



Understanding the Smart Economy



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Innovation

– putting ideas into action –

is the means by which

we will transform our economy.



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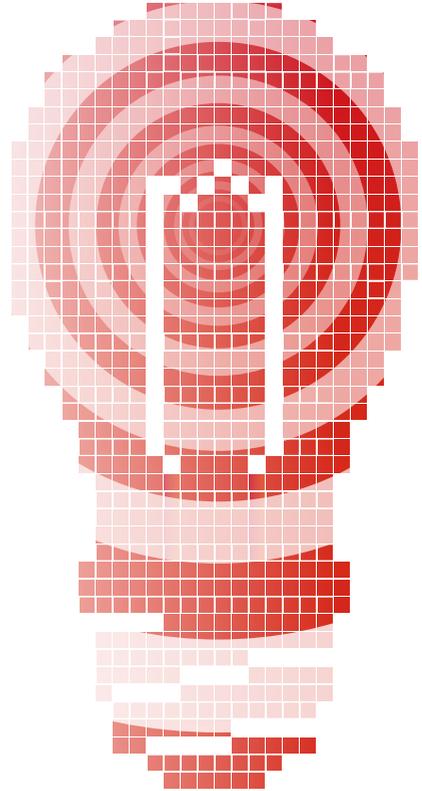
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The Smart Economy

The Vision for Economic Growth

Building Ireland's Smart Economy - A Framework for Sustainable Economic Renewal is the strategy for creating a knowledge-driven, inclusive and sustainable economy by harnessing enterprise and innovation to drive growth.

The framework describes how we can build Ireland's Smart Economy by leveraging the skills, knowledge and creativity of our people to grow business, improve energy security and promote social cohesion.

Innovation – putting ideas into action – is the means by which we will transform our economy. Creating a high-quality business environment is also critical to the success of the strategy. Vital industry supports must be put in place to assist Ireland's entrepreneurial spirit to convert ideas into valuable new work practices, processes, goods and services.

This Guide shows how some companies have already embraced new technology and ideas – and in some cases, completely redefined their business model – to create new products and services, increase productivity and boost sales.

Along with the *Smarter Business Guide to EU Funding for Innovation*, produced as part of the Communicating Europe Initiative, this publication is part of Chambers Ireland's contribution to the development of the Smart Economy.

Ian Talbot
Chief Executive
Chambers Ireland



Defining the Smart Economy

Against the backdrop of a fragile worldwide recovery, and systemic domestic problems that need to be tackled head-on, businesses in Ireland are addressing their costs and competitiveness as they put long-term strategies in place for growth.

As an economy, we must continue to become more cost competitive, increasing productivity in all sectors to win new business outside Ireland.

Innovation is essential to ensure real and sustainable growth and to help Ireland address its major challenges. We have to create new products and services, and to develop new ways of increasing the quality and quantity of what we produce.

The greatest immediate potential for innovation lies in the wider deployment and more effective use of digital technologies, especially Information and Communications Technology (ICT). A targeted effort is needed to increase the digital competencies and Internet use of small-and-medium-sized enterprises (SMEs) so that they can participate fully in the Smart Economy.

Critically, because of improvements in connectivity and technology infrastructure, Ireland's readiness to capitalise on the digital revolution has continued to improve. The Economist Intelligence Unit's highly respected Digital Economy Rankings placed Ireland 17th of 70 countries in 2010, ahead of several major economies including Germany.

For companies embracing the Internet the opportunities for innovation abound. On a strategic level, recent studies have identified Cloud Computing as a major opportunity for Ireland. Cloud Computing makes information technology a low operating cost rather than an expensive capital investment and this will help small firms in all parts of the economy to grow, as well as create many new business opportunities.



The growth of the digital content market offers particular potential for Irish enterprise: computer and web-based training, translation and optimisation of content, online gaming, digital television, e-learning, music and mobile/wireless services all offer companies a chance to monetise the knowledge of Irish people on an international scale.

Another significant opportunity for innovation is the development of the 'Green Economy' – generating opportunities from the inter-related challenges of energy security and climate change – and the potential for investment and jobs in clean industry and associated practices.

Any perception that the Smart Economy only applies to large multinationals and export-orientated companies is incorrect. While multinationals – along with universities, engineers and scientists – are integral to the success of the Smart Economy, SMEs have a key role to play in embracing its potential.





What the Smart Economy Means for Ireland

The Smart Economy means a return to competitiveness through innovation: finding creative ways to do more business, and to do business more efficiently.

These efficiencies can also generate environmental benefits by helping companies to reduce both carbon emissions and the use of fossil fuels.

Establishing Ireland as an innovation island will require an expansion of the existing research and development base and the intensification of R&D investment.

In tandem with a favourable tax environment for multinational enterprises, new financial incentives must be devised to assist indigenous start-ups, to grow existing SMEs and to encourage innovation.

To ensure the availability of a skilled workforce, continued investment in education at all levels is essential. A focus on science, maths, eSkills and entrepreneurship is particularly important.

Beyond the formal education system, a concerted effort is required to increase the digital literacy of the entire population; which in turn will increase the availability of eSkills in the workforce and the demand for online products and services.

We also need to continue investing in our broadband infrastructure and to prioritise the rollout of Next Generation Networks (100+Mbps Internet connections).



The Smart Economy in Action

The Smart Economy is everybody's business. It is not something that happens only in science labs or in large multinational companies; it is relevant to and achievable by companies of all sizes throughout the country.

Here, we show how several Irish companies are embracing smarter ways of doing things.

Catch FM

Changing the radio game

Catch FM, founded by 25-year tech veteran John Shiel, is an example of an Irish company applying technology to solve two vexed questions: the relevance of radio in an age of audio-on-demand, and the monetisation of digital content. Catch's platform – compatible with web browsers and mobile devices – allows radio listeners to see images of a band or artist as their song is played, link to related music videos, and find out what songs have been played earlier in a given programme.

Crucially, users can legally download a song they enjoy through a simple payment scheme. The Catch platform already operates on RTÉ's 2FM site, and the company is actively marketing its unique proposition to stations internationally.

Curragh Tintawn Carpets Ltd

The carbon-neutral evolution

Curragh Tintawn Carpets, located in County Kildare, has been manufacturing carpets for almost 75 years. The company, which supports local agriculture by purchasing all raw materials locally, has harnessed environmental awareness to create a new opportunity.

With the aid of new manufacturing technologies, Curragh Tintawn unveiled Swaledale, the world's first certified carbon-neutral carpet range.

The range is marketed to increasingly carbon-conscious homes and businesses in Ireland and abroad, reinforcing the company's reputation as a high-quality provider in a competitive marketplace.



Dromad Hire

Fighting fit with a new business model

The collapse of the construction industry in Ireland meant that Dromad Hire, which offered heavy DIY and construction equipment to both homes and commercial enterprises, needed to revise their business model. The management at Dromad redefined the company, harnessing understanding of the equipment and plant hire sector – along with existing e-commerce expertise – to the fitness equipment market.

Dromad has focused on the home and DIY user, adopting and integrating new technology to develop www.fitness4hire.com.

The website, which particularly benefits from consumers cancelling gym memberships in favour of home exercise, also includes an extranet facility so clients can easily access their information.

Fitness4hire.com's success has enabled the Louth-based company to deliver across the entire island of Ireland.

Piercom Limited

Changing the research paradigm

Based in County Clare, Piercom Limited provides information technology integration solutions and services to the financial, industrial and government sectors.

The company has developed a new model of academic and multinational corporation research clustering: under Piercom's innovative model, the SME drives research into new software and technology based on market needs rather than reacting to research developments.

The company is a past winner of the European e-Government award for its leadership in web services solutions, and has a list of blue-chip clients including General Electric Corporation, Dell Computers, Johnson & Johnson, Elan Phamaceutical, Analog Devices, and several Governments.



Torpey Wood Products

Innovation from waste

John Torpey, owner of Torpey Wood Products in County Clare, began manufacturing clean, green eco-fuel in briquette form in 2009.

This venture arose out of a by-product from a far more traditional business – making hurleys.

“The idea to make the briquettes came about because we have vast amounts of waste from making hurleys, and we had no idea what to do with it initially. We started using it as bedding for horses but the income from that was infrequent and it became clear that the demand for bedding was nowhere near equal to the supply that I had available,” he explains.

“50 per cent of every hurley we make here is waste and we produce between 60,000 and 70,000 hurleys every year,” continues Torpey. “I asked for the waste material to be tested before we manufactured anything with it. The results that came back suggested that we had some of the best manufacturing material that had undergone certification testing and so we decided to manufacture briquettes with the waste material from the hurleys.

There are no additives whatsoever in our product and there is next to no waste left from the briquettes once they are used.”

Cutting red tape

Getting Torpey’s innovative new business off the ground required a smart idea, technical expertise, and capital for manufacturing equipment.

The latter has been hard to come by but, fortunately, Torpey himself is committed to the project. “It was very difficult to get any funding or financial assistance when we first started out and so I’ve had to fund almost all of the project myself,” he explains.

“I found that there was a lot of red tape, which was very frustrating. It’s not easy for entrepreneurs like myself to get projects like this off the ground. This is an area that must be looked at if we are to be successful in building the Smart Economy in Ireland.”



Crospon and HP

A painless partnership

Hewlett Packard may be best known as a maker of computers and related hardware, but its printer technology is providing an innovative solution to an age-old medical problem: the dislike that many children and adults have towards the hypodermic needles used to inject many drugs.

Originally based on HP printer technology the company has, through a license from HP, developed a new skin patch using the same microneedles that play a key part in modern inkjet printing to deliver drugs painlessly into a patient's bloodstream.

An Irish company – Crospon, based in Galway – has taken a leading role in bringing this innovative product to the market. Crospon, which has been licensed to develop and manufacture the patch, has a proven track record in developing life-saving treatments and devices.

"If one looks at our company history, we have licensed many of the patents and developed many of our own products," says company CEO, John O'Dea. The company employs 18 staff at its Galway headquarters.

A better support system

When it comes to the wider economy, O'Dea agrees with many entrepreneurs that SMEs need more encouragement to drive innovation.

"A lot of the Smart Economy initiatives seem to be directed towards universities. However, we have a huge advantage by virtue of the fact that we have so many multinationals here. People in Ireland can learn their business or trade in a global sense in these global companies. It is a great source of learning and knowledge for Irish entrepreneurs. We have 15 of the top medical device companies in the world here in an area the size of Manchester – that has to have a beneficial effect," he remarks, adding that the support structure for developing innovative ideas needs to be improved.

"If we look at the current supports available, they exclude supports for start-ups. People who have come directly from the industry, for example, have set up a lot of companies that are in our sector; they have run R&D in big multinationals and so they know what it takes to succeed. These are the very companies we should be helping."



Celtic Linen

How smarter systems improve a traditional business

Celtic Linen, a family-run business in Wexford, is one of the largest laundries in Europe, with a capacity to process over one million garments per week.

The company, which operates from a high-tech facility in Drinagh, focuses on the health, hospitality, and workwear sectors.

Celtic Linen's continued growth made implementing cutting-edge IT essential.

A micro-chipping system for garments is just one way in which the company has harnessed new technology to increase its efficiency and the level of service it provides to its clients. It enables Celtic Linen to trace garments by using an in-house microchip system and a barcode system when the garment leaves the facility.

This technology allows them to trace individual garments, while also supplying intricate detail on how many washes a particular garment has had, when it needs to be replaced and exactly where it is in the country at any given point in time. This helps when it comes to operating within the exacting standards of healthcare and it enables the company to comply with the necessary regulations of the industry in a much more efficient way.

With the potential dangers of infectious bacteria in hospitals and medical centres throughout the country, clients need to be sure that all of the garments that they use within their facilities are of the highest hygienic standard possible. They need to know that anything supplied to them has gone through a rigorous process that will ensure that any microbiological elements have been discarded in accordance with Risk Analysis Bio-contamination Control (RABC) standards.



Looking to the Future

While Ireland's Government faces real fiscal challenges, investment in the new economy will be critical to Ireland's recovery, continued success and sustainability.

To build the Smart Economy we need to make continuous investments in broadband connectivity and our technology infrastructure.

Ireland must also invest in the quality of its education system and ensure that it is producing the right type of graduates, experience and expertise to support the growth of the economy.

Retaining a low corporate tax rate, which continues to attract a level of foreign direct investment (FDI) that is the envy of other jurisdictions, will be crucial to developing all elements of the Smart Economy. Low marginal tax rates have been a central pillar of Ireland's industrial policy and will continue to be a key driver of economic advancement by ensuring Ireland remains an attractive location for FDI.

However, we also need to develop new financial incentives to encourage entrepreneurship, innovation and the growth of SME's. In particular, there needs to be a significant increase in the availability of capital and business networks for research-intensive start-up companies.

Government also has a role to play in delivering timely planning decisions and an efficient regulatory environment to lower the cost of compliance for businesses of all sizes.

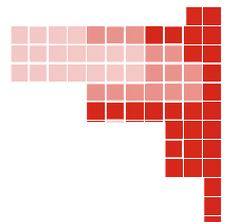
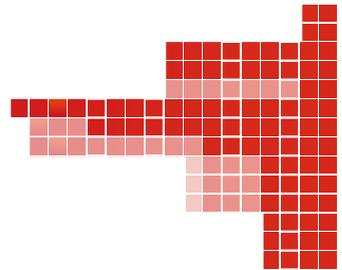
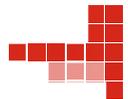
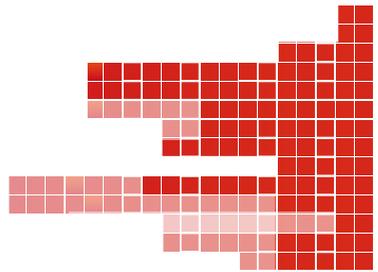
Ireland retains many significant advantages, including a location as a gateway to both the US and Europe, a highly trade-orientated economy with a strong exporting tradition, and an impressive history of entrepreneurship and innovation. All of these advantages must be leveraged to facilitate Ireland's growth as Europe's answer to Silicon Valley in the United States.

The past few years have taught the Irish people harsh lessons about the consequences of unsustainable economic growth patterns. The creation of real growth, based on innovation, productivity gains, and the pursuit of new opportunities, will require the Government to act decisively and in concert with multinationals and SMEs to reinvigorate Ireland's entrepreneurial spirit.



Useful Links

- www.biotechnologyireland.com
- www.djei.ie
- www.digital21.ie
- www.education.ie
- www.enterprise-ireland.com
- www.epa.ie
- www.esa.int/esaNA/galileo.html
- www.finfacts.ie
- www.forfas.ie
- www.ics.ie
- www.idaireland.com
- www.innovationalliance.ie
- www.innovationdublin.ie
- www.innovationireland.org
- www.merrionstreet.ie
- www.sciencecouncil.ie
- www.seai.ie
- www.sfi.ie
- www.taoiseach.ie





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to ensure real and
sustainable growth and
to help Ireland address
its major challenges.*



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