, with a small number involved in ingredients. It employs almost 4,000 people directly and has sustained employment at these levels for the past decade. The food sector contributes the highest proportion of IEE (Irish Economic Expenditure) in terms of

⁹ i.e. creating a new generation of high value food ingredients by extracting high value fractions from raw materials such as milk protein

salaries and third party services and materials than any other agency supported sector (although this does not take into account contributions toward corporation tax). Figure 3 overleaf highlights the relevant assets within the Mid-West and across neighbouring regions.

The research undertaken by Teagasc and the newly established Functional Food Forum and Research Centre (both based in the neighbouring South-West region) are particularly relevant for emerging areas in functional foods and nutraceuticals.

Figure 3: Food Companies and Research Centres



Realising Potential

The food sector is facing significant challenges, with lower value producers facing particular stresses. Irish food producers are also impacted by exchange rate differentials in their major UK markets. The food industry needs to increase its value added, diversify its markets and increase productivity to remain competitive in today's challenging economic conditions.

Actions required to stimulate the ongoing transition and development of the sector include:

- **Addressing cost competitiveness:** As a tight margin/high utility/high labour content sector, Ireland's relative competitive positioning is particularly important for the food sector. Although cost competitiveness is a national issue firms have already been taking action, through e.g. the Large Industry Energy Users Network which is supported by SEI and EI and in which many food companies participate.
- **Improving productivity and business processes** are essential for the food sector. The agencies actively support productivity enhancements, training and organisational change. A productivity guide for firms has recently been published by Forfás which

should provide a useful practical tool for companies to identify actions they need to take specific to their own company needs¹⁰.

- **Future Skills Needs:** The shift from a production-led to market-led model has implications for skills within the sector, and research by the EGFSN¹¹ indicates a significant shift in terms of skills needs. Investment in training to develop capabilities in continuous improvement, lean principles, automation and PLC control diagnostics is key to overall productivity improvements.

Of particular importance is the need to develop skills in supply chain management (SCM), international logistics and procurement, together with related technologies including RFID¹². There should be potential to leverage and/or transfer the region's capabilities in SCM for the ICT sector that have been built up through the presence of Dell. As companies seek to expand their markets from a reliance on the UK in order to minimise currency risk, skills in marketing, branding and languages become more critical.

Internationally Traded Services

Internationally trading services tend to migrate toward urban areas. 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.

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

The nature of the internationally traded services sector is such that high quality, competitively priced broadband infrastructures, and data centre capacity, are critical to attracting investment into the region in the future. 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. 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.

Although they have not grown to the same extent as other locations, internationally traded services activities in the Mid-West now represent 18% of those employed in agency supported companies in the region, compared with 12% in 1998. Key employers include GE Capital Services and Banta and indigenous companies such as Avvio, and a number of manufacturing companies have expanded their mandates to include shared services and headquarter activities (e.g. Analog and Cook).

¹⁰ Forfás (2009) *Boosting Your Company's Productivity - Simple Steps*
<http://www.forfas.ie/publication/search.jsp?ft=/publications/2009/title,4556,en.php>

¹¹ Expert Group on Future Skills Needs

¹² Radio Frequency Identification

Logistics and Supply Chain Management

Agile Logistics Hub

The concept of creating an Agile Logistics Hub (ALH) in the region was identified during the regional workshop as providing potential, largely driven by the existence of the international airport at Shannon. The optimum environment for a successful ALH involves the integration of infrastructures:

- **Transportation:** A multimodal interface within the hinterland of the airport combining air, road, rail and sea transport networks, together with the development of proximate transportation/distribution related businesses.
- **Industrial:** Plants should be located within clusters close to distribution companies and transportation infrastructures in order to optimize supply chain flows.
- **Information Technology:** Electronic support systems that enable the integration of the industrial and transportation infrastructures.

The concept requires that the airport acts as a central business district, around which clusters of aviation linked businesses develop. A ‘true’ ALH is based close to large metropolitan areas, with large population bases, extensive surface transport options and an accessible and sizeable market.

Supply Chain Management (SCM)

SCM encompasses the management of activities across the entire supply chain from product design, operations planning, procurement, inventory management, manufacturing and logistics. It covers the management of materials, information and funds flows and has a broad scope that includes sub-suppliers, suppliers, internal operations, trade customers and end-users. Companies in Ireland can develop and manufacture higher margin products, or engage in process design and pilot manufacturing, while at the same time manage the supply process for lower margin goods which may never land in Ireland.

At its most extreme a global company may outsource a large proportion of its business, maintaining only a coordination and management function to oversee international production and operations as they focus on higher value functions of branding, market share and innovation.

Key Assets

Because of the scale envisaged to support a ‘true’ ALH, the investment required in the region may not be justified in terms of future demand. That said, the Mid-West region has specific assets that could be harnessed to a greater extent. For example, international operators require technical stops on North Atlantic flows. Congestion at competitor airports generate opportunities for Shannon to improve and market cargo handling facilities and to develop a strategy and support services to attract carriers which need to make a technical stop on their way to/from North America. This would increase activities at the airport and provide an attractive resource for companies considering locating in the region.

Relevant Strengths Include:

- Excellent operational capabilities
 - No performance limitations
 - No slots, curfews or noise abatement restrictions
- US customs pre-clearance
- Considerable land available for development of cargo facilities, both on and near the airport
- Routing efficiency
 - Closest point in Europe to North America
 - Little circuitry between many points in the Middle East/Asia and North America
- Existing traffic base
 - Catchment area includes South and West of Ireland
 - Local manufacturing, including, food, ICT , pharma and medical technologies
- Large MRO capability for heavy maintenance and components.

Shannon's deep-sea port may also present opportunity for development of a European container transshipment hub. Although Shannon/Foynes Port company commissioned a report which was inconclusive about immediate prospects for such a venture, it is important that potential for developing this asset be kept under review particularly in the context of energy related industries.

Realising Potential

Logistics, SCM and physical infrastructures and related services are relevant to all sectors in the Mid-West and throughout Ireland. Before committing to the development of a large scale intercontinental cargo hub at Shannon (as a 'true' ALH), the aspects of demand and Ireland's location in relation to key markets need to be critically assessed in the context of both an increasing shift toward services based activities, and in terms of goods logistics - the increased demand for international deep-sea port facilities as the scale of cargo container ships increases significantly.

Dell, based in Limerick, was well renowned for its capabilities in SCM and in adding value by managing high-volume assembly activities to deliver products specific to customer needs. The expertise of this workforce in SCM could be leveraged to advantage in the Mid-West.

Energy and Environmental Potential

There is a major transformation under way in energy markets and energy supply that will give rise to opportunities and challenges for Irish enterprises over the coming years. The fundamental impetus for this transformation derives from resource depletion in hydrocarbons and the concerted global approaches being taken to addressing climate change.

The global environmental goods and services market is forecast to exceed \$700 billion by 2010 and \$800 billion by 2015¹³. Activities range from the design, manufacture and installation of advanced equipment and infrastructures, project management and engineering services and solutions, operational management of energy assets and infrastructures.

In such a context, there are opportunities for Ireland in the development of energy related activities.

Key Assets

The Mid-West appears to be well placed to exploit this opportunity:

- The Mid-West has the highest potential generating capacity of renewable energy in the country¹⁴
- A large share of State's energy (50%+) is already sourced from the Shannon region. Power transmission infrastructure and expertise in power generation currently exist in the region
- The largest renewable energy research centre in the state is based in UL
- An historic association with major initiatives in renewable energy - 1929 Ardnacrusha hydro electric power station - the biggest of its kind in the world at the time - produced 90% of Ireland's energy needs on completion
- The area already has large-scale power stations in Tarbert, Moneypoint and Tynagh and a gas transmission pipeline from Galway to Limerick which passes close to a number of potential locations suitable for gas fired generation projects
- There are 400 kV, 220 kV and a number of 110 kV circuits in the region. Eirgrid has planned key investments in the region's energy infrastructure, upgrading the transmission network in the region and urban centres of Ennis and Limerick and up-rating existing networks to facilitate higher capacity flows.

Tidal Energy

Sustainable Energy Ireland's report "Tidal and Current Energy Resources in Ireland" states that the majority of Ireland's tidal power potential lies on the west coast of Ireland, with the most potential concentrated in the Shannon estuary. That said, estimates indicate an economic return of a mere 8% return for a 20 year project to provide 2% of future predicted needs, based on the currently available tested prototypes. However, with further technological advancements, tidal energy may yet prove to be a crucial component of Ireland's renewable generation portfolio in the future due to its high predictability of peak and trough generation.

¹³ ENDS Directory 2008, UK Centre for Economic and Environmental Development Global Market Estimates

¹⁴ Source: Eirgrid (2008) *Grid25: A Strategy for the Development of Ireland's Electricity Grid for a Sustainable and Competitive Future*

The County Clare Wood Energy Project

This project facilitates and stimulates the update of wood fuel energy and is managed by Rural Resource Development in conjunction with Teagasc

It was established in 2005 and a number of systems have been installed in the medium scale commercial sector supplying heat to organisations such as hotels, care homes and factories

It demonstrates a regionally based initiative focused on harnessing natural resources

Research Centres

The Wave Energy Research team is based in UL, as is the Charles Parsons Initiative on Energy and Sustainable Environment (CPI). CPI represents a merger of six research centres and 30 researchers at UL, focused on researching environment and sustainable forms of energy across the areas of electrochemistry, physics, electronic, mechanical and aeronautical engineering, computer science, maths & statistics.

Biomass: Wood Energy

The Western Development Commission (WDC) published a report recently highlighting the potential for developing a wood energy sector in the Western region¹⁵. The region has a significant forestry resource (approx 11.5% of the land area). The report

contends that development of the wood energy sector would result in economic benefits for the region including: increased viability of the existing forestry resource; reduced oil dependence; increased supply of indigenous, sustainable fuel; and the creation of enterprise and employment opportunities in areas experiencing agricultural decline. The analysis pointed to the greatest viable option being in wood heating systems - specifically where fuel savings justify the capital investment.

It is an emerging market, however, and barriers to development need to be addressed if potential is to be realised. These include: limited market awareness and confidence; lack of capacity, skills and expertise in market and supply chain development; limited capacity of the forestry sector to enter the energy sector because of aspects such as plantation size; and inadequate local policy and regulation framework. The report highlights specific actions to address each of these and suggests that a Regional Wood Energy Advisory Group will oversee the delivery of the action plan over the three years.

Realising Potential

Being on the West Coast of Ireland, the region is well served with natural assets in wind and wave. The work of the WDC also highlights potential in how lands can be repurposed for economic benefit particularly in the areas of biomass. The research being undertaken in the SMARTBay initiative (Marine Institute) and in UL is directly relevant to the sector.

Our analysis highlights the building blocks that can be leveraged to develop a strategy for the region within the context of Ireland as a whole. A strategy should consider the specific elements of the sector most suited to the region's capabilities, and the key actions, investment and land use decisions required to make it a reality.

¹⁵ Wood Energy Strategy for the Western Region

Tourism

The tourism sector in the Shannon Region attracted €518m of visitor expenditure in 2007, 9% of the national total. Recent years have experienced a major shift in travel by holiday-makers from sea to air, brought on by the growth of low-cost carriers. Over 50% of the region's holiday-makers use Shannon Airport (according to Fáilte Ireland data), illustrating the critical importance of Shannon Airport. Route development and international connectivity through Shannon will be vital for tourism in the future.

Attendances at major tourist venues exceed two million visitors, reflecting the extent and scale of the region's formal visitor attractions. The region boasts a limited number of major attractions, including the Cliffs of Moher with almost one million visitors annually, the largest in the country, and Bunratty, Ailwee Cave, Lahinch Seaworld and Holy Cross Abbey each boasting circa 100,000 visitors. Investments since 1994 include developments in the Hunt Museum, King John's Castle, Birr Heritage Town, Kilrush Marina, Doonbeg Golf Resort, Cliffs of Moher Centre and resort regeneration in Kilkee and Lahinch.

Tourism in the region faces both challenges and opportunities, including:

- Shannon Region is now competing against attractive and cheap destinations elsewhere in Europe
- In the context of increasing tourist demands for a unique experience and authenticity, the region needs to develop a distinctive proposition based on a promotion of heritage and the 'old Ireland' (although these attractive elements for Ireland's tourism are slipping away), and that incorporates an expansion of modern activity-based and weather-independent holidays
- Greater networking, the building of information regarding tourist needs and the focused exchange of information is essential together with coordination between accommodation providers and activity providers.

The Shannon Region Tourism Strategy (2008) identified the importance of developing a clear and compelling product based on the distinctive assets within the region complemented by clear priorities for specific sectors:

Limerick City

The urban core provides the focal point of major services for the whole region. Limerick City comprises the main centre for accommodation, hosting an increasing range of hotels, with strong levels of commercial infrastructure, as well as entertainment facilities. The city needs to develop its capacity as a tourist attraction in its own right, and some progress has been made through the "Riverside City" and the "Medieval Quarter." The urgency of addressing the perception issues referred to above are heightened in this regard.

Atlantic Coast

The coast of West Clare, stretching from Loop Head on the south, to Galway Bay in the north, with a necklace of small coastal towns and villages, embracing the Burren and the Cliffs of Moher, is the main international-level tourism area in the region. This is a particularly sensitive landscape area, including unique flora and fauna, and conservation and protection of amenity are key challenges. Ennis offers a classic market-town environment with high standards of pedestrian streets and local shopping. Traditional culture and music are specific strengths of the town, associated with the surrounding rural areas.

Shannon River Corridor

The corridor of the River Shannon is the most important emerging tourism asset in the region, with three main areas: the Shannon estuary, Lough Derg and lower/mid River Shannon. The corridor is substantially under-used at present, and offers different experiences for water-related vacations. The potential here is particularly strong in activity-based tourism, including boating, angling, wildlife watching and walking, all supported by a network of small attractive villages with good local road access. Historical and heritage attractions are considerable along the river banks. Potential for new products is high, providing these are closely related to the specific characteristics of the area.

Rural Tourism

The Shannon Region contains a variety of rural areas and small villages, offering their own special attractiveness and distinctions, such as West and East Clare, Ballyhoura, Slieve Felim, Slieve Blooms, North Tipperary and others. The importance of these locations is that many have positive attributes of rurality, quality of life and small town ambience, with strong community consciousness and identity. Several groups have been particularly successful in promoting rural tourism, an important sector recognised as an alternative to farming.

5. Realising Future Potential: Enhancing the Business Environment

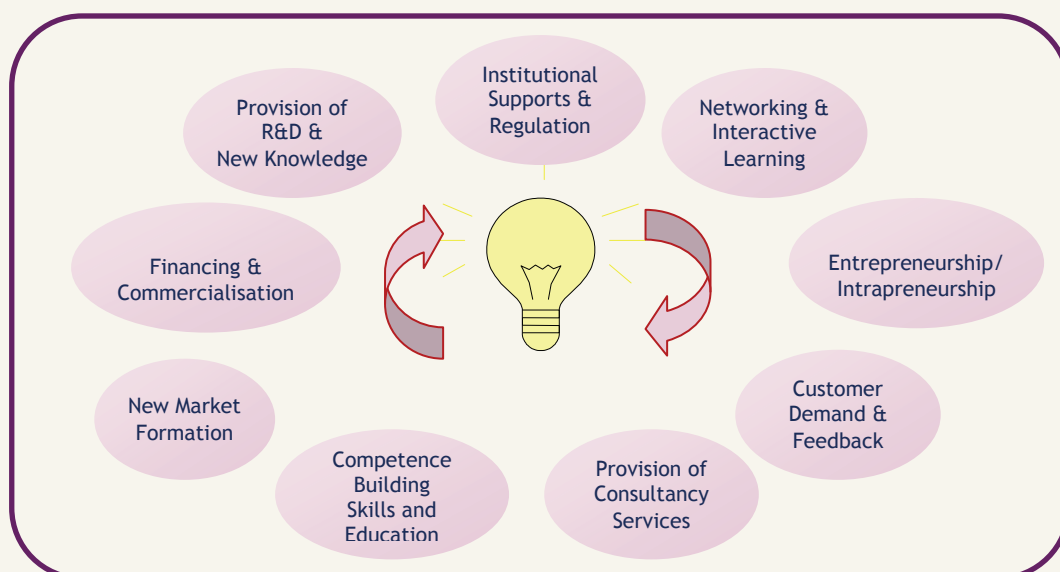
The region has many of the building blocks in place to attract investment from foreign and indigenous firms. The ways of doing business are changing. So too are the needs of firms in terms of an attractive business environment that enables them to compete effectively from Ireland on the global stage. To achieve Ireland’s ambition as outlined in the Smart Economy, the business environment needs to continuously evolve to meet these changing needs of companies - 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 that ensures that companies have access to the high quality skills and supports they require.

Innovation and R&D

Innovation is about translating 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.

The entire ‘innovation system’ involves a number of elements, each of which is important in its own right. Successful innovation at regional levels is based on the effective interaction between the elements and engagement by firms, Higher Education Institutions, Government Departments and Development Agencies. Regions do not (and should not) operate in isolation, but do so within the wider national context. Interactions at both national and international levels play an important role.

Figure 4: Activities that Stimulate Innovation



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

The factors that influence the development, diffusion and use of innovation are not independent of each other:

- Innovative thinking and creativity is stimulated in an environment that is dynamic, interactive and collaborative
- Enablers and supports provided by government facilitate innovation and range from establishing the 'right' fiscal, IP and regulatory environment, to supporting education and training, to providing funding for R&D initiatives and through to facilitating networks and 'on-the-ground' introductions and ease of access to technologies
- Government departments and agencies themselves can directly stimulate innovative capacity by developing innovative ways of enhancing service delivery and engaging with the business community.

Many of the building blocks are in place in the Mid-West region in terms of incubation and innovation centres, research institutes, technology parks and business networks.

There are also a number of supports available including company network supports, Industry-Led research Platforms, TechSearch and Skillnets. The development agencies and HEIs have demonstrated their ability to work collaboratively to achieve common aims - as evidenced by *Túsnuá* for example. Having said that, genuine networking and shared learning that stimulates increased innovative capacity appears to be relatively limited.

Engagement by SMEs in particular may be limited by firms' capacity to absorb and adapt new technologies developed by others (such as HEIs), or by their understanding of the benefits of collaboration with others in a way that realises the value of complementary capabilities (rather than direct competition in the same 'space'), or even a lack of awareness of the supports currently available to them.

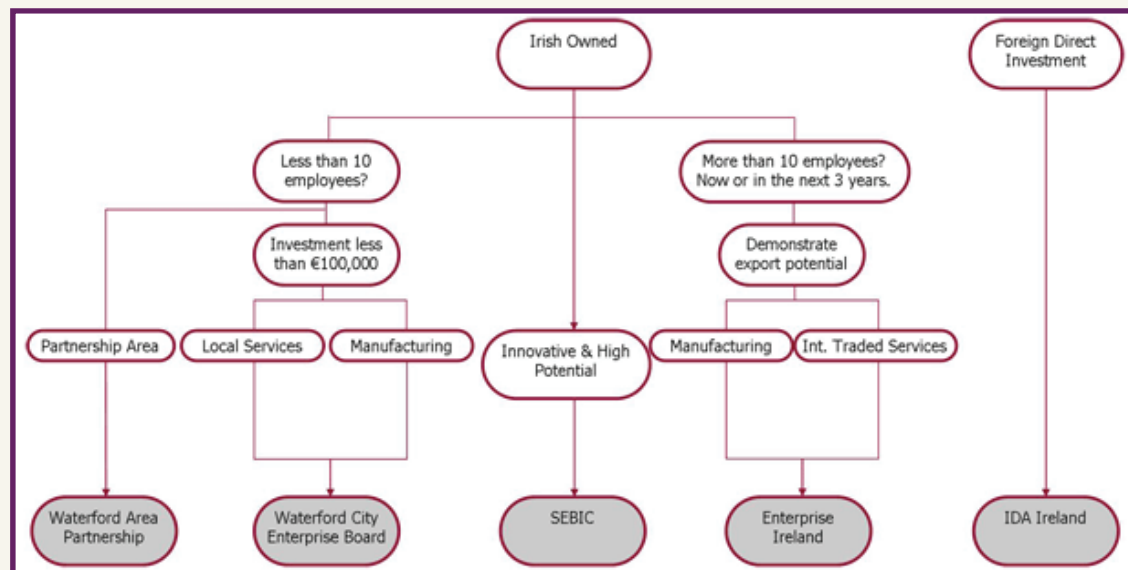
The challenge presents itself for the regional actors to harness resources and existing assets in a collaborative and cohesive way to continue to stimulate innovation and, in particular, engagement by SMEs.

Entrepreneurship

Whereas mobile investment tends to be attracted to the larger urban areas, 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. As people face unemployment many are stimulated to develop their own businesses and consider entrepreneurship as a realistic option. The region needs to ensure that it facilitates ease of access to the 'right' information at the right time and in the right way to enable individuals to realise their potential.

Waterford City Council has developed a website to provide a 'one-stop' information portal for businesses. It is a good example of what can be done locally and incorporates an excellent 'which agency can help me' chart (Figure 5 below).

Figure 5: Map of Enterprise Agencies from ‘waterfordbusinessinfo.ie’ website



There are a number of factors that can influence where new companies establish, and the regional local authorities, agencies and education institutes can work together to ensure that all the elements are in place and working in a complementary and interactive way.

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 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
- Ease of access to business management development, mentoring support and training
- Ease of access to harness the capabilities of HEIs and supports 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 downturn in the construction sector and unemployment resulting from Dell's recent announcement present challenges in terms of identifying alternative employment and re-skilling.

In the context of the Túsna initiative, FÁS and the development agencies have established a working group to address this immediate challenge. The agencies have focused efforts on addressing the short term issues facing the region by:

- Providing on site mentoring and advice to individuals on writing CVs and interview techniques
- Giving information seminars on 'start your own business', requirements, available supports, introductions to VC funds
- Identifying opportunities and supports for re-skilling and up-skilling with a particular focus on those who lack basic qualifications and need new skills sets to position them for employment opportunities in the future.

Taking a Proactive Approach

Túsna is a new initiative, launched by LIT, and including UL, FÁS, Enterprise Ireland, IDA the VECs, and the City and County Development Board which aims to retrain and educate those who have lost their jobs by providing comprehensive details about opportunities across the Mid-West. Túsna (translated as New Start) is a response to the increasing number of job cuts recently in Limerick and the Mid-West region.

The National Skills Strategy remains relevant and the potential for continued re-skilling and up-skilling those in the workforce should also be considered, particularly in light of the changing business needs that require multidisciplinary capabilities and innovative capacity. The National Skills Strategy points to the fact that increasingly employees in all jobs will 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, ICT and R&D related skills are relevant to a wide range of sectors - based on strong capabilities in maths and literacy - and fundamental to the smart economy.

Many sector specific skills reports highlight the companies' view that graduates would greatly benefit from industry placements as part of their education programme.

The delivery of appropriate initiatives to stimulate engagement in education and training (for longer term return), and relevant programmes is a national issue which has taken on a particular urgency in today's environment.

Accelerated Gateway Development

Given the importance of the urban area to a region's overall economic development and growth the issues identified above in relation to Limerick-Shannon take on a particular significance in terms of realising the full potential of the Mid-West:

- The current governance structures, which militate against more effective and strategic urban planning and development

- The image of Limerick city itself which, although based in the main on media coverage of activities generally limited to pockets of the city, has a negative effect on attracting potential investors.

It is important that a greater understanding of the interaction between the gateway and its hinterland is gained so that effective planning and actions are taken in a structured and considered way to ensure that benefits do, in fact, flow between the regional, rural and urban locations.

Limerick is also an important element of the Atlantic Corridor, and its own development is crucial to realising the possibility of building critical mass in the context of greater mobility and access between the cities of Waterford, Cork, Limerick and Galway.

Connectivity Infrastructures

As companies increasingly engage in activities that involve building direct relationships with customers, international management, and building new markets, ease of access is paramount (both physical and electronic), regardless of what sector and/or activity a company is involved in.

Broadband

High speed broadband is the critical infrastructure to enable regional development, and is a fundamental requirement for all businesses of the future. The opportunity for SMEs to improve business productivity, tap into new markets and to innovate in new service delivery can be facilitated through effective use of IT applications and broadband infrastructures. Broadband challenges need to be addressed at a national level and from a regional perspective the price performance differential is a significant disincentive for companies to base outside of Dublin, and is a barrier to realising the future potential within the regions.

The development agencies contend that the future needs of enterprise require investment in Next Generation Networks and have identified specific targets in their response to consultations issued by the DCMNR:

- Access to next generation infrastructure and services in all the gateways of at least 12Mbps uncontended, symmetric service for premises and homes by 2012
- Access to next generation infrastructure and services in all the hubs and county towns of at least 12Mbps uncontended, symmetric service for premises and homes by 2015.

Physical Access

The completion of a limited number of priority road infrastructures would considerably enhance the region's future potential, and enable it to realise its crucial role as a key element of the Atlantic Corridor concept. The international airport at Shannon is a strong base from which to build improved international access and to benefit a range of enterprise development, both directly (e.g. tourism, agile logistics hub) and indirectly (export oriented and global/European headquarter companies). The deep sea port facility at Shannon Foynes is another asset with potential in this regard.

6. Priority Actions

Many of the suggested actions below will serve to address a number of the opportunities and challenges identified in this report, and will benefit from increased proactive collaboration across the relevant actors in a structured way. There are many actions that can be taken at a regional level and others that require a national response. However, it is incumbent upon the regional actors to also consider how they can best take advantage of national initiatives, and their delivery locally.

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).

The following are considered of high importance in building a more competitive environment for enterprise development in the Mid-West:

Enhanced Development Agency Collaboration¹⁶

The areas highlighted in Section 4 are based on regional knowledge of the existing enterprise base and supporting assets. Further analysis will be required in some instances to detail specific actions to fully achieve the potential (for example, to develop an understanding of the skills capacities and specific capabilities in the regions).

As ways of doing business are changing, firms will increasingly engage in alliances, partnerships and networks, both in Ireland and across the globe. Business models are changing whereby open innovation (across companies) is becoming a reality; smaller technology intensive companies have a range of options for targeting their end customers, including entering into licensing and/or revenue sharing arrangements with larger global companies.

As companies increasingly network, it presents opportunity for the development agencies in the Mid-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 in order to avoid a 'pillar to post' scenario
- Facilitate interactions between HEIs and firms by promoting awareness of existing initiatives, and working across the community of multinational and indigenous firms - in

¹⁶ The recent McCarthy report will be considered by Government and may have implications for the agencies' operations in the regions. Given that it may be some time before decisions and more particularly implementation, becomes a reality - steps can be taken in the interim to address the complexities faced by potential client companies

particular the Industry Led Research Platform programme, engagement with Competence Centres, Skillnets sector specific training initiatives, and trade missions

- Building on the *Túsnuá* initiative, continue to develop a more structured approach for ongoing and proactive communications with the HEIs (in terms of innovation, technology transfer, skills needs etc), and with local authorities - focused on a clear agenda, objectives and actions.
- 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.

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).
- Where appropriate for marketing the capability of a region, include relevant indigenous companies as demonstration sites on itineraries for potential overseas investors.

Enhancing Skills and Innovative Capacity

- Given that much research indicates that companies consider graduates would benefit from increased industry placements during their graduate programme, the current environment could provide an opportunity to take a proactive, regionally based and creative approach in the short term. The development agencies should work with companies and HEIs to consider work placement where students can take up opportunities over the summer period in a flexible and cost effective way.
- Develop a compendium of skills required to service the range of sectors/activities highlighted, working from research already undertaken by the Expert Group on Future Skills Needs.
- In terms of innovative capacity, undertake a focused and targeted approach to building capabilities in firms in relation to innovation - taking into account the wider sources for innovation, including end customers, firms with complementary products/services, suppliers etc.
- Consider how best to enable companies to access technologies and research from HEIs including basic aspects such as the naming of technology transfer offices (not intuitive to firms), taking a proactive and open approach to IP negotiations, providing information based on technologies and their applicability (and not only by research department).
- 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.

Accelerated Development of the Limerick/Shannon Gateway

Branding and Perception

As highlighted earlier, despite having a range of natural, cultural and sporting amenities and attractions in the locale, some high profile negative quality of life aspects, associated with Limerick City in particular, appear to have impacted on the Mid-West's overall perceived quality of life. This is a key barrier to the region's development and should be addressed as a matter of urgency.

International research demonstrates an inter-linkage between promotion and branding of a location and 'stimulus' events including sporting, cultural and/or business conferences at a scale and quality that excites international interest. Many cities throughout the world have been successful in rebranding, including for example, Glasgow, Liverpool, Belgrade, Barcelona and many others. It is challenging, and requires concerted effort and the harnessing of resources to best effect.

The Mid-West Regional Authority should give further consideration to the suggested approaches presented by the participants at the workshop, including:

- London will host the Olympics in 2012 and the London City Council has indicated its intention to utilise resources from throughout the UK. Ireland has the potential to promote its internationally renowned National Coaching and Training Centre that incorporates a 50 metre swimming pool and training arenas, as well as accommodation facilities, as a valuable support environment for the games. Ease of access facilitated by proximity to Shannon airport and optional arenas in Thomond Park could serve to support the proposition.
- Limerick is home to the Irish Chamber Orchestra and may present an opportunity to develop an international festival (likened to the Wexford Opera festival) that would attract an international audience and gain increased exposure for the city as a cultural and tourism location.

Accelerated Development of the City Centre

- Although local and regional governance is relevant to all regions, the current administrative configuration relating to the Limerick-Shannon gateway appears to have a particularly detrimental impact on the Mid-West. Whether driven by political, historical and/or revenue potential considerations there is opportunity for the region and local actors themselves to present realistic and innovative options to address this issue.
- Develop the urban core of Limerick city in a structured and cohesive way, recognising its importance as a key driver of growth for the region. This requires, at a minimum, a coordinated approach by the relevant local authorities. Given its relatively low monetary scale relative to the potential positive impact on accelerated development of the regions, the possibility of calling for the reinstatement of the Gateway Innovation Fund should be strongly considered by the relevant influencing bodies at regional levels.
- Maintain the funding for the planned regeneration programme to help to change the fabric of the city and to address its negative image. It was anticipated that the funding required (of €3.2 billion) would come from both public and private sources, and

mechanisms to ensure that it is realised should be put in place (e.g. a statement of commitment by Government).

Both of these initiatives also present the immediate opportunity for continued employment which is focused on achieving longer term benefit for the region.

Physical Infrastructures

The following infrastructures have been prioritised as those deemed critical to underpin the development of enterprise:

- Accelerate the completion of the N18 which is critical to underpin future growth for the region, extend the access hinterland for the airport, and facilitate cross regional cluster development and ease of access to relevant research institutes in Galway.
- Improve the N20 (the Limerick-Cork leg of the Atlantic Corridor) to facilitate the development of critical mass and enable cross regional cluster development, particularly in the areas of ICT and Life Sciences.
- Improve the frequency of flights between Shannon and Dublin which is key to future development, both in terms of mobility of business executives and tourism. Improved infrastructures surrounding Shannon Airport and the port at Foynes, including rail and road links will underpin the potential for agile logistics. The region would benefit from a focused, realistic and complementary road-map between all relevant parties including Shannon Airport Authority, Shannon Port Foynes, Shannon Development, National Roads Authority and others as appropriate. The road map should have clear objectives, actions, budgets and responsibilities outlined.
- The availability of sufficient and competitive broadband remains a key priority for the region. Although this issue requires national level attention in stimulating the necessary investment, regional actors can play a role in seeking out innovative approaches to last mile delivery.
 - The town of Shannon and the hub towns of Ennis and Thurles are among a small number of NSS centres without MAN infrastructure and should be prioritised as part of future broadband investment programmes.

Appendix I

Existing Enterprise Agencies, Initiatives and Supports

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.

Shannon Development

Shannon Development’s main objective is to drive regional development in the Shannon Region of Ireland. Shannon Development’s mandate includes the following:

- To focus on the broader regional economic development of the Shannon Region
- To play a key role in the development of the potential of Shannon Airport
- To help build a viable counter-pole to the more developed eastern region in line with the NSS
- To give priority to less developed areas in the region
- To promote and develop the Shannon Free Zone
- To participate in initiatives with other key partners to identify and articulate needs of the broader Atlantic Region.

Shannon Development provides appropriate property solutions for both existing and potential FDI and indigenous clients, including the Shannon Free Zone.

Shannon Development initiatives of note include the E-towns Initiative, Shannon Broadband Ltd., Knowledge Network Locations and Kerry Deepwater Zone. Shannon Development is based in Shannon, Co. Clare with regional offices in Clare, North Kerry, Limerick, South Offaly and North Tipperary.

Enterprise Ireland

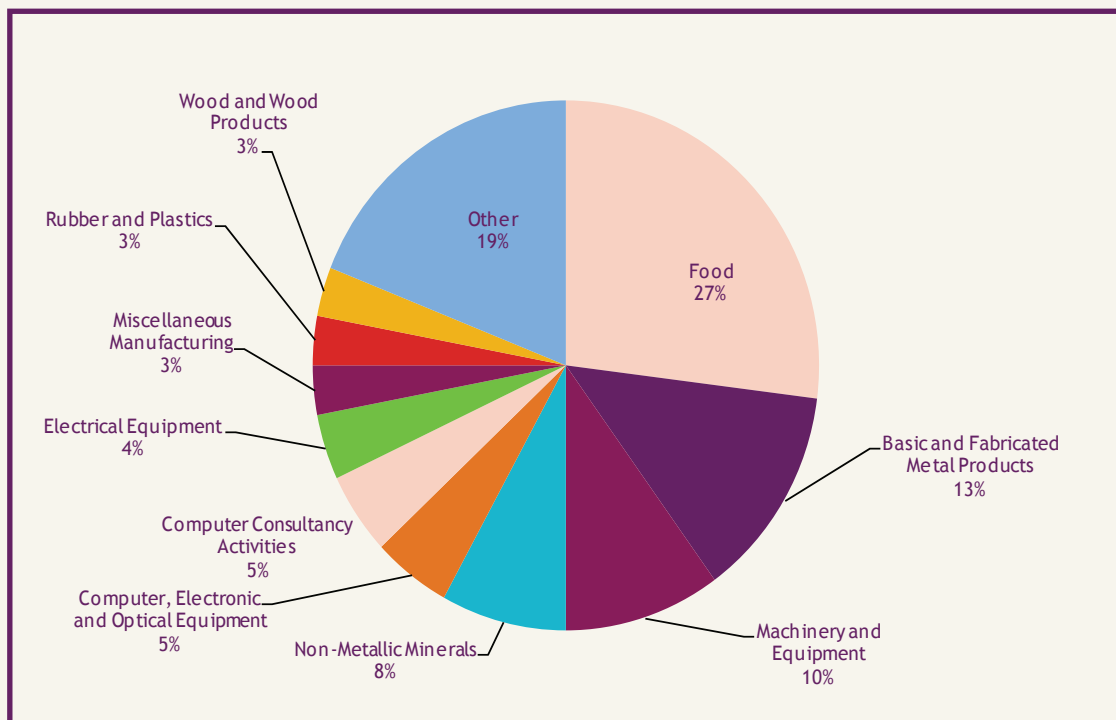
Enterprise Ireland’s core objective is to drive export growth by creating and growing internationally competitive businesses and facilitating entrepreneurship throughout the country. They have offices and representatives established in a range of locations throughout the country and their regional headquarters is based in Shannon. They also have a range of offices overseas that facilitate and support companies in gaining a foot-hold in new markets.

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 across 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, Industry-Led Research Platform and Business Networks programmes, and through supports for Technology Transfer Offices)
- Support the provision of a range of property solutions.

The Enterprise Ireland client base in the Mid-West (in 2008) employs over 10,941 people, accounts for 6.5% of total employment and is dominated by firms in the Food and Engineering sectors (see below).

Figure (a): Employment in EI Supported Companies in the Mid-West, by sector (2008)



Source: Forfás, Annual Employment Survey, 2008

Enterprise Ireland has supported the development of Community Enterprise Centres in Bruree, Ennistymon, Ferbane, Roxoboro Road, Kantoher, Kilcormac, Kilkee, Rearcross, Southhill, Killmallock, Farranfore, Kenmare and Kilgarvan.

The Agency has also provided funding for the development of Campus Incubation Centres at UL (National Technology Park, Limerick) and at Limerick Institute of Technology (Enterprise Acceleration Centre (EAC)). A Technology Transfer Office has also been established at UL, supported by EI.

Under the Applied Research Enhancement Scheme, EI has funded the establishment and development of the Shannon Applied Biotechnology Centre (ABC). Shannon ABC develops innovative products and ingredients from natural resources using novel processes to obtain value added food products, flavours and medicinal products.

Enterprise Ireland with other agencies is a partner in the Limerick IT led *Túsnuá* initiative, a web portal providing information on educational opportunities and entrepreneurship supports in Limerick and the Mid-West by way of response to recent job cuts in the region (other agencies include CEBs, FAS, LIT and UL).

Other activities include roll-out of the EnterpriseSTART campaign in the region to encourage the emergence of new high potential start-up companies and provide information and referral for established and nascent entrepreneurs about 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 foreign investment 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.

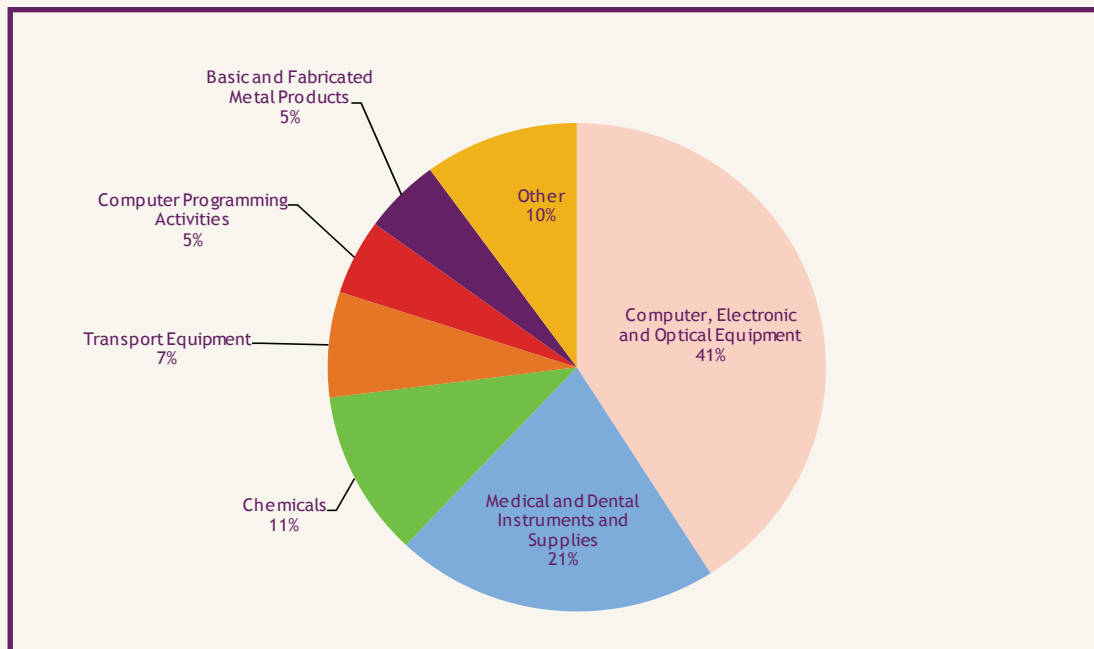
The IDA attracts overseas and inward investment by:

- 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 foreign direct investment in Ireland.

The IDA also provides serviced sites, pre-planning approval and buildings (buildings are provided by the private sector on IDA serviced sites). 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). In the case of the Mid-West region, property solutions are developed and administered by Shannon Development in close cooperation with IDA Ireland.

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



Source: Forfás, Annual Employment Survey, 2008

Recent FDI investments (over the past 3 years 07-09) in the Mid-West include:

Company	Sector	Location	Jobs
Intel Ireland	IT	Shannon Free Zone	Up to 134
Zimmer	Med tech	Shannon Free Zone	250
Vistakon	Med Tech	Limerick	60
Channel Advisor	IT	Limerick	15
ON Semiconductor	IT	Limerick	49
Cook Medical	Med Tech	Limerick	200
DTS	Engineering	Limerick	50
Microsemi	IT	Ennis	315
ACI Worldwide	IT	Limerick	100
Rovsing A/S	IT	Limerick	100
AR Europe	IT	Limerick	21

The IDA Ireland client base in the Mid-West (in 2008) employs over 10,242 people, accounts for 6.1% of total employment and is dominated by firms in the ICT and Medical Technologies sectors (see chart above).

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

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 technologies¹⁷.

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;
- 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.

¹⁷ 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

County Enterprise Boards (CEBs)

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 Co-ordination Unit based in Enterprise Ireland regional headquarters in Shannon, the CEBs are developing a closer working relationship with Enterprise Ireland, 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 (see above).

In the Mid-West region the CEBs are: Limerick City, Limerick County, Clare and North Tipperary.

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 Mid-West region:

- Ballyhoura Community partnership
- Clare Local Development Company
- North Tipperary Integrated Local Development Body
- West Limerick Resources Limited
- PAUL Partnership, Limerick

FÁS

FÁS is the National Training and Employment Authority and provides training courses, apprenticeship programmes and reskilling/supports. The agency's 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 six employment services offices in the Mid-West Region and two Regional Training Centres located in Limerick and Shannon.

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 an 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 a potential investor or start-up company is essential. It is key to stimulating enterprise investment, concentration and well-planned structured growth within a region. The Mid-West is well endowed with industrial property solutions and serviced sites, provided by Shannon Development, IDA and Enterprise Ireland as well as private developers. Such assets need to be regularly enhanced and strengthened in order to meet changing business needs.

Shannon Free Zone is a 240-hectare international business park adjacent to Shannon Airport. Established in 1959, the zone hosts 100 companies, and represents Ireland's largest cluster of North American investments. Proposals have been made for the regeneration of industrial properties on the zone

The National Technology Park was established adjacent to the University of Limerick in 1984 as Ireland's first science and technology Park. It is located on a 260-hectare parkland site on the banks of the river Shannon, three miles from Limerick city. Since its foundation it has established a strong local nucleus of high technology and knowledge based enterprises

Information Age Park Ennis was formally opened in 2005. It offers a managed environment for investors, close to Ennis town centre, in a compact 12-hectare urban site of high quality business space, in a landscaped setting.

Tipperary Technology Park in Thurles was opened in 2003, aiming to provide a high quality physical environment with telecommunications services adjacent to the Tipperary Institute. Total space available extends to 2,500 square metres,

Tait Business Centre was developed in the mid 1980s, to promote the development of small indigenous enterprises in Limerick City. One of the largest business centres of its type in Ireland today, the Tait is located in the old centre of the city with 54 units targeted at new start-up and small enterprises.

Raheen Business Park, on the edge of Limerick City, encompasses over 50 hectares, with considerable space for expansion.

WestPark Business Park, Shannon, spans 40 acres and provides high-spec amenities to High-Tech businesses

The Enterprise Acceleration Centre located on Limerick Institute of Technology's campus has business incubation units available to entrepreneurs with early stage companies who meet the criteria set by Enterprise Ireland for high potential start ups. The unit offers flexible solutions from taking a complete unit to a 'ready to go shared office solution', 'hot desks' and virtual incubation services.

Community Enterprise Centres: There are a total of 17 CECs in the region, providing accommodation and support services to micro businesses.

