

Best Connected[©] Software from Ireland

A strategy for development of the indigenous
software industry 2009-2013

Irish Software – a Modern Success Story

Over the past thirty years, Ireland has built an international reputation as a centre of software excellence. The industry has two complementary elements: a strong cadre of international companies that are global market leaders, and a larger number of indigenous companies who have achieved significant success on world markets. The Irish software industry is recognised internationally as being highly innovative, technically expert, and commercially adept.

The indigenous software industry today comprises over 500 companies, employing over 10,000 people, with combined sales of €1.4 billion, the vast majority of which is exported. There is a strong entrepreneurial culture which typically sees the emergence of over 30 high-potential start-up companies every year.

KEY STRENGTHS

The development of the software industry in Ireland owes much to the enterprise environment, which provides a uniquely supportive ecosystem within which individual firms can thrive. This includes:

- **Young, skilled workforce:** The software sector in Ireland has been driven since its inception by the availability of a young, highly skilled and well-educated workforce. The future of the industry is underwritten by continued State investment in education and research.
- **Research and development:** Over the past ten years, the Irish Government has substantially increased its investment in R&D, both in the third-level education institutions and in industry. Information and Communication Technologies is one of the two priority areas supported by Science Foundation Ireland. As a result of this and other initiatives, investment in third-level R&D has quadrupled, and business expenditure on R&D has also risen significantly. For its part, Enterprise Ireland has invested heavily in initiatives that facilitate collaboration between academic researchers and industry, to ensure the optimum use of resources and support the successful commercialisation of research results.
- **Specialist Clusters:** The software industry in Ireland has developed deep sectoral expertise in a number of specialist areas, including telecommunications, finance, and e-learning. Strong networks of companies within these clusters have ready access to leading-edge university-based R&D, and provide a solid base for future growth and development.

- **Multinational Presence:** Almost all of the world's leading software companies, including IBM, Oracle, Microsoft, Google, and Facebook, have a significant presence in Ireland. Not only are these companies important exporters of software, they also contribute significantly to the development of the local skills base in software engineering, in the use of the latest technologies and platforms, in product management, and in marketing. Many of them also provide smaller, specialist companies with market access.

- **Cultural and geographic advantages:** Ireland is a member of the EU, and also enjoys close ties with the US, particularly through the extensive Irish diaspora. Ireland is also ideally positioned within the Eurozone, while still having an overlap of working hours with both the west coast of the US and Japan.

THE KEY CHALLENGES

The continued success of the Irish software sector depends on growing a cohort of highly successful companies, capable of establishing leading positions in niche market areas. To do this, we will have to build on existing competencies and strengths, and in particular on those indigenous companies who are already emerging as significant global players.

Ireland's strength in the software sector to date has been based largely on domain expertise and technical capability. Over the next few years, with the emergence of new business models, product management capability and marketing will become more critical. Success will depend on using a creative mix of direct channels, partnerships and Internet marketing, and on having the skills needed to fully develop these market channels and partners.

Growing companies of scale requires a range of skills that extends beyond the purely technical. As software development becomes increasingly commoditised and fragmented, success will depend on differentiation at the strategic level, which requires the development of high-level skills across the broad range of managerial and technical disciplines.

The New Software Economy

The opportunity for the Irish software industry to serve global markets remains significant. Market forecasts – despite the general downturn – are positive, particularly in certain of the new emerging markets. In addition, the market for software itself is changing – market research has identified a number of key trends and structural changes (below) that together create a very new environment for software companies. We refer to this as the **New Software Economy**. It is an environment in which Irish companies are uniquely well-placed to prosper.

1. CHANGING END-USER DEMANDS

The traditional business model in the software industry was based on a one-off licence fee followed, in most cases, by annual maintenance charges. Today, however, users are demanding less expensive, more efficient and more flexible ways of paying for software. Software companies are under increasing pressure to deliver measurable business value and prove return on investment. Software purchasing is moving from capital to current budgets.

Internationally, there is also a trend away from monolithic applications from a single supplier towards purchasing best-of-breed, plug-compatible solutions. This opening up of architectures (standards and technologies) provides an excellent strategic entry point for innovative, small businesses.

2. STRATEGIES OF THE MAJOR VENDORS

Influenced by the changing business and competitive environment, major vendors are gradually changing the way they do business by embracing emerging trends such as software-as-a-service (SaaS) and software-on-demand. New market entrants are introducing innovative ways of delivering and pricing software.

In addition, the major vendors are finding it increasingly hard to meet their revenue and profit targets in established, traditional markets. Their focus is shifting towards emerging geographical markets, such as Central Europe, Middle East, Asia Pacific and Latin America, and they are also seeking opportunities in emerging sectoral markets, such as the environmental and clean technology sector.

3. CHANGES TO THE SOFTWARE VALUE CHAIN

In the past, the software value chain was essentially linear, with the software company itself undertaking all the value-adding activities, including marketing, design, development, sales, deployment and support. This model is now changing to a networked value chain, and it is unlikely in the future that a software company

will undertake this full range of activities in-house. Instead, the different components of the value chain will each be carried out where they can be done most efficiently and cost-effectively. This distributed business model is necessarily more complex and demands greater managerial expertise.

4. NEW TECHNOLOGIES AND DELIVERY MODES

Certain technology trends, such as Service Oriented Architecture (SOA), Portal and Collaborative technologies and Open Source, are creating new software business models, while new technologies, such as Web 2.0 and Mash-Ups, are creating opportunities for new – and sometimes disruptive – applications.

New ways of packaging and delivering software, such as SaaS and pay-per-use applications, enable users to try software without significant up-front commitment and to pay for the applications in proportion to their use. This trend has significant implications for software companies, who will have to provide hosted/managed services, and operate a very different model of customer relationship management.

Companies that recognise these trends and build their businesses around them will drive the New Software Economy. These companies are expected to grow more than 20% faster than companies in the 'traditional' software market. The SaaS market in particular is expected to triple in value by 2012, when it will be worth \$17 billion. These trends thus have major implications for the Irish software industry. Irish software companies need to recognise these trends and integrate them into their business models, to realise the very significant market opportunities, and position themselves as world leaders in the industry.

The Future

The strengths that already characterise the Irish software industry place it in an ideal position to exploit the emerging trends and changes in the marketplace. In particular, the need for companies in the new software economy to operate a distributed business model and to build partnerships, alliances and deep customer relationships represents a real opportunity for Irish software companies.

However, companies will have to change if they are to be at the vanguard of the New Software Economy. While the new business models favour small, flexible companies, a certain scale is necessary if companies are to adequately address world markets and command a leading position in their market niches. Enterprise Ireland will work with its clients to help them grow sales, so that a significant number of companies will have sales in excess of €20 million by 2013, and an increased number with sales in excess of €50 million.

Companies will also need to consider how they can manage and diversify their offerings to achieve multiple revenue streams (for example, from services as well as products). This will involve 'whole product thinking' – understanding their customers' businesses and their problems and developing complete solutions to these problems. Delivering comprehensive solutions may require them to work in conjunction with partners.

By 2013, Enterprise Ireland's vision for the industry is that

Ireland will be internationally recognised as having a 'best connected' New Software Economy, successfully delivering innovative solutions on a global scale.

Enterprise Ireland is fully committed to making this a reality, and is taking a number of initiatives to ensure its success:

▪ **Best Connected**

In the New Software Economy, the development both of individual companies and of clusters depends on the establishment and management of a series of complex, national and international networks between different players in the software value chain. The Irish industry is already extremely well connected, at home and abroad. Enterprise Ireland will work with its clients to further develop effective networks that deliver real business benefits, so that the Irish software industry can truly claim the title of 'Best Connected', with strong strategic links to channel development and marketing partners, to technology and platform providers, to multinational companies, and to research performers.

▪ **Increased focus on clusters**

Enterprise Ireland will work with its client companies to further develop clusters around market segments where Ireland has proven strengths, such as telecommunications, finance and e-learning. We will also work to develop clusters in a number of other segments that offer significant growth potential, such as travel, aviation, security, environmental services, and the public sector (including healthcare).

▪ **Skills**

In addition to strong technical skills drawn from the educational and research institutions, companies in the New Software Economy need world-class managerial, marketing, sales and customer relationship management skills. Enterprise Ireland will continue to support the development and embedding of key business skills through best-in-class programmes such as Leadership for Growth.

▪ **Routes to market**

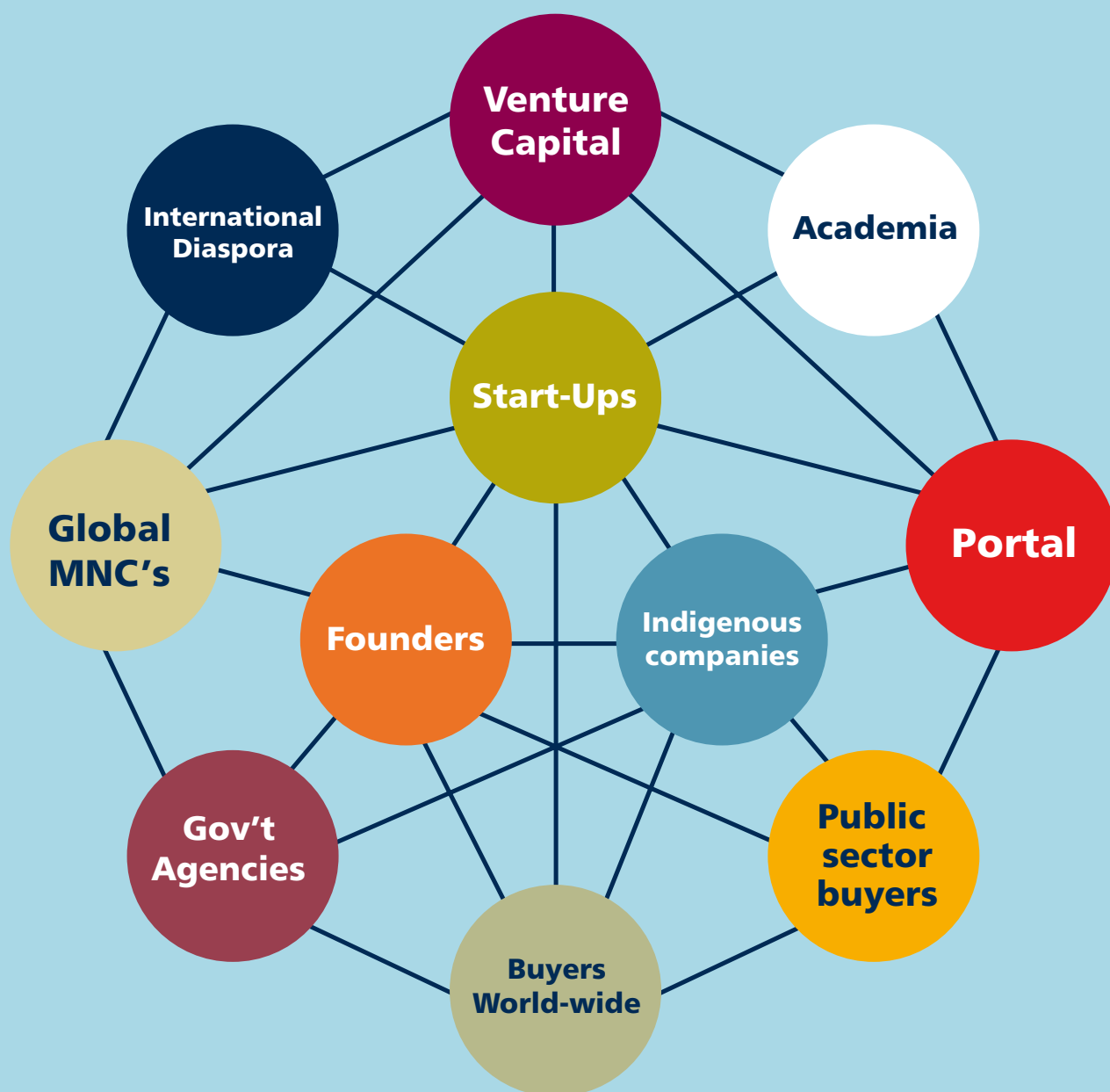
To operate effectively in the global market, Irish companies must develop comprehensive strategies for market penetration, and this will involve a combination of direct, indirect and electronic channels to market. Companies will need to identify suitable strategic partners, to negotiate effective partnership arrangements and to manage third-party relationships. Enterprise Ireland, through its network of overseas offices and contacts, will help client companies to find partners with the necessary skills, local knowledge and client base.

▪ **Funding**

The availability of appropriate funding is vital to the continued success of the software industry. Enterprise Ireland is currently working with the Irish banks, the European Investment Bank, venture capital companies and private/angel investors to ensure that companies continue to have access to appropriate sources of funds.

Enterprise Ireland has developed a programme of action to deliver on the vision in collaboration with industry, academia and Government. The programme includes short term actions for early impact as well as medium term initiatives to bring about sustainable change and growth in the sector.

The "Best Connected[®]" Software Ecosystem from Ireland.



www.enterprise-ireland.com

ENTERPRISE IRELAND OFFICE NETWORK

Email contact for Enterprise Ireland staff
firstname.surname@enterprise-ireland.com

Head Office

The Plaza, East Point Business Park, Dublin 3
Tel. (01) 727 000 Fax (01) 727 2020

INTERNATIONAL OFFICE NETWORK

EUROPE

London +(44 20) 7438 8700 +(44 20) 7438 8749 2nd Floor,
Shaftesbury House, 151 Shaftesbury Avenue, London WC2H
8AL, England

Düsseldorf +(49 211) 470 590 +(49 211) 470 5932
Rolandstr. 44, 40476 Düsseldorf, Germany

Milan +(39 02) 8800991 +(39 02) 8690243 Via S. Maria
Segreta 6, 20123 Milan, Italy

NORTH AMERICA

New York +(1 212) 371 3600 +(1 212) 371 6398 Ireland
House, 345 Park Avenue, 17th Floor, New York, NY 10154-
0037, USA

Silicon Valley +(1 650) 329 1414 +(1 650) 329 1818 100
Hamilton Avenue, Suite 130, Palo Alto, CA 94301, USA

ASIA / PACIFIC

Sydney +(61 2) 9273 8514 +(61 2) 926 49589 Level 26, 1
Market Street, Sydney, NSW 2000, Australia

Tokyo +(81 3) 3263 0611 +(81 3) 3263 0614 Ireland House,
2-10-7 Kojimachi, Chiyoda-ku, Tokyo, 102-0083, Japan

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