
Evaluations of State Supports for Enterprise

Synthesis Report and Conclusions

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Department of Jobs, Enterprise and Innovation

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Table of Contents

Section	Page	
1	Introduction	1
2	Evaluations framework	1
3	Economic context, 2003-2014	2
4	Policy context	5
5	Role of the Enterprise Development Agencies	7
6	State Aid Guidelines	10
7	Rationale for State intervention - towards a 'Systems' approach to Enterprise Policy	10
8	Enterprise supports	12
9	Overview of agency financial supports 2003-2013	13
10	Evaluation of agency supports - synthesis of findings	23
11	Lessons and recommendations for future evaluations	31
12	Learnings for future enterprise policy and optimum allocation of resources	37
	Appendices	41
	Appendix I. Employment in Enterprise Ireland firms and management development	
	Appendix II. Employment in IDA Ireland supported firms by region	
	Appendix III. Evaluations of Enterprise Supports - Approvals Data Summary	
	Appendix IV. Department of Finance Guidelines on Evaluation and Proportionality	
	Appendix V. Developmental Evaluation	
	Appendix VI. Developmental Evaluation - Hypothesis Testing Framework Template	

1. Introduction

The Strategic Policy Division of the Department of Jobs, Enterprise & Innovation (DJEI) has completed a comprehensive programme of evaluations of supports provided by the State Enterprise Agencies (Enterprise Ireland, IDA Ireland, Science Foundation Ireland and County Enterprise Boards¹) across three thematic areas:

- Supports for Start Up and Entrepreneurship (2012)
- Supports for Research, Development and Innovation (2012-2013)
- Supports for Business Development (2013-2014)

The evaluations took place over the period 2012 to 2014, informed by the Framework for the Evaluation of Enterprise Supports developed by Forfás in 2011² (the evaluations framework). A Steering Committee was established that includes senior level representatives from relevant divisions within DJEI³, the Department of Public Expenditure and Reform, the enterprise development agencies and an independent representative, Dr Helena Lenihan, University of Limerick.

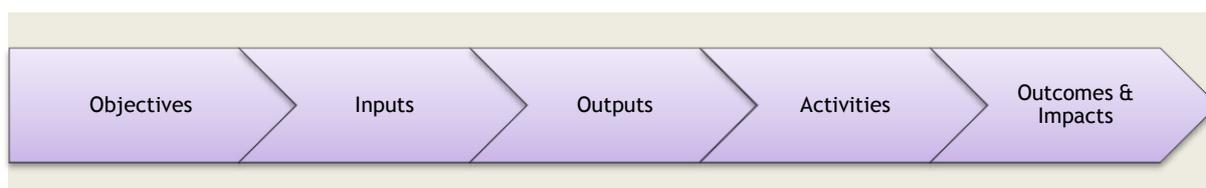
This report synthesises the overall findings from the evaluations with a view to drawing together the recommendations for future evaluations, learnings for future enterprise policy and considerations for optimum resource allocation.

It is important to note that the agencies have robust appraisal methods at the project and company level for determining economic return on investment that are subject to strict compliance and audit requirements and that the evaluations process does not extend to assessing the overall performance of the agencies themselves.

2. Evaluations framework

The evaluations assess programmes in terms of appropriateness, efficiency and effectiveness within a Programme Logic Model (PLM). The evaluations took place over the period 2012 to 2014⁴ and followed the evaluations framework which is based on international best practice in enterprise policy evaluation. It enables a systematic approach to structuring evaluations across agency programmes with regard to objectives, inputs, outputs, outcomes and impacts.

Figure 2.1 Evaluation framework programme logic model



The evaluations are focused on both quantitative and qualitative findings. Quantitative findings are mainly expressed in terms of additional jobs or exports that can be directly attributed to participation in

¹ Since the evaluations, the County Enterprise Boards have been dissolved. The Local Enterprise Offices (LEOs) offer services throughout Ireland as the first stop shop for enterprise

² Forfás was integrated into the Department of Jobs, Enterprise and Innovation in August 2014 as the Strategic Policy Division and continues to lead on evaluation projects

³ Including the Innovation and Investment Division and the Competitiveness and Jobs Division

⁴ Within the individual programme evaluations, in cases where a review had already been undertaken by an agency in the previous 3 year period, Forfás undertook a review of a review in line with the Evaluations Framework

the programme. Cost-Benefit analysis is undertaken where data permits. Qualitative findings are equally important, as they can explain much of the how and why programmes help generate additionality. In particular, evidence of behavioural additionality is explored within the evaluations. Behavioural additionality is about assessing, and where possible, quantifying the behavioural impact of a programme on a firm, for example, in relation to capability building, leadership, increased collaboration, ambition, resilience, improved working environments etc.

3. Economic context 2003-2014

The evaluations cover approved expenditure over the period from 2003 to 2012. This spans a dramatic period for Ireland's economy, encompassing a time of high growth driven by the construction boom, high levels of personal credit and consumption, to the subsequent collapse in domestic demand and recession, which became exacerbated by the global downturn. It also covers a period of structural and disruptive change globally, where activities within and across sectors have evolved significantly due to factors such as technological advances, sectoral convergence, emerging markets, economic and political uncertainty, shifting demographic and consumer patterns with ongoing disruption in business models and global markets.

Employment and exports

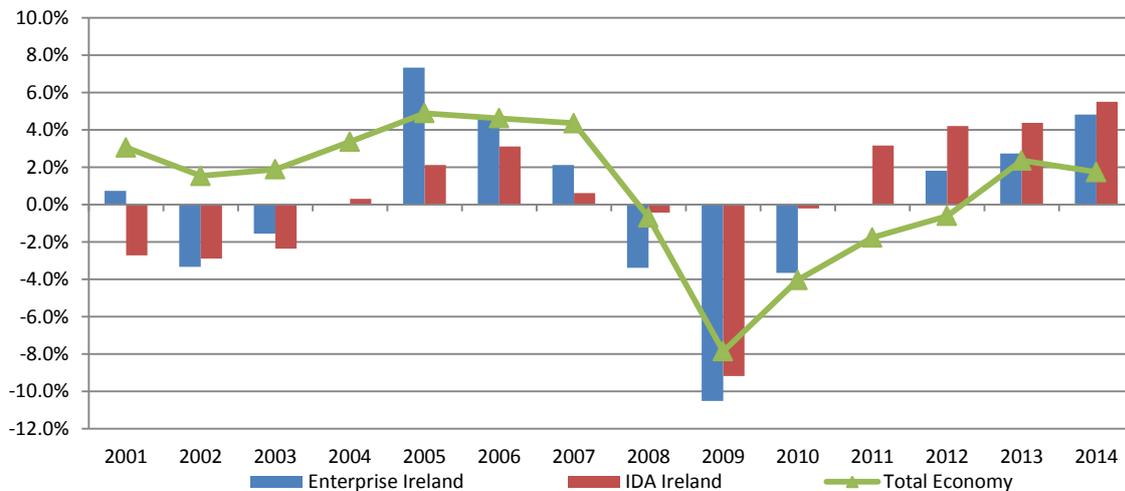
From the evaluations perspective, employment and exports are two key outcome indicators. The graph below sets out the change in annual employment in the economy as well as employment in IDA Ireland and Enterprise Ireland supported firms.⁵ Employment growth in the agency firms is behind the national average from 2001 to 2007, reflecting the very strong growth in the domestic sector, particularly in more labour intensive areas such as construction and retail over this period, in addition to the challenging international trading conditions in the early part of the decade⁶.

The employment impacts of the collapse in the domestic economy and the crisis in international markets are evident in 2008-2009. Notably, in a reverse of the trend from 2001-2007, employment growth in the exporting sectors has been higher than the wider economy since 2009.

⁵ Given the significant differences in the employment structures of the internationally traded sector and the economy as a whole (that includes domestically trading sectors) the trends are not directly comparable. Employment relates to permanent full-time employment

⁶ It should be noted that EI began to work with the contracting construction sector in 2008 to promote the internationalisation of the sector

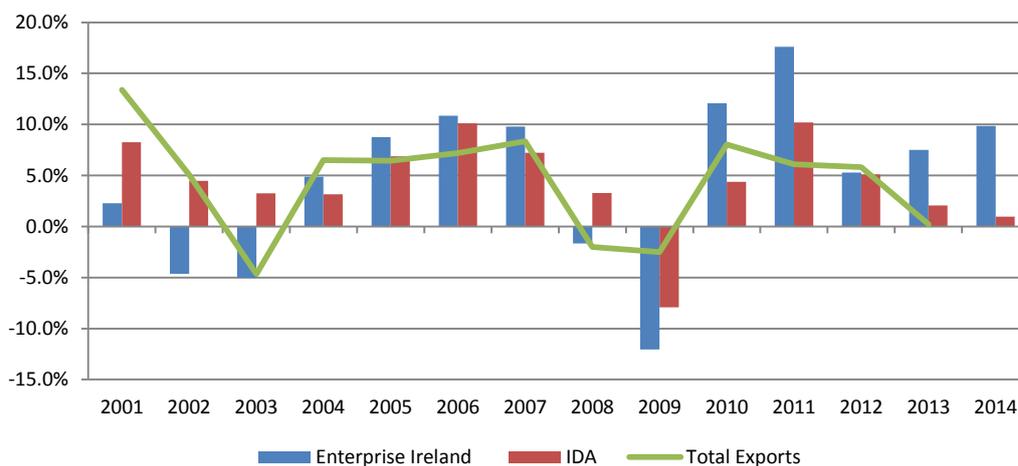
Figure 3.1 Annual employment growth - IDA Ireland, Enterprise Ireland firms and total economy 2001-2014



Source: CSO QNHS, Forfás Annual Employment Survey

It would appear that there is a lag between employment growth and growth in exports, which is expected as firms use up existing capacity before increasing employment. Enterprise Ireland and IDA Ireland companies exhibited strong recovery in exports in 2010 and 2011 (Figure 3.2) given the low base in 2009. This is now translating into strong employment growth. Enterprise Ireland and IDA Ireland companies have been growing both jobs and exports for the past three years. Enterprise Ireland supported companies have been growing exports at a faster rate than total economy exports⁷.

Figure 3.2 Percentage growth in exports - Enterprise Ireland, IDA Ireland firms and total economy 2001-2014



Source: CSO Balance of Payments, Forfás ABSEI

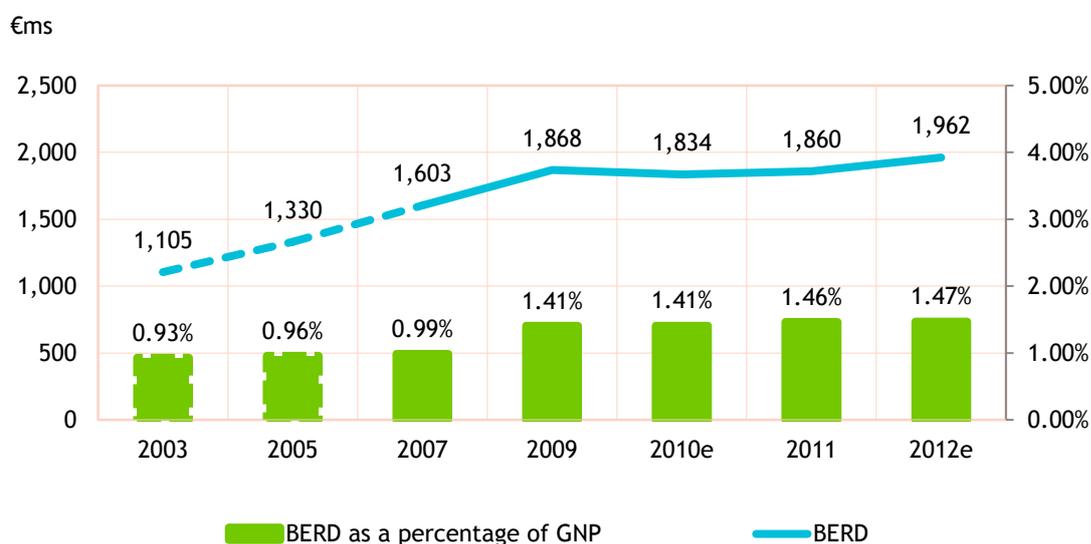
⁷ Total economy exports includes e.g. primary production, bulk commodities and other merchandise and services that are not generated by the enterprise agency supported cohort of companies

Indicative analysis by DJEI of Enterprise Ireland firms by level of turnover indicates that from 2010 to 2013 there has been a shift in the number and proportion of Enterprise Ireland client companies to higher levels of scale. Overall, the numbers of firms with turnover of €10 million and above are at historic highs over a 10 year period for which data is available.

Enterprise research, development and innovation

With regard to enterprise research, development and innovation (RD&I), having come from a low base, there has been significant transformation in the last decade. Business Expenditure on R&D (BERD) has increased from €1.10 billion in 2003 to over €1.86 billion in 2011. The number of firms active in R&D increased by a third from 1,200 in 2005 to just over 1,600 in 2011. The fact that the number of firms has increased while the level of expenditure has remained relatively constant points to an increase in the number of smaller firms engaged in RD&I. This is supported in the evaluations of early stage supports such as Innovation Vouchers.

Figure 3.3 Trend in business expenditure in R&D and as a percentage of GNP 2003-2012



Source: CSO databank, Forfás BERD 2003 and 2005 surveys

BERD has also increased as a percentage of GNP over that time frame and remained relatively constant over the recessionary period, largely mirroring trends in the EU⁸. BERD is 1.46 percent of GNP in 2011, having closed the gap when compared with OECD (1.58 percent of GDP) and exceeded the EU 28 average (1.24 percent of GDP). Indicators also show that Enterprise R&D intensity continued to increase. Within the Enterprise Agency cohort of client companies there has been significant progress made since 2001 in that, in 2011:

- BERD as a percentage of sales among agency clients increased from 1.3 percent in 2001 to 1.6 percent. In foreign owned manufacturing the increase was from 0.9 percent in 2001 to 1.6 percent in 2011, while among Irish-owned manufacturing the increase was from 1.1 percent of sales to 1.7 percent of sales.

⁸ EU-28 BERD increased from 1.2 percent to 1.24 percent of GDP from 2009 to 2011 (Eurostat)

- 57 percent of all agency firms were engaged in R&D in 2011 compared with 49 percent in 2001. Among manufacturing companies the percentage of firms with any expenditure on in-house R&D increased from 49 percent in 2001 to 61 percent in 2011.
- There is also evidence of increasing scale of R&D investment by more client companies, in that 23 percent of agency firms spent greater than €250,000 per annum in 2011 compared with 15 percent in 2001; and 32 percent of agency firms spent greater than €127,000 per annum in 2011 compared with 21 percent in 2001⁹.

Notwithstanding progress to date, there are still a number of challenges with regard to increasing RD&I capacity and capability in the enterprise base in Ireland including, strengthening the number of innovation performers in the multinational company sector, deepening the RD&I activity in the indigenous sector and building absorptive capacity, encouraging company collaboration and gaining greater economic impact by exploiting the research output produced from Irish investment in research.

Implications of economic context for evaluations

The fact that the evaluation period for many of the programmes spans the boom and bust cycle described above presents a number of challenges. For firms participating in the various programmes, the key objective is to assess the relative performance of those enterprises in the context of a highly volatile economic cycle. In particular, it is important to try to isolate the impacts of a programme and differentiate between what has arisen as a result of the programme and what has arisen as a result of external factors such as the recession, reduced access to credit, collapse in demand in international markets or consolidation in the multinational sector.

4. Policy context

During the period of the evaluation 2003-2012, national enterprise policy goals have remained broadly consistent although the emphasis may have changed, and include: the delivery of quality jobs and growth; promoting a dynamic exporting sector; and increasing competitiveness and productivity, particularly through innovation. A number of policy documents and strategies over the evaluation timeframe articulate the case for enterprise supports. These are summarised below¹⁰.

National economic policy objectives

Successive National Development Plans (NDPs) have set out the overall objectives for economic growth and investment. The importance of the exporting sector in driving economic growth is reflected in all NDPs and the challenge “to facilitate the conditions which allow for the development of indigenous enterprise” is acknowledged, recognising the importance of high-tech, high value-added business and the role of research, innovation and marketing. The NDPs also “aimed to ensure that Ireland has a business environment and infrastructure that is as favourable as any other location worldwide and hence capable of attracting the best quality FDI projects”¹¹. The need for a continued focus on the productive sector to underpin the overall competitiveness was emphasised.

Enterprise policy and strategy

In 2004, the Enterprise Strategy Group (ESG) prepared a strategy for growth and employment up to the year 2015 - *Ahead of the Curve, Ireland's Place in the Global Economy*. The ESG noted that enterprise in

⁹ The Strategy for Science, Technology and Innovation/Enterprise Ireland sets threshold targets for R&D expenditure by client companies of >€100,000 and >€1m

¹⁰ More detailed analysis of these and other reports is provided in each of the individual evaluations as appropriate. In addition, agency strategies and corporate plans provide further detail regarding how BDP objectives are articulated and operationalised

¹¹ Ibid

Ireland, while having highly developed capability in operations, lacked capability in two areas: international sales and marketing and the application of technology to develop high value products and services. The report placed an emphasis on developing expertise in export markets, product technology and service development, and in developing skills, education and training. Fostering entrepreneurship and innovation were highlighted as essential conditions for doing business. In 2010, Forfás published *Making it Happen*¹², which was developed in the early stages of the economic crisis. The report emphasised the imperative to return to an economic model of export driven growth, with a sustainable enterprise base underpinned by innovation, productivity and cost competitiveness. The report emphasised the need for Irish owned enterprises to internationalise, to grow to scale and to achieve growth through exports. One of the key relevant documents to the evaluations following on *Making it Happen* was the *Trading and Investing in a Smart Economy - A Strategy and Action Plan for Irish Trade Tourism and Investment*. This set out specific targets for job creation, exports, overseas visitors and FDI projects to 2015 aimed at positioning Ireland for strong export led growth to 2015, resulting in high levels of job creation and prosperity.

National research, development and innovation

There has been a significant transformation in Ireland's RD&I policy since the late 1990s. The Foresight exercise (1998) concluded that for Ireland to remain competitive and provide well paid employment, it needed a transformation of the RD&I performance of the enterprise base and an upgrading of the scientific and research skills of the public research system. At the same time, the EU Structural Funds provided co-financing opportunities for Member States to additionally target and accelerate the development of the R&D base. The Lisbon Agenda (2000-2010) placed investment in R&D at the heart of its strategy and set a target to increase R&D investment in the EU to 3 percent of GDP by 2010.

The Irish Government initially responded by committing over €630 million to a Technology Foresight fund for the seven year period of the NDP 2000-2006. Science Foundation Ireland (SFI) was established to fund the building of research excellence in biotechnology and ICT and the Higher Education Authority (HEA) Programme for Research in Third Level Institutions (PRTL) investments were strengthened. The overarching *Strategy for Science, Technology and Innovation (SSTI)* for the period 2006-2013¹³ set out a vision that Ireland would be internationally renowned for the excellence of its research, and would be to the forefront in generating and using new knowledge for economic and social progress, within an innovation driven culture. Specific actions aimed at achieving the target of growing BERD over the period to 2013, at strengthening commercialisation and at sustaining State investment in developing Ireland's RD&I infrastructures and capabilities. The Report of the Research Prioritisation Steering Group (2012) set out priority areas to inform Ireland's ongoing investments in building and strengthening capacity and capabilities in R&D.

Human capital and skills

Building capability within firms is a core objective of enterprise policy. The *National Skills Strategy* was published in 2007¹⁴ and the main findings in terms of developing the skills of those in-employment were:

- The trends in the changing profile of sectors will continue for the foreseeable future. By 2020, the services and high value added manufacturing sectors will have increased in relative importance;
- Employees in all jobs will be increasingly required to acquire a range of higher order and transferable skills; and

¹² http://www.forfas.ie/media/Forfas100924-Making_It_Happen-Growing_Enterprise_for_Ireland.pdf

¹³ The earlier report *Building Ireland's Knowledge Economy*, Interdepartmental Committee on Science and Technology, published by Forfás, 2004 set out targets for improved business innovation performance. The new SSTI is currently being developed and is planned for completion in mid-2015

¹⁴ <http://www.forfas.ie/publication/search.jsp?ft=/publications/2007/Title,684,en.php>

- State intervention was justified on the basis that employees and firms do not always optimally participate in education and training.

The *Report of the Management Development Council (MDC)* was published in 2010. The MDC cited 2005 research by McKinsey Consultants which found at the time that the level of general management skills in Irish businesses was relatively poor, particularly in specific functional skills such as human resources, marketing and finance, and in forward planning and strategic management¹⁵. Highly proficient leadership, with ambition, vision and strong management teams, is fundamental if a firm is to identify and anticipate changing market dynamics and to fully understand its customer base. The MDC recommended that a national system for management development be put in place in order to boost productivity, innovation and competitiveness amongst Irish SMEs.

5. Role of the enterprise development agencies

The programme of evaluations focused primarily on the supports provided by the enterprise development agencies IDA Ireland and Enterprise Ireland. They also included a selection of Science Foundation Ireland programmes for research that have a touch point with enterprise. In addition, supports provided by 35 County Enterprise Boards (CEBs) for start-ups were evaluated. The CEBs were dissolved in April 2014 with the functions, assets and liabilities transferring to Enterprise Ireland and Local Enterprise Offices (LEOs) established in each Local Authority area.

While the agencies have the overall goal of enterprise and employment growth, they each have some distinct features in terms of objectives for developing the enterprise base.

Enterprise Ireland is responsible for the development and growth of Irish enterprises in world markets and works in partnership with Irish enterprises to help them start, grow, innovate and win export sales on global markets. Enterprise Ireland uses a holistic, developmental approach across all aspects of client needs and across the company lifecycle, including strategy development, sales and marketing capabilities, innovation and R&D activity, technology development, continuous competitiveness and lean improvements, leadership and management development and access to finance. The supports provided by Enterprise Ireland, both financial and non-financial, are tailored to company needs in terms of sector and stage of development. Enterprise Ireland's remit also extends to stimulating RD&I collaboration between companies both foreign and Irish-owned and with research institutes, extracting optimum benefit from Ireland's research system through the active commercialisation of research, to promoting Seed, Venture and Growth Capital Funding appropriate to the stages of company development and growth, and attracting inward investment from multinational food and beverage companies to Ireland¹⁶.

IDA Ireland's objective is to encourage greenfield or expansion investment into Ireland by foreign owned companies, competing against other countries and Investment Promotion Agencies. The mobile investment generally involves (one or more) business functions and seldom involves a fully vertically integrated operation with end-to-end responsibility and activities across the supply chain. IDA Ireland's transformational change agenda aims to help foreign owned entities already based in Ireland to continuously reposition themselves to remain strategically important to the parent entity. The primary

¹⁵ Management Practices across Firms and Nations, McKinsey & Co, London and the Centre for Economic Performance, London School of Economics, June 2005

¹⁶ The agency has also been responsible for the administration of funds on behalf of third parties such as the Employment Subsidy Scheme or Beef and Sheep meat Investment Fund

financial interventions involve investment grant aid, supports for research, development and innovation, as well as training and environmental supports¹⁷.

CEBs (now LEOs) provide a first stop shop for small enterprises. Financial supports are provided to start-ups and existing businesses employing up to 10 people involved in manufacturing or internationally trading services. A range of supports are also available to those with greater than 10 employees including advice, training, mentoring and a referral or signposting service to other support providers.

Science Foundation Ireland (SFI) is the national foundation for investment in scientific and engineering research. It invests in academic researchers and research teams who are most likely to generate new knowledge, leading edge technologies and competitive enterprises in the fields of science, technology, engineering and maths (STEM). SFI has supported the establishment of a number of National Research Centres, aligned with the research priority areas set out in Ireland's research prioritisation exercise and smart specialisation strategy¹⁸. SFI also promotes an awareness and understanding of the value of STEM to society and to the growth of the economy. SFI plays a key role in advancing collaborative efforts among education, government, and enterprise.

6. State aid guidelines

The agency programmes operate within State aid guidelines which outline the parameters at European level for projects being supported. The agencies are also subject to national legislation that establishes aid limits. The guiding principle is that aid should only be given where there is an incentive effect, used only where there are identified market failures and/or to redress policy objectives such as regional disparities. EU policies¹⁹ combined with the modernisation of the State aid regime influence Ireland's own enterprise (and complementary SSTI) policy and the nature, extent and availability of specific interventions. In this context there is evidence of an increased emphasis on supporting RD&I when compared with a decade ago.

The primary State aid categories relevant to the evaluations of enterprise supports relate to start-up, SMEs, research development & innovation, training, employment and risk capital, most of which fall under the General Block Exemption Regulation (GBER). Schemes under the GBER are not expressly notified to the Commission²⁰.

Regional Aid Guidelines and De Minimis Aid are also relevant for the evaluations. Building on long established reporting, evaluation and audit requirements, the European Commission has recently established requirements for ex-post evaluation of State aid by Member States in line with its modernisation of State aid agenda.

Under these State aid rules, DJEI operates five State Aid Schemes which are administered by the enterprise development agencies: Regional Aid, Research Development and Innovation; Training Support; SME and Start-Up and the Environmental Aid Scheme. Within these Schemes, a number of different programmes and financial support offerings are developed and delivered by the enterprise development agencies.

¹⁷ More recently the IDA is working with Enterprise Ireland, to develop an initiative to stimulate the adoption of LEAN principles aimed at addressing the needs of a cohort of its client base and in response to Making it in Ireland, Manufacturing 2020, Forfás 2012

¹⁸ The Report of the Research Prioritisation Steering Group, DJEI, Forfás, 2011

¹⁹ Horizon 2020 sets out objectives and targets at an EU level and also for Member States

²⁰ Schemes eligible under the GBER are effectively aid (in the sense of State support) but are deemed by the Commission under prescriptive criteria to be 'good aid' or aid that will not distort the internal market

Table 6.1 Summary of State Aid Guidelines

Aid guideline	Brief overview
Regional Aid Guidelines (RAGs)	Capital/employment supports aimed at building capacity (employment) and redressing regional disparities. Grant intensities are determined by scale of company (globally) and by regional location. The evaluations span to two RAGs time-frames. Under the Guidelines pertaining during the evaluation periods grant intensities range from between 0 percent and 35 percent toward eligible expenditures ²¹
General Block Exemption Regulation (GBER)	Allows Member States to grant such aid without first notifying the Commission. The GBER includes areas such as SMEs (investment and employment aid, consultancy aid, aid for SME participation in trade fairs), aid in the form of risk capital and for promoting female entrepreneurship), research, innovation, regional development, training, employment
De Minimis Aid	Small amounts of aid provided to one company (up to no more than €200,000 in any 3 year period) not considered to be State aid
Research, Development and Innovation	Aid for research and development projects, research infrastructure, innovation clusters, innovation aid for SMEs, process and organisational innovation, research and development in the fishery and aquaculture sector. Subject to certain limits governed by the EU RD&I Guidelines. Grant intensities are determined by the nature of R&D being undertaken as well as scale of the global entity
Training	To improve the strategic capability and competitiveness of enterprises in Ireland through the training of employees and management. Intensities are determined by nature of the training whether specific (to the firm/employment) or general (transferable)
Environmental	Incentivise and accelerate investment in initiatives that will encourage undertakings to comply with new Union standards for environmental protection; to improve energy efficiency; to promote the uptake of energy from renewable sources and to encourage the carrying out of environmental studies. The aid intensity up to 40 percent of the eligible costs and may be increased by 10 percent for medium sized undertakings and 20 percent for small undertakings and by 5 percent for investments located in assisted areas as outlined in Ireland's Regional Aid Map 2014 - 2020

Source: DJEI State Aid Schemes²²

²¹ These are noted within the individual programme evaluations where appropriate
<http://www.forfas.ie/publications/2014/>

²² See <http://www.djei.ie/enterprise/stateaid/schemes.htm> for further detail

7. Rationale for State intervention - towards a ‘systems’ approach to enterprise policy

The State plays a key role in addressing market failures for enterprise development. In Ireland, as in other countries, the rationale for State support for firms has broadened considerably beyond the market failure concept to also include a wider view of the State as operating via a system of support.

Evolving thinking in industrial policy sees an enhanced role for the State as a co-ordinator, networker, promoter and informer, in addition to investment partner. Internationally, this has been termed as a “systems” approach to enterprise policy. Implied in the systems approach is that governments interact with firms in numerous ways and that an essential government role is to engage in dialogue with business to ensure most efficient allocation of resources for enterprise support²³.

The success of State support is not only measured in terms of monetary benefit but also in wider economic impacts (e.g. multiplier effects such as indirect or induced employment or clustering impacts) and behavioural change. For example, behavioural effects such as increasing firm capabilities, collaboration or incentivising strategic change are now clear aims of state intervention beyond ensuring purely financial return. This systems thinking adds considerable complexity for meaningful evaluations.

The rationale for government intervention to stimulate enterprise development is set out across a number of distinct areas below.

Relative costs

Government can assist in offsetting higher risks and addressing opportunity costs associated with start-ups, internationalisation, conducting RD&I projects and scaling globally. Due to the comparatively small domestic market, Irish enterprises need to internationalise at an earlier stage of their development than enterprises in many other countries. From an FDI perspective, supports such as capital and employment grants are designed chiefly to alter relative prices facing firms in addition to levelling the playing field with other countries. Regional aid guidelines enable the enterprise development agencies to support new investment and employment creation by offering greater incentives to locate and/or develop within relatively disadvantaged regions.

Incentive effects

Government intervention can play a key role in incentivising behavioural change that can have a transformative effect on industry structure, productivity and growth potential. The incentive effect is evident when the aid changes the behaviour of a company to engage in additional activity which it would not have engaged in without the aid or would only have engaged in such activity in a restricted or different manner or in another location. This could take the form of a multinational choosing to expand or upgrade activities or for a firm to engage in research, development and innovation.

Sharing the burden of risk

This is of particular significance for start-ups and firms investing in RD&I. The risks of these types of investment may be higher (for example, given survival rates of start-ups) or the rate of return may be much longer (for example, the economic returns to R&D are typically 7 years). Private investors may be unable to accurately assess the risk for these types of investment. However, the state can share the burden of risk as it pursues policy goals such as stimulating entrepreneurship, job creation and RD&I activity and multiplier or other secondary impacts such as spillovers.

²³ Warwick, K. I(2013) *Beyond Industrial Policy: Emerging Issues and New Trends*, OECD STI Policy Papers, No. 2 and Lenihan, H. (2011) ‘Enterprise policy evaluation: Is there a ‘new’ way of doing it?’ *Evaluation and Program Planning*, 34 (4), 323-332

Information asymmetry

This is a key market failure for both Irish and foreign owned firms though impacting in different ways. For Irish owned enterprises, barriers to internationalisation may undermine efforts or willingness to attain or maintain a presence in overseas markets. Typical barriers to entry in new markets include access to networks and contacts in overseas markets; navigating unfamiliar business environments, including differences in language and culture; and overcoming procedural barriers such as product standards and other aspects of the legal and regulatory framework²⁴. Most of these barriers are associated with lack of access to perfect and complete information and overcoming them could imply prohibitive costs and intensive use of companies' resources. Government intervention is needed insofar as it provides a more efficient way to tackle the costs associated with searching for new market opportunities.

From an FDI perspective, information failures may prevent the efficient allocation of investments across countries. International investors do not have perfect information about all countries or investment opportunities and face large costs with gathering the necessary information. State enterprise agencies play a primary role in addressing these information gaps.

Co-ordination failures

Co-ordination failures can arise where enterprises do not optimally transition to higher value added activities or diversify to new activities when, for example, certain technologies, industries or sectors become obsolete or move to other locations. In turn, this can lead to sub-optimal growth, underinvestment and underemployment. At the same time, new industries or activities can fail to develop optimally without support, for example, in the form of infrastructure, skills and research.

The State has a role in addressing co-ordination failures by providing enterprises or cohorts of enterprises with space and support to collaborate, change strategic direction, to target new markets, to develop new products, to discover, experiment and take and share risks. This approach ensures that the market prioritises the agenda, but governments would also perform a strategic and coordinating role in facilitating this. From an enterprise policy perspective, the State can address these co-ordination failures through, for example, trade missions, location promotion, identification of future skills needs, networks or supports for sectoral ecosystem and cluster development. Often co-ordination failures have little or no direct financial support involved, it is more about providing that point of co-ordination between relevant actors²⁵.

Capability failures

Investment by firms in education, training and management development is positively correlated with higher levels of productivity and innovation. More highly skilled workers are more likely to adapt to change and to be a direct source of innovation and more productive firms are more likely to use advanced technology²⁶. Similarly, investment in management development has shown close correlations between labour productivity, sales growth and return on capital employed²⁷. However, enterprises and individuals do not always invest optimally in education, training and management development for a number of reasons such as lack of awareness of the benefits, lack of access to, or relevance of, training available, prohibitive financial costs and lack of time.

These factors are particularly acute for SMEs. In addition, the more longer term returns to investment in education and training can act as a deterrent coupled with the fact that not all the benefits may accrue to the firm (for example, through staff turnover) although there are strong societal benefits from such

²⁴ Internationalisation of Innovative and High Growth SMEs, BIS Economics Paper No. 5.2010

²⁵ For further information see Rodrik, D. (2004) Industrial Policy for the Twenty-First Century

²⁶ Tomorrow's Skills: Towards and National Skills Strategy, EGFSN, 2007

²⁷ Management Development in Ireland, Management Development Council, 2010

investments in training and similarly in research and innovation. The State has a clear interest in addressing these barriers as the benefits from education and training accrue more widely than individual or firm level to the economy and society.

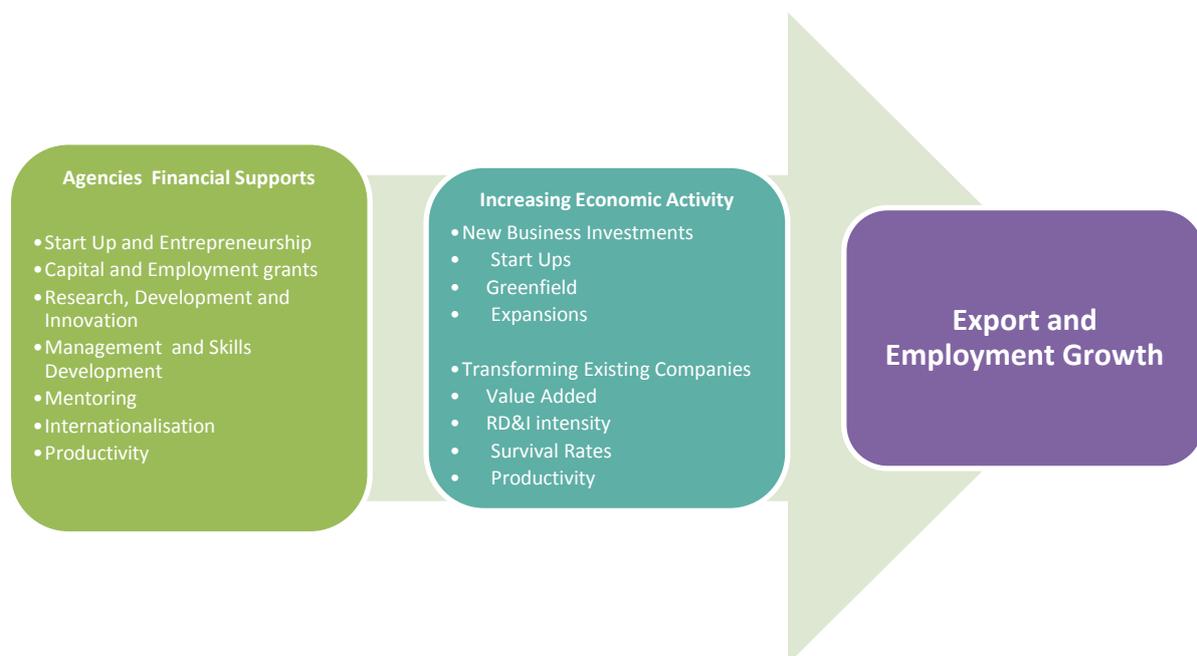
8. Enterprise supports

Broadly, the objective is that enterprise supports will stimulate additional economic activity in the form of new business investments, including expansions, start-ups and FDI (capacity building) and through the transformation of existing companies (capability building) to accelerate growth in exports and job creation. As pointed to earlier, it is important to highlight that State financial support forms a proportion (often small) of the total investment made by the company and plays a critical role in leveraging and incentivising investment by an enterprise (Figure 8.1).

One of the main features of agency strategy in supporting company development is that they take a holistic approach informed by company needs. In terms of direct financial supports, this is in the context of support for a business plan, which can combine a number of different supports for a company. It should be noted that there is no set linear pathway to how support is offered as each company has individual requirements. A systems evaluation of Enterprise Ireland supports undertaken by DJEI indicated that there is no single system or combination of supports delivering greatest impact rather that it is appropriate that Enterprise Ireland continues to deal with companies on a case-by-case basis and provide a range of supports tailored to companies at different stages of scale and development.

Due to the scale of multinationals, IDA Ireland is more limited in scope under State aid rules and is particularly limited by Regional Aid Guidelines. Nonetheless, IDA Ireland in certain cases combines the different supports to attract and enhance overall investment activity by the company.

Figure 8.1 Role of supports for enterprise development



DJEI, Strategic Policy Division - Financial Supports Evaluated

It is also important to reiterate that the agency approaches involve building strong customer relationships over a period of time, encompassing advisory supports, brokered introductions, facilitated networking and peer-to-peer learning, advocacy, trade missions etc., (sometimes referred to as ‘soft’ or non-financial supports).

The remainder of this report sets out:

- A high level overview of total financial support approvals by the agencies over the period 2003-2013 and analysis of the employment performance of agency cohort of assisted companies;
- A synopsis of the findings of the suite of evaluations undertaken by DJEI under three broad thematic areas, setting out key findings; and
- Lessons and recommendations for future evaluations and learnings for future enterprise policy and considerations regarding optimum resource allocation.

9. Overview of agency financial supports 2003-2013

The main findings of the evaluations are set out in section 10 below. In summary, it was found that in the main, the supports delivered additionality when compared with a counterfactual and value for money after accounting for deadweight, displacement, selection bias etc. Because of the differing evaluation time periods it is not possible to merely combine the inputs, outputs and outcomes to provide an aggregate picture of return on investment. Even if this were possible, such analysis would underestimate the complexity and value of an enterprise policy “systems” approach and of the very different roles that each intervention plays within this system.

This section aims to provide a helicopter view to inform what types of support are used in what circumstances and to get additional context on employment trends of the agency clients. This overarching perspective is simply a correlative measure of the relationship between financial supports and employment and is a much less sophisticated analysis than the individual evaluations in that it does not account for a range of factors that could influence results (e.g. appropriately matched control group). Nevertheless, it provides some interesting insights and should be considered in conjunction with the individual programme evaluations to provide a good evidence base to inform decision making, policy emphasis and clarity of objectives. This type of analysis has been highlighted as a useful supplementary approach where multiple supports are working towards the same high level objectives (in this case jobs and growth)²⁸.

The analysis that follows is undertaken on financial approvals by the agencies (as distinct from actual expenditures) given the assumption within the evaluations that the approval incentivises and initiates the behavioural change. The analysis looks first at Enterprise Ireland and then at IDA Ireland client portfolios.

Enterprise Ireland financial approvals 2003-2013

This section is only focused on certain direct financial approvals provided by the agencies to client companies. It does not reflect wider agency activities, for example, of Enterprise Ireland in stimulating and co-ordinating research collaboration, commercialisation of research, seed and venture capital funding, administering funds on behalf of other stakeholders or trade promotion. Returns on equity funding provided by Enterprise Ireland are not captured.

²⁸ See section on synthesis and meta-evaluation in HM Treasury (April 2011) the Magenta Book: Guidance for Evaluation

Over the period 2003-2013 Enterprise Ireland approved €1.14 billion to 4,552 companies²⁹. This equates to average annual approvals of €103.4m and an estimated annual average expenditure of €72.8m (based on a circa 70 percent drawdown rate as of Q1 2015).

For the period as whole, RD&I approvals account for 37 percent of the total value, with expansion supports accounting for 24 percent of total approvals and start-up supports 23 percent. Management and skills development accounted for 12 percent. Internationalisation supports are relatively low in value terms, accounting for just 5 percent of the total approvals over the period 2003-2013. With regard to concentration of support, 2,290 individual companies received management and skills development supports, followed by 2,237 companies in receipt of RD&I supports. A relatively smaller number of companies (1,219) received expansion supports, although this accounted for 24 percent of the total value of supports - reflecting the high level of capital and employment investment related to expansion.

Table 9.1 Summary of Enterprise Ireland approvals by theme 2003-2013

	Sum of Amount Approved €	% of total	No. of companies*	Average € per company
Management and skills development	132,250,135	12%	2,290	57,751
Expansion	273,507,370	24%	1,219	224,370
Internationalisation	53,243,701	5%	1,551	34,329
RD&I	420,274,611	37%	2,237	187,874
Start Up	258,330,800	23%	1,547	166,988
Grand Total	1,137,606,615	100%		

Source: Enterprise Ireland *Number of companies does not equal to column total as many companies receive more than 1 type of support across themes and across years

Enterprise Ireland supports vary significantly over the period and across the different thematic areas. As such it is difficult to discern any trends in terms of themes, however, there are three broad periods evident:

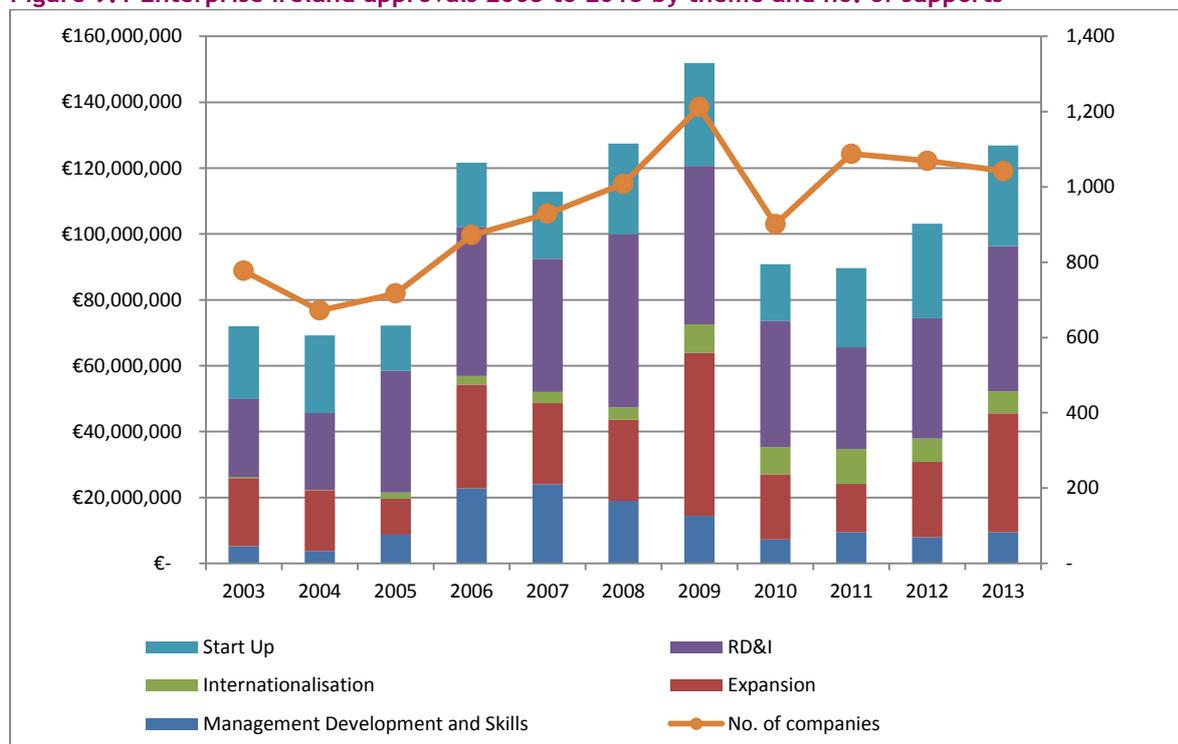
- Between 2003 and 2005, approvals ranged from €69.2m to €72.2m per year and the number of companies with approvals ranged from 672 to 777 per year;
- There was then a significant jump in approvals and number of companies supported. From 2006-2009, total support approvals ranged from €112.8m to €151.9m. At the same time, the number of companies in receipt of approvals increased to 872 companies in 2006 with a peak of 1,212 companies in 2009. The Enterprise Stabilisation Fund was established in 2009 by DJEI and administered by Enterprise Ireland to help vulnerable but viable companies to internationalise. The increase in expansion support is reflected by this; and
- The value of approvals fell back significantly to €90m in 2010-2011, mainly as a result of changes to public spending policy as opposed to change in enterprise policy of Enterprise Ireland's approach. Since 2011, total approvals have recovered significantly to €127m, driven primarily by increases in RD&I and expansion approvals, while the number of supported companies has largely held flat, indicating increasing scale in investment by companies as recovery has emerged.

²⁹ The data in this section is from the EI financial supports database. A number of supports are excluded from the analysis such as one of supports or where EI was the designated conduit for a specific fund, for example, a specific sectoral support or the DJEI Employment Subsidy Scheme

Figure 9.1 shows Enterprise Ireland approvals over the period from 2003 to 2013, by broad thematic area and number of supports. The analysis shows:

- Expansion approvals, which can include employment and/or capital costs, involve the highest average approval of €224,370 per company;
- Internationalisation approvals averaged €34,329 per company and there has been an increased emphasis on this type of support since the recession. From 2003 to 2008, internationalisation supports averaged just 2 percent of total approvals per annum, whereas from 2009 to 2013, they accounted for 8 percent of total approvals on average per annum;
- Management development and skills capability approvals averaged €57,571 per company, and the initiation of the Leadership for Growth (L4G) is reflected in the increased expenditure over the period 2006-2009. Approvals have fallen significantly since 2006 to 2008, which according to Enterprise Ireland can be largely explained by the cyclical nature of long term management development programmes; and
- Enterprise Ireland initiated a ‘cascading’ management development programme (through for example, its CFO programme) that serves to strengthen the overall team and to embed the learnings from L4G. This strategy makes sense, given the positive impact evident in the L4G programme in terms of stimulating ambition. Enterprise Ireland is currently tendering for the majority of its long term management development programmes which should see a renewed increase in management development and skills capability approvals in proportion to total funding.

Figure 9.1 Enterprise Ireland approvals 2003 to 2013 by theme and no. of supports



Source: Enterprise Ireland

Financial Support and Company Level of Employment

In any given year, Enterprise Ireland holds a portfolio of circa 5,500 companies in its database - and in any given year a proportion of this portfolio of companies (typically between 1,000 to 1,200) is active in terms of 'live' projects and financial approvals. There were employment records for a population of 9,859 individual companies in the Annual Employment Survey (AES) in total over the period 2003 to 2014. Within this population:

- 4,552 companies received at least 1 approval between 2003 and 2013 as recorded in the Enterprise Ireland financial support database. Companies in receipt of support accounted for 52 percent of total employment in 2003 and 72 percent in 2014; and
- 5,307 companies had employment records from 2003 to 2014 but did not receive an approval per the Enterprise Ireland database in the period 2003-2013. Non supported companies accounted for 48 percent of total employment in 2003 and 28 percent in 2014.

Table 9.2 provides analysis for those companies that received *at least one financial support* over the period 2003-2014 and for which AES data was available. The table is also categorised according to average company level of employment from 2003-2014. Any individual project can take a number of years to complete and some projects are still underway.

Table 9.2 Enterprise Ireland approvals and drawdown by average employment level 2003-2013

	No. of firms (2003-2014)	% of total	Total approvals €	% of total
Less than 10	2438	54%	276,887,423	24%
10 to 19	816	18%	175,849,907	15%
20 to 49	768	17%	286,146,862	25%
50 to 249	482	11%	314,023,221	28%
250 to 499	32	1%	53,264,637	5%
500+	16	0%	31,434,565	3%
Grand Total	4,552	100%	1,137,606,615	100%

Source: Enterprise Ireland, DJEI Annual Employment Survey

- 54 percent of enterprises in the portfolio had average employment of less than 10 people over the period 2003-2014 and they account for 24 percent of total value.
- In value terms, 28 percent was approved to companies with average employment over the period between 50-249 and 25 percent of approvals were made to those with average employment of 20-49. Together, these companies account for 53 percent of total value of approvals and 28 percent of total number of firms. This is a measure of relatively more intensive supports required for growing/scaling companies at these levels relative to smaller companies.
- The larger scale enterprises (500+) account for less than one percent of the population and 3 percent of the value of approvals.

Looking at the distribution of supports by value according to theme and company size, it is natural that a high proportion of total approvals to companies averaging less than 10 and 10-19 relate to start-up approvals. As companies' size increases, expansion and RD&I account for much higher proportions of support totals. Management and skills development and internationalisation supports account for

relatively low proportions of the total across all size categories. As would be expected, internationalisation supports feature relatively prominently among the 10 to 19 and 20 to 49 cohorts.

Figure 9.2 Distribution of Enterprise Ireland approvals by theme and firm size (€ millions)



Source: Enterprise Ireland; DJEI Annual Employment Survey

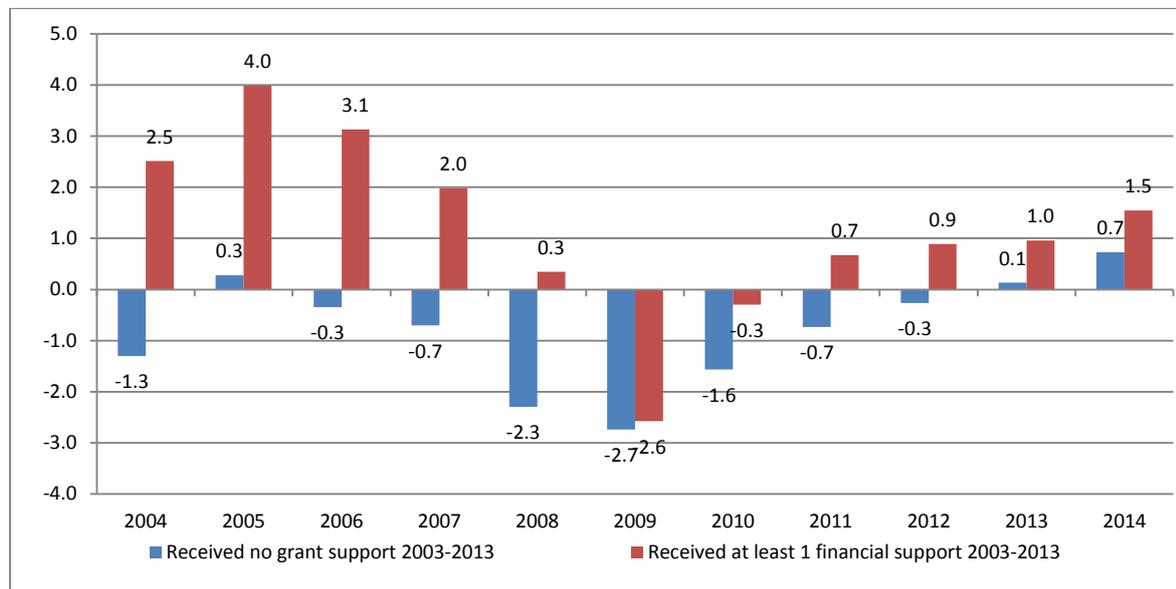
Employment performance of firms in receipt of financial support 2003-2013

As discussed, this section provides a helicopter view of financial support to provide additional context on employment trends of agency clients, but does not account for selection bias. It does, however, provide a top level view of how companies that are in receipt of financial support from Enterprise Ireland are doing relative to companies that are not with regard to employment. It is important to note that both groups are not homogenous in terms of their characteristics and as such direct comparisons should be treated with caution. Overall, employment in the cohort of Enterprise Ireland companies that received support increased by 35,150 from 76,600 in 2003 to 111,750 in 2014. On the other hand, employment in non-supported firms decreased by 27,900 from 71,700 in 2003 to 43,800.

Controlling for the churn of firms within both populations over the time period, the graph below shows what the average increase or decrease was per firm in terms of employment, depending on whether or not an approval was received in the period 2003-2013. The results show that there is a constant positive differential in terms of employment growth between supported and non-supported firms. In terms of average employment declines in the recession, there was little difference in the average employment loss per firm in 2009, however, there was a significant difference with regard to the recovery of firms with employment declines effectively halted in 2010 in supported firms and continuing declines in firms not in receipt of financial support out to 2012. Employment growth returned for supported firms in 2011 and has continued to 2014. Further analysis of companies that participated in at least one of Enterprise

Ireland’s long-term management development programmes exhibit relatively stronger employment growth on average relative to companies which did not (see Appendix I).

Figure 9.3 Employment growth per firm by year and support 2004-2014



Source: Enterprise Ireland; DJEI Annual Employment Survey

Broadly, there are signs of continuing improvement in the resilience of Enterprise Ireland companies. For example, gross job losses taken as a percentage of the previous year employment base has decreased from a peak of 16.9 percent in 2009 to 6.5 percent in 2014. Even in 2006-2007, when employment growth was strong, the level of gross job losses was at 8 to 9 percent, indicating that Enterprise Ireland companies on the whole are now sustaining more employment than in previous years.

Scaling

Analysis of Enterprise Ireland’s client base indicates that in the period 2010-2013 there were an estimated 870 companies with turnover greater than €5m³⁰. These companies represent approximately 80 percent of total turnover of Enterprise Ireland companies and are vital to driving overall growth in the portfolio. The main findings of the analysis indicates that from 2010 to 2013 there has been a shift in the number and proportion of Enterprise Ireland client companies to higher levels of scale. There has been a significant relative increase in the number of firms at turnover levels of €10m to €20m, by 35 percent. In addition, the number of firms at the €20m-€50m turnover band has increased by 22 percent. Overall, the numbers of firms at the bands of €10m-€20m, €20m-€50m and greater than €50m are at historic highs over a 10 year period. The analysis indicates that there first seems to be some particular challenges in bringing companies to the initial point at which they have good scaling potential at around €5m (or €10m for Food companies).

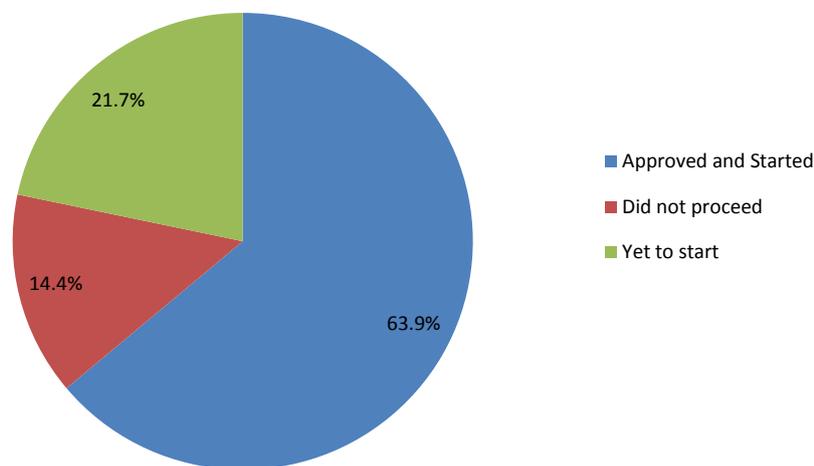
Enterprise Ireland has identified particular challenges in relation to building scale. These are multifaceted and impact to different degrees depending on the company in areas such as leadership capabilities, company ambition, organisational model, business model, strategic focus, relevant markets, acquisitions strategy and company structure. On this basis, scaling interventions may require a variety of different supports at appropriate stages of development.

³⁰ Annual Business Survey of Economic Impact - Weighed Data

IDA Ireland financial approvals 2003-2013

This section provides a similar overview of IDA Ireland financial supports. One key point to note upfront is that there is a significant difference in drawdown rates for IDA Ireland grants compared to Enterprise Ireland supports. From 2003 to 2013 the total amount approved over the period was €1.75 billion and total amount drawn-down was €750m (43 percent). This is as a result of projects that have been approved but may not have proceeded thereafter as well as projects that have yet to start or yet to be completed. The approvals associated with projects that do not proceed are primarily due to circumstances where, for example, a grant offering may have been part of the investment negotiations but the parent company decided not to proceed, the project was replaced at a later date by another project or the project was delayed or cancelled. With regard to project status, 64 percent of projects were approved and started, 22 percent of projects were yet to start, and 14 percent of projects did not proceed.

Figure 9.4 IDA Ireland grant approvals by project status 2003-2013



Source: IDA Ireland

IDA Ireland grants can be broadly categorised in terms of expansion grants (Capital and Employment Grants), Research and Development and Training. A small number of Project Feasibility grants were also awarded.

Over the period 2003-2013 IDA Ireland approved €1.75 billion in 1,240 grant approvals to 614 companies. This equates to annual average approvals of €158m. For the period as a whole RD&I account for 49 percent of the total value, with capital and employment combined making up 45.3 percent and the remainder being training and feasibility grants. The number of grants per annum increased from 77 in 2003 to 144 in 2013, which would indicate a higher number of smaller grant amounts in more recent years. This would likely reflect changing FDI trends where companies are becoming more mobile at earlier stages of development and IDA Ireland strategy to attract investment from such companies as they start to expand from home markets.

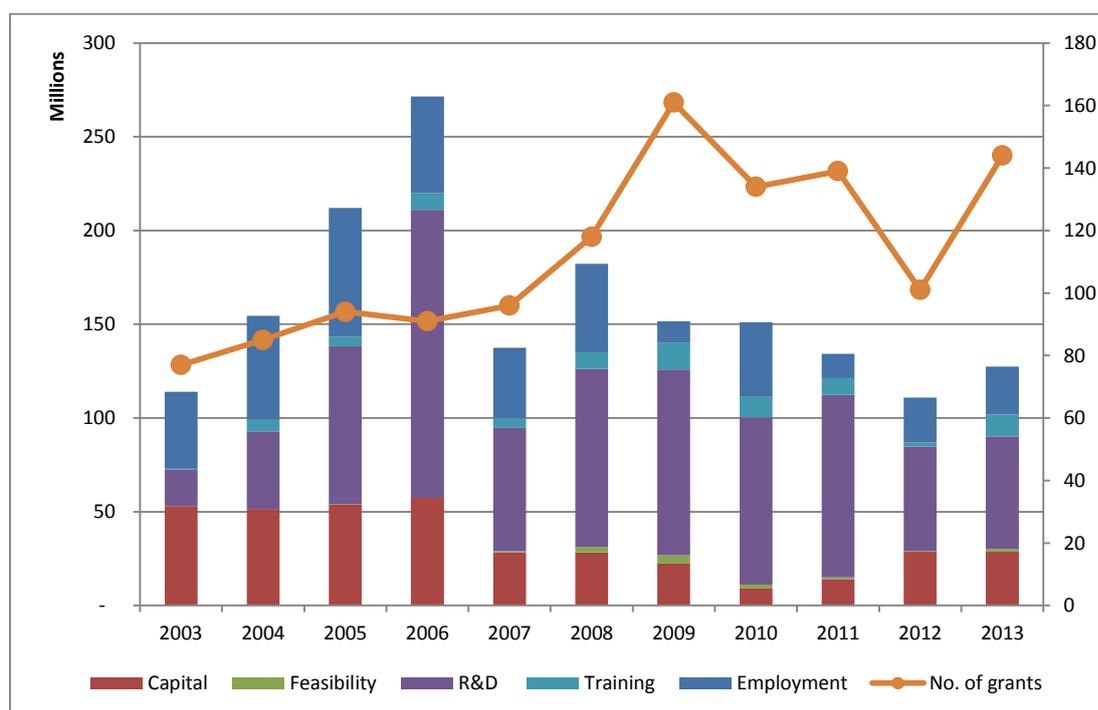
Table 9.3 Summary of IDA Ireland grant approvals by theme

	Total grant approved 2003-2013 €	% of total	Total no. of grants 2003-2013	% of total	Average Grant Approval €
Capital	€ 375,477,524	22%	93	8%	4,037,393
Employment	€ 415,343,107	24%	378	30%	1,098,791
Feasibility	€ 13,075,404	1%	100	8%	130,754
R&D	€ 860,972,717	49%	465	38%	1,851,554
Training	€ 81,834,514	5%	204	16%	401,150
Grand Total	€ 1,746,703,266	100%	1240	100%	1,408,632

IDA Ireland Grants Data

The number of grant approvals has mostly followed an upward trend, although the total amount approved peaked in 2006 at €271m and has fallen back to €127m in 2013. The 2006 peak is largely due to a small number of very large projects particular to that year. In terms of type of grant, the trend is towards more R&D grants and fewer capital and employment grants, reflecting a more restrictive regional aid regime on the one hand and increased emphasis on RD&I activities in FDI strategy. In 2013 R&D made up 43 percent of the number of grants approved and 47 percent of the amount approved.

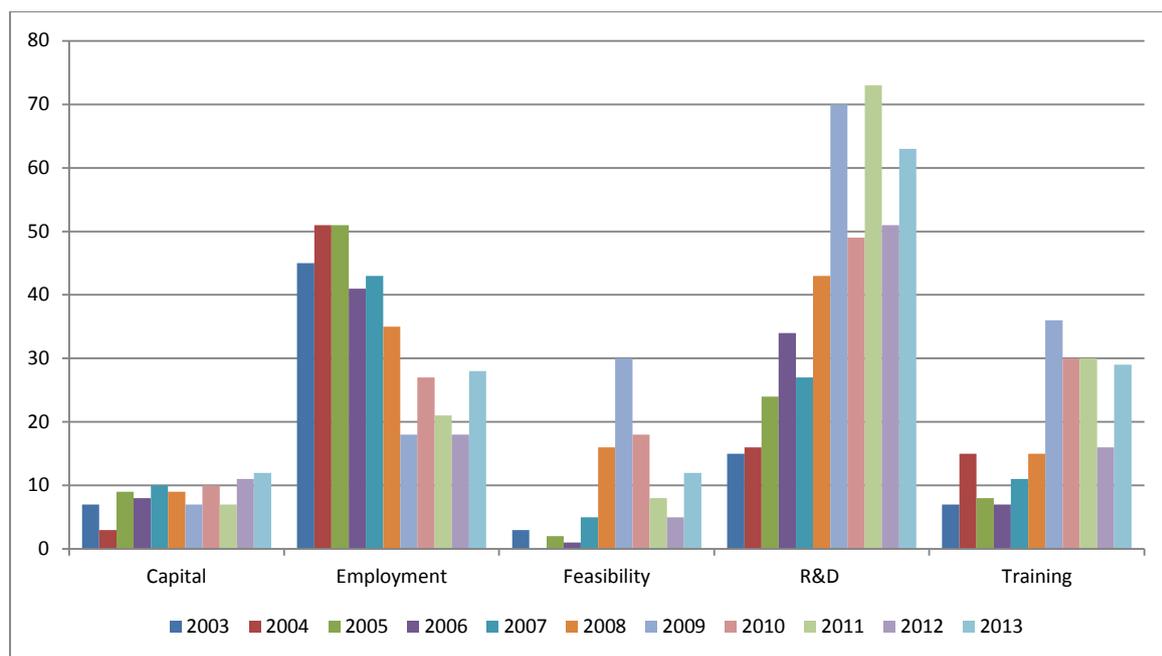
Figure 9.5 IDA Ireland grants by theme and number of grants 2003-2013



IDA Ireland Grants Data

In terms of numbers of grants, as well as R&D, there is also a greater frequency in training grants from 2008 onwards, reflecting the increasing policy focus on the transformational change agenda. In addition, the decline in employment grants reflects the increasingly restrictive Regional Aid Guidelines from 2007 onwards.

Figure 9.6 Number of IDA Ireland grants by year 2003-2013



IDA Ireland Grants Data

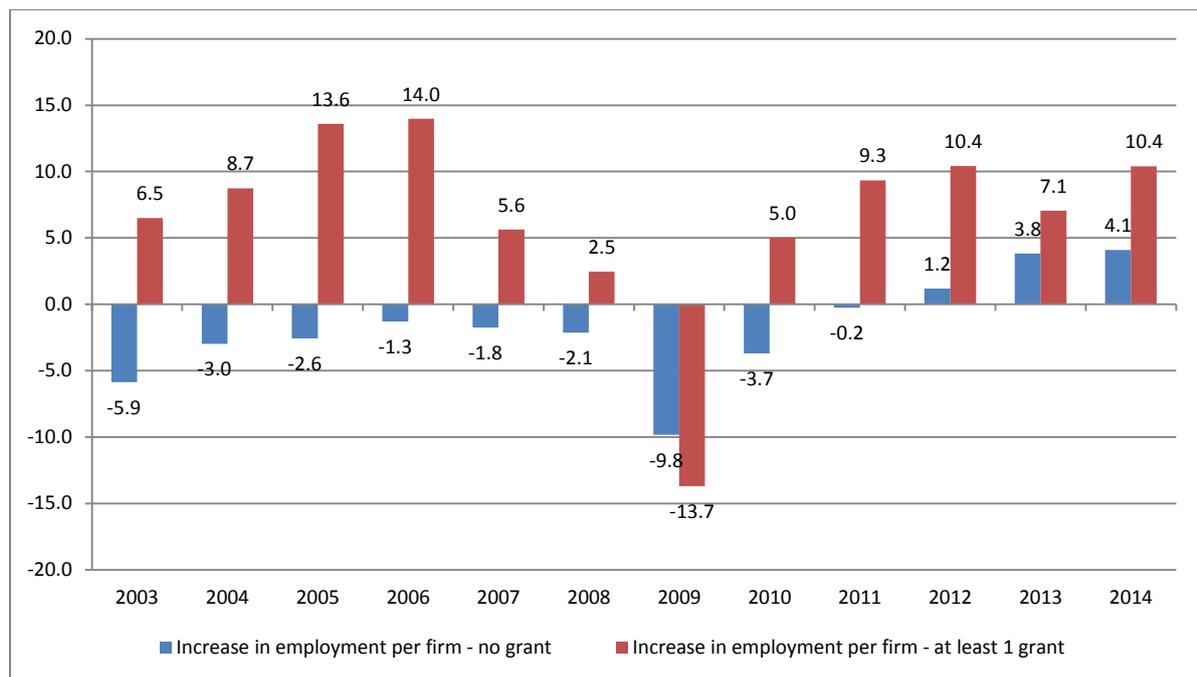
Employment performance of IDA firms in receipt of financial support

Overall, employment increased in the cohort of IDA Ireland supported firms by 30,700 from 80,300 in 2003 to 111,000 in 2014, while employment in firms not in receipt of financial support decreased by approximately 12,000 to 45,600 in 2014. Annual employment growth per firm was higher in supported companies when compared with those that did not receive grant support over the period 2003-2013. It is also evident that supported firms showed greater resilience and, on average, bounced back from the recession earlier.

Again, it is important to highlight here that selection bias is not taken into account, nor is the fact that although some companies may not receive direct financial supports under State aid rules, they have access to the range of advisory supports and networks IDA Ireland, which are also highly important for firms. Therefore, there will be significant differences by company.

Further analysis by region is provided in Appendix II, which shows that in broad terms, the supported firms on average increase employment year to year, with the exception of 2009 where employment per firm declined across all regions. Average employment performance per firm is higher across all regions and all years relative to companies not in receipt of grant support over the same period.

Figure 9.7 Average increase/decrease in employment per firm 2003-2013



Source: IDA Ireland Grants Data, DJEI Annual Employment Survey

As with Enterprise Ireland firms, there are signs of continuing improvement in the resilience of IDA Ireland companies post the recession. Gross job losses taken as a percentage of the previous year employment base has decreased from a peak of 14.9 percent in 2009 to 6.5 percent in 2014. Even in 2006-2008, the level was at 8.8 to 10.1 percent, indicating that IDA Ireland companies on the whole are also now sustaining more employment than in previous years

Summary

In conclusion, the high level analysis indicates:

- strong correlations between supports and agency client employment performance;
- significant benefits for Enterprise Ireland client companies associated with management development interventions;
- evidence of increased scaling activity in recent years in the Enterprise Ireland portfolio; and
- overall, the agency firms have increased signs of resilience with regard to sustaining employment.

As mentioned previously, the analysis only provides a correlation of support with performance. The individual programme evaluations provide best practice evaluative techniques in terms of control groups of companies with similar characteristics, selection bias, deadweight, CBA and so on. In this context, the analysis presented here is supporting evidence to the evaluations rather than the primary perspective for analysis. A synopsis of the findings of the programme evaluations is presented in the next section.

10. Evaluations of agency supports - synthesis of findings

This section focuses specifically on the evaluations of the individual programmes that were undertaken by DJEI over the past three years. A total of 50 programmes were evaluated involving direct approvals of €2.5 billion³¹. The time period spanned 2003-2013, although the time period for each individual programme was particular to that programme and differed depending on factors such as the time when the evaluation was initiated, the programme age or data availability.

The programme evaluations were undertaken on a thematic basis as follows:

- Entrepreneurship and Start-ups;
- Research, Development and Innovation; and
- Business Development, encompassing:
 - Capacity Building (employment and capital support);
 - Management and Skills Development;
 - Internationalisation; and
 - Productivity.

The evaluations relate to supports provided by IDA Ireland, Enterprise Ireland and the County Enterprise Boards (now Local Enterprise Offices), in addition to a selection of programmes provided by Science Foundation Ireland (SFI) which have a touch point with enterprise. In order to provide some indications as to scale and/or emphasis on resource allocation, on an annualised basis, average approvals amounts to €379.9m per year across all agencies (although actual drawdown is lower as pointed to earlier).

Enterprise Ireland and IDA Ireland make up the majority of the approvals evaluated, accounting for 46 percent³² and 37 percent of total approvals respectively. The evaluated expenditures relating to SFI accounted for 11 percent of approvals and relates only to SFI support for the Centre for Science, Engineering and Technology and the Strategic Research Cluster Programmes. In the case of the CEBs it relates to start-up funding only (although this equates to approximately 70 percent of funding provided to enterprises by CEBs in the period evaluated).

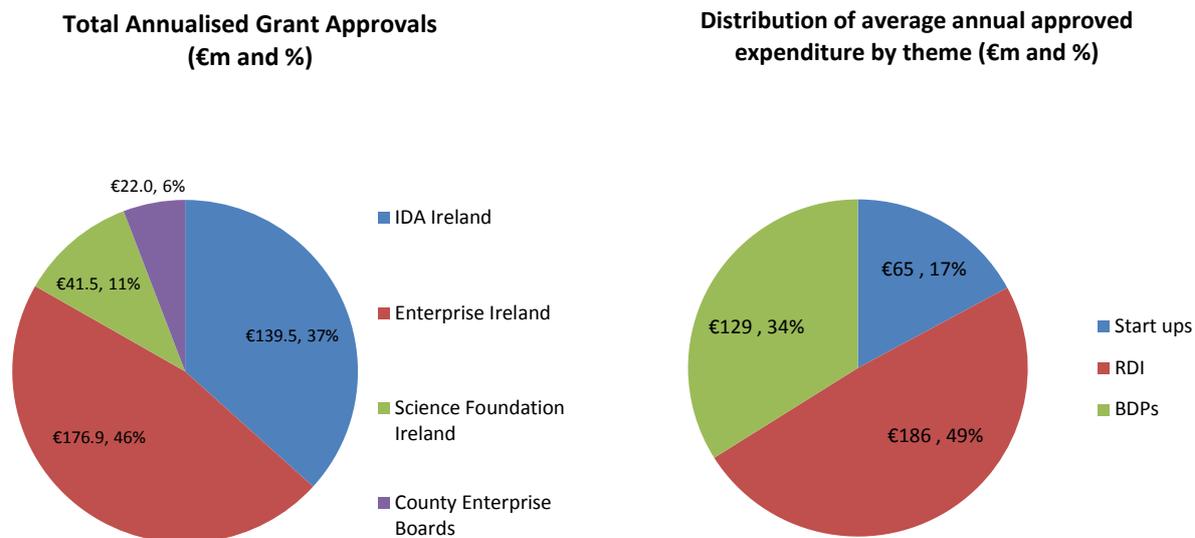
In the case of IDA Ireland, it should be noted that IDA do not have specific 'programmes' of support. IDA Ireland focuses on individual companies and projects and the type of grant support (capital, employment, RD&I and training) is tailored to the specific need with relevant ex-ante and ex-post evaluation at the project level. While this is appropriate operationally for IDA Ireland, it adds complexity in terms of how overall expenditure by IDA Ireland on grants can be evaluated.

In respect of Enterprise Ireland, detailed due diligence in the form of commercial, market and/or technical assessment is carried out at the project level on an ex-ante basis. Additionally, projects in excess of €150,000 are subject to cost benefit assessment and a range of value for money criteria, including additionality in respect of jobs and exports. In deciding to support any given project, a critical factor is the requirement for investment from promoters and/or external investors, which serve to reduce the risk faced by the State and represent an important commercial validation of each project. Individual project outcomes are also systematically considered as part of assessment procedures for future funding proposals.

³¹ Within the individual programme evaluations, in cases where a review had already been undertaken in the previous 3 year period, the review was used in line with the Evaluations Framework

³² Note, Enterprise Ireland approvals figure includes average of €22m per annum in Seed & Venture Capital Funding

Figure 10.1 Summary of Evaluations Approvals by Theme and Agency



Source: Enterprise Agency Data

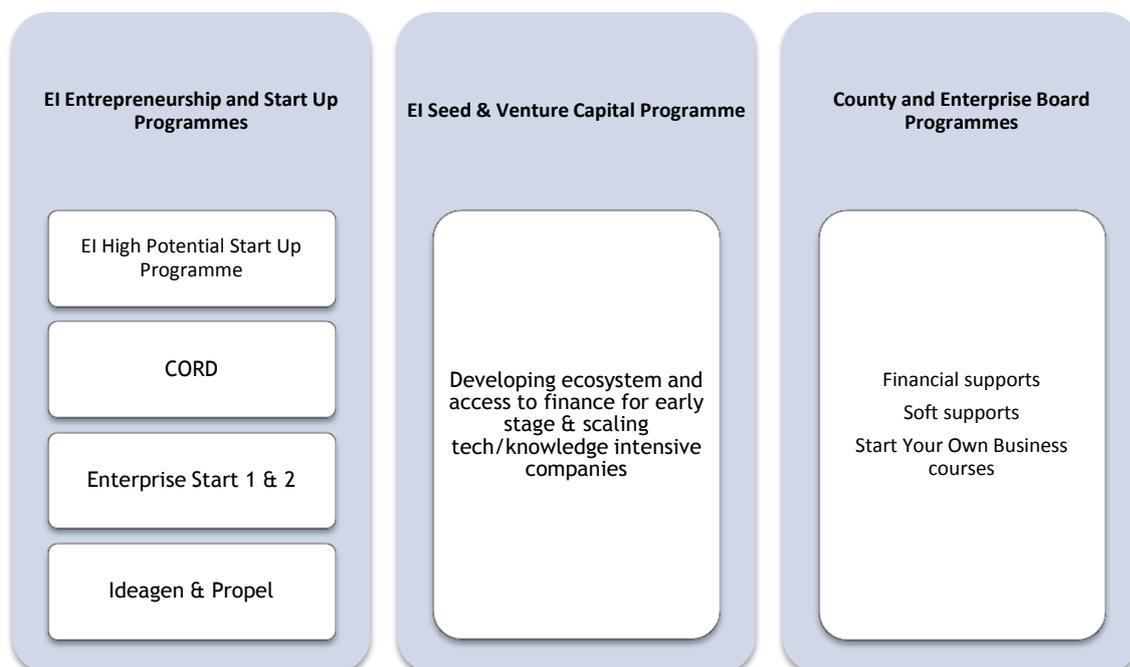
With regard to broad themes across the agencies, RD&I supports account for €186m (49 percent) of approved expenditure evaluated, business development programmes, have average annual expenditure of €129m and start-ups of €65m. See Appendix III for further detail.

The following sets out a summary under each of the thematic areas. The findings and recommendations reflect the position at the time the suite of evaluations was completed. At this point, a review of progress and implementation has yet to be undertaken although one is now recommended. All individual programme evaluations and summaries by thematic area are available on www.djei.ie³³.

³³ Evaluations of Start-Up and Entrepreneurship Supports (2012); Evaluations of Research Development and Innovation Supports (2013); Evaluations of Business Development Supports (2014)

Entrepreneurship and start-ups - key findings

Box 1. Supports for Entrepreneurship and start-ups



The suite of supports evaluated span a broad range of potential entrepreneurs and start-ups, through from the CEB supported micro firm that generates employment, to the High Potential Start Up (HPSU) that demonstrates greater potential for growth within a relatively short time period. The evaluations encompass Enterprise Ireland's HPSU programme, its five entrepreneurship generator and training initiatives, the CEB's start up supports and the Enterprise Ireland Seed & Venture Capital (VC) programme in terms of its contribution toward improving the ecosystem for start-ups.

Each initiative has been evaluated in its own right in terms of appropriateness, effectiveness and efficiency as well as in the context of other supports and in terms of alignment with national enterprise policy. In general, the evaluations demonstrate that the programmes met their objectives and delivered positive outcomes - for example:

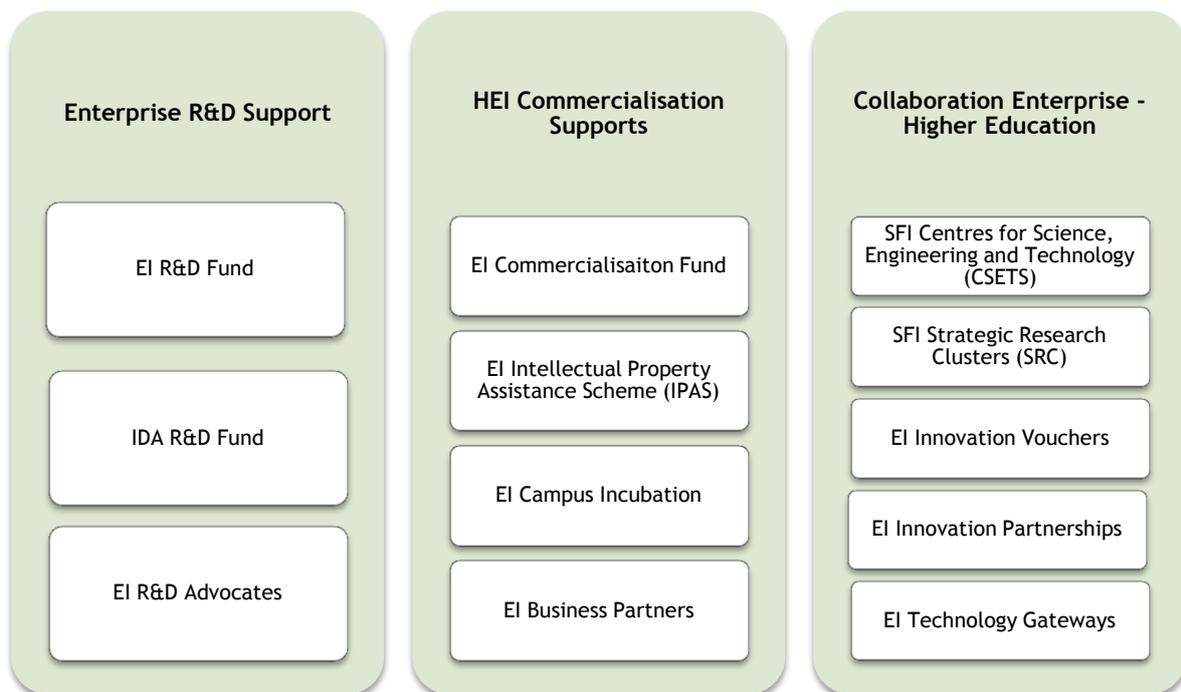
- Turnover per employee for HPSUs increased over the evaluation period (2004-2010) by 114.8 percent. The comparator group showed an increase of 8.4 percent over the same period.
- Exports as a percentage of sales for HPSUs increased from 32.6 percent in 2004 to 79.8 percent in 2010. The comparator group saw fluctuations within the range of 35.6 percent and 38.9 percent.
- The typical CEB handles some 800 to 1,000 queries annually. In terms of Start Your Own Business training, there were almost 18,900 participants over the period 2004 to 2010 and an average year on year growth rate in participants of 7.5 percent. At a minimum, 50 percent of course participants go on to start up a business, with an additional 10 percent using the course to enhance their management of an existing business.
- By the end of 2010, the total VC investment funding available under Schemes 2 and 3 amounted to €1.023 billion, of which €114m is dedicated seed funding.
- The pool of VC funds available and investments made for innovative start-ups has expanded. According to EVCA data, all Irish VC firms have invested circa €963m in Irish firms since 2000. This compares well with the previous decade when Irish VC firms invested approximately €358.7 m.

- Private funds invest in Enterprise Ireland Partner Funds: Each €1 committed by the State to the Enterprise Ireland partner funds attracted €3 of private investment. This compares favourably with similar government interventions in the UK where investments between 2000 and 2009 had a leveraging effect of £1:£1.30.

Changes have already been made by Enterprise Ireland in the launch of the New Frontiers programme that replaces the Enterprise Platform Programme, Propel and CORD that go some way to addressing issues regarding effectiveness that were raised by the process. Overall the individual supports aimed at stimulating entrepreneurs and start-ups are appropriate, in that they are aligned with national policy, and in general are effective and efficient.

Research, development and innovation - key findings

Box 2. Supports for Research, Development and Innovation



The evaluations of the RD&I programmes focus on those delivered by the enterprise development agencies that have a ‘touch point’ with industry and represent circa 26 percent of total government expenditure on Science and Technology (which was estimated at €912m in the Science Budget 2011).

The evaluation involves 12 programmes in total, with five initiatives accounting for the major proportion of support. These are focused on building in-firm RD&I through the IDA Ireland R&D Fund and the Enterprise Ireland RTI Scheme; developing scientific excellence and collaboration between HEIs and firms through the CSETs and SRCs programmes delivered by SFI; and commercialisation through the Enterprise Ireland Commercialisation Fund³⁴.

The overarching findings indicate that, in general, the individual RD&I programmes are appropriate, efficient and effective. Although the programmes have the ultimate aim of increasing business RD&I to

³⁴ An evaluation of the Enterprise Ireland Technology Centres was completed by EI in 2014. The Technology Centres programme was not sufficiently advanced to allow for meaningful evaluation at the time that Forfás evaluations of RD&I programmes took place

deliver new and enhanced products and services for markets, they each play a different role within Ireland's National Innovation System (NIS).

Qualitative and quantitative indicators are used to demonstrate the effectiveness of the programmes in terms of meeting their stated objectives. Evidence of behavioural additionality is important, particularly given the relatively nascent stage of Ireland's NIS. The evaluations point to increased academic-industry links, an increase in the industry relevance of the research conducted in research groups, increased mobility of research staff to industry, increased awareness of the value of commercialisation of state funded research, and enhanced in-firm capabilities. A cost benefit analysis (CBA) has been undertaken where appropriate, that is, for those programmes that are closer to market and where the attribution of economic outcomes can be more readily determined. In all cases where CBA has been assessed, a positive return has been realised by the State.

The main findings at programme level are set out below.

In relation to the **IDA Ireland R&D Fund**, the evidence shows that the programme was effective in delivering on its objectives to increase the embeddedness of foreign subsidiaries in Ireland and to help them to 'move up the value chain' (evidenced, for example, by an increase in skills and technical capabilities). The availability of the R&D grant (and the R&D Tax Credit), together with the advisory and marketing role played by IDA Ireland project executives strengthened the ability of Irish based subsidiaries to capture strategic responsibilities against intense competition from other affiliates. The cohort of plants that availed of the R&D Fund performed better overall in terms of employment growth. A cost benefit analysis shows return of €5 was achieved by 2009 for every €1 of state investment (the methodology is set out in the main report).

The evidence shows that companies that received supports under the **Enterprise Ireland RTI Scheme**, increased strategic and technical skill levels, investments in R&D activities and export intensity since they first obtained grant approval. The Irish owned cohort demonstrated a greater resilience than the broader Enterprise Ireland client base in terms of employment growth over the period to 2002 - 2012, which spans the economic crisis. An analysis of cost benefit indicates that a return of €1.82 was achieved in the year 2010 for every €1 of state support. It is also important to recognise that the evaluation period spanned an economic cycle of boom and bust - for example, the CBA for the period to 2007 (i.e. immediately prior to the recession) demonstrates a return of €3.34.

The **Science Foundation Ireland CSETs and SRCs** (now replaced with a hub and spoke model) evidenced a considerable change in behaviours among participating HEI researchers and enterprises. The impacts included improved long-term strategic industry-academic relationships; development of multi-disciplinary teams; and increased mobility of research staff to industry. CSETs in particular also played a key role in building Ireland's reputation and in helping to attract investment from MNCs into Ireland by building scale in specific research disciplines.

The **Commercialisation Fund** was initiated in 2003. The evidence shows that the programme delivered to its objectives in terms of patents, licences and spinouts; that additional investments in R&D were made by firms to further develop licensed technologies; and that a number of research staff moved into the private sector. Changes in behaviours and skills levels were evident in terms of enhanced abilities of Principal Investigators to develop and maintain relationships with commercial partners; deliver applied research projects and solve problems in relation to commercialisation. A cost to benefit ratio was estimated for the companies that had licensed technologies or spun out having received supports from the commercialisation fund. Taking into account the time-lag to realise economic return the CBA indicates a return of €2.04 by 2015 for every €1 of state investment. A redesign of the Fund since 2010 will further strengthen the commercial orientation of state funded research from the outset.

The remaining interventions are delivered by Enterprise Ireland and involve relatively low levels of expenditure. The evidence indicates that each of the programmes is effective in achieving its stated objectives. They aim to: broaden the base of RD&I active companies (Advocates); to 'fast-track' new

company creation (Business Partners); and to stimulate linkages and collaboration directly and/or to create the environment that is conducive to collaboration (Innovation Vouchers, Technology Gateways, Campus Incubation). For example, the evidence for Business Partners indicates that a relatively high proportion of the 19 entrepreneurs engaged have delivered pre-HPSUs or HPSUs since the pilot was initiated in 2009. The use of R&D Advocates was successful in targeting a broad range of 'inactive' Enterprise Ireland companies. In this case, the evaluation found that the approach, while effective, covered a wide agenda with companies (e.g. marketing, business strategy) and the Advocates now reside within the Potential Exporters Division. The Innovation Vouchers effectively engaged 1,602 small businesses (including non-agency clients) in innovation activities and have demonstrated benefits in terms of increased outputs, value add and employment.

The findings from the evaluations will help to inform future STI policy development; in particular it is recommended that:

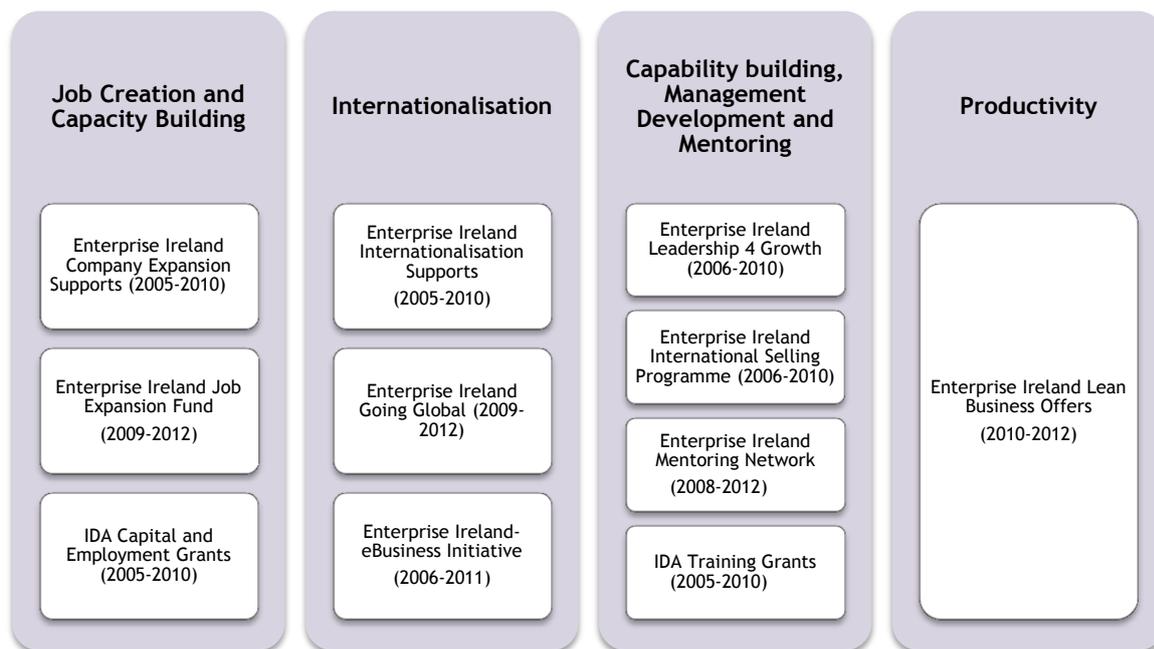
- The system view of the NIS be re-asserted, taking into account the findings of the individual RD&I evaluations to inform the most appropriate suite of programmes to deliver on objectives - and to clarify the contributing role that each plays within that system;
- Within this context, preserve the distinctions between the academic-led user oriented research agenda of the CSETs/SRCs and the research agenda determined by industry for the Technology Centres or Gateway Centres (for example), underpinned with clarity as to objectives and expectations in terms of outputs and time to achieve economic outcomes;
- Determine, where possible, a clear link of quantifiable outputs for each programme to the overall NIS metrics (the work of the research Prioritisation Action Groups is relevant in this regard); and
- Introduce a system of ex-ante evaluations, informed by the DJEI/Forfás evaluation framework, across the enterprise development agencies programmes. It is crucial that the use of the programme logic model become embedded as best practice - to ensure that the objectives are clear and measurable, that the target population is defined, and that the most appropriate metrics are identified, together with mechanisms for data collection. The establishment of control groups should also be given consideration (acknowledging that this is challenging where the intervention has full coverage) and utilised wherever possible for the purposes of estimating a counterfactual in the context of assessment of additionality.

Recommendations have also been set out to address issues raised at individual programme level and to continuously enhance their overall performance.

Business development programmes - key findings

A total of 31 Business Development Programmes (BDPs) were evaluated, packaged in 10 evaluation reports, involving a total of €750m in approvals (which equates to an average annualised amount of €129m). The BDP supports - categorised in terms job creation, internationalisation, capability and productivity - are aimed building capacity and capabilities within firms with the objective of increasing jobs and exports. Over 77 percent of the annualised approvals relate to Enterprise Ireland Company Expansion Supports and IDA Ireland Capital and Employment Grants, with Enterprise Ireland Internationalisation and IDA Ireland Training Grants making up a further 14 percent.

Box 3. Business development programmes



The evaluations span the crisis period and supported enterprises have performed well in this context. Notably, since 2009, export intensity has increased considerably within the Enterprise Ireland client base from a relatively stable 40 percent over the period 2000 to 2008 to levels of 56 percent in 2013. Employment growth in agency supported entities has also been more advanced since 2009 than the wider economy.

In general the individual programmes are working well in terms of achieving their high level goals of jobs and export growth and have delivered positive outcomes. The exception was the relatively small scale eBMI programme (involving €4m in approvals and 262 companies), in that it was not possible to definitively attribute outcomes to participation in the programme. For internationalisation supports, the highest effect on exports is achieved for companies that also received other supports in the period evaluated. Where CBA analysis was undertaken, a positive return to the state is evidenced. For, example, the evaluation of IDA employment and capital grants estimates a return of €3.09 for every €1 euro of expenditure and the Enterprise Ireland company expansion supports estimates at return of €2.81 for every €1 approved. Although not always possible to quantify, the evaluations evidenced significant behavioural additionality identified in skills and leadership, ambition and strategic capabilities, firm survival and sustainability.

The report covering this suite of programmes sets out a number of overarching recommendations, as well as those specific to each programme. Many of the recommendations relate to improving the evaluations and management information systems and processes which, if addressed, will strengthen the evidence based approach to enhancing programmes to maximise outcomes and economic impact and improve efficiencies and to inform enterprise policy development.

As found in other evaluation themes, the analysis points to the need to improve Ireland's evaluation culture and processes that involves undertaking ex-ante evaluations for any new or enhanced programme. Specifically, this also requires that a consistently used programme documentation template is developed that will facilitate more effective evaluation (this would include documenting rationale, metrics, alignment with policy and a standardised programme logic model that includes objectives, inputs and expected causality in terms of outputs, outcomes and impacts) - and both agencies jointly need to progress this.

Specific to **IDA Ireland**, a formal programmatic description of IDA Capital and Employment grants with clear objectives, targets and associated metrics needs to be set out in order to facilitate evaluation in future and should be linked in to regional targets which are set out in IDA Ireland strategy. Improvements need to be made to their management information systems to record the status, progress and performance of all projects to facilitate programme level evaluation and periodic monitoring. IDA Ireland needs also to manage the treatment of those projects that never start. While IDA Ireland carries out significant evaluation and monitoring of grant aid at project level that is subject to strict compliance and audit requirements, consideration should be given to improving management information systems to allow routine monitoring at a programme level for the purposes of evaluation. In terms of training grants, quantified targets should be established, linked to higher level overall IDA Ireland targets (such as the transformation agenda) and IDA Ireland needs to consider how best to incentivise greater use of external input to training in IDA Ireland client companies and of accreditation.

Enterprise Ireland delivers the greater range of interventions to support Irish owned entities. While this is not a new issue, further work is needed to streamline and simplify the full suite of client offers available. This would involve, for example, developing a clear schematic according to theme, and according to target cohorts. The primary objective of each intervention and its role in contributing to Enterprise Ireland's overarching mandate to deliver growth in employment and exports needs to be clearly articulated and documented. The agency is aware of each of the programme specific recommendations, and a small number is set out here:

- Internationalisation supports - design a simpler and more streamlined programme that encompasses the current individual schemes and explicitly integrates and exploits the roles of the international offices, while retaining the flexibility required to continue to address specific company needs.
- Mentor programme - create a single business mentors database for use internally by the main state supported services, building on the existing databases held by Enterprise Ireland and individual LEOs. The 2014 Forfás review of business mentoring also reinforced the need to create and pilot other forms of mentoring including for example, peer-to-peer networks, mentor clinics, on-line services etc.
- Lean programme - key indicators should be developed for each Lean Transform project from the outset in order that a baseline for each project can be established and that relevant data is collected at the end of the project. It is anticipated that an ex-post evaluation will be undertaken toward the end of 2015 led by the Strategic Policy Division, DJEI. An analysis should also be undertaken by Enterprise Ireland to determine the reasons for the low take up by medium sized companies.
- Company expansion supports - consider the merits of additional advice to client companies (subject to resource constraints) and in particular the provision of enhanced guidance to enterprises in preparing funding application and additional advice during the implementation phase of expansion projects - this is particularly relevant to smaller firms.

Concluding remarks - evaluations of agency programmes

In general, the evaluations find that the agency programmes are appropriate and aligned with enterprise policy, effective in meeting stated objectives and efficient. Where control group analysis was possible, the evaluations found evidence that supported firms were more resilient over the period of the recession, achieved higher growth levels in employment and exports, realised greater productivity improvements, experienced higher survival rates. Grants also form a key part of the IDA Ireland tool-kit to incentivise greenfield investment and expansions.

Supported companies also reported increased skills levels and management capabilities, better understanding of overseas markets, greater job satisfaction amongst employees, increased confidence and strategic ambition and improved sustainability. Importantly, agency supports have a strong incentivising effect for companies, bringing forward decision-making and, in many cases, increasing the scale of investment by companies than would otherwise have happened. In all cases where a CBA was undertaken a positive return on State investment was realised, even when adjusted for highly conservative assumptions.

The evaluations have demonstrated that the agency interventions have assisted many firms to weather the economic downturn and take steps to ensure that they are well-placed to take advantage of recovery in global and domestic markets. What is also clear is that retaining existing jobs is equally important in times of high unemployment. There is always a churn within the enterprise agency firms in terms of employment. Interventions aimed at enhancing productivity, re-skilling and up-skilling and strategic leadership development, play a key role in helping to sustain and develop existing companies and the positive impacts of this sustaining activity are not always fully captured in jobs and growth numbers in the short term.

Furthermore, survey evidence gathered through the evaluations also found that many of the activities of the agencies result in positive spillovers that are less quantifiable but are nonetheless crucial to the continuing development and success of the exporting sector. These include the high degree of knowledge displayed by agency personnel in their dealings with client companies, their ability to make connections and introductions for companies and to promote Ireland abroad.

In respect of IDA Ireland, the evaluations also concluded that direct financial supports remain an important part of the overall proposition for attracting investment. It was noted that many other developed countries also offer similar incentives, and without them, Ireland could be at a distinct competitive disadvantage. Furthermore, although increasingly restricted under RAGs, capital and employment grants remain an important element of Ireland's overall attractiveness in light of relative cost competitiveness and intensified global competition for investment.

Perhaps one of the main factors missing from the evaluations to date relates to the complementary and important range of advisory and softer supports and lead generation activities, including those delivered through the agency overseas network. An evaluation of the agency activities delivered through the overseas offices is scheduled to be undertaken by DJEI in 2015-2016.

11. Lessons and recommendations for future evaluations

As the OECD points out, evaluation of enterprise policy is relatively nascent and has some catching up to do with other policy areas (including for example, infrastructure investment or health)³⁵. In this context, the suite of evaluations of enterprise supports has helped to advance evaluations practice and capabilities considerably over the past number of years. The evaluations undertaken by DJEI have served to strengthen the development of individual policy interventions and have provided robust evidence to demonstrate that value for money is being achieved in supporting enterprise development. The approach taken also serves to highlight the complexity involved in isolating the impact of an individual programme from within the overall system.

The development of enterprise supports and policies over the coming decade in Ireland should continue to be underpinned by strong evidence, informed by robust and independent evaluations. As enterprise policy itself evolves toward a systems approach, Ireland is now well positioned to build on its expertise

³⁵ Warwick, K. and A. Nolan (2014), "Evaluation of Industrial Policy: Methodological Issues and Policy Lessons", OECD Science, Technology and Industry Policy Papers, No. 16, OECD Publishing

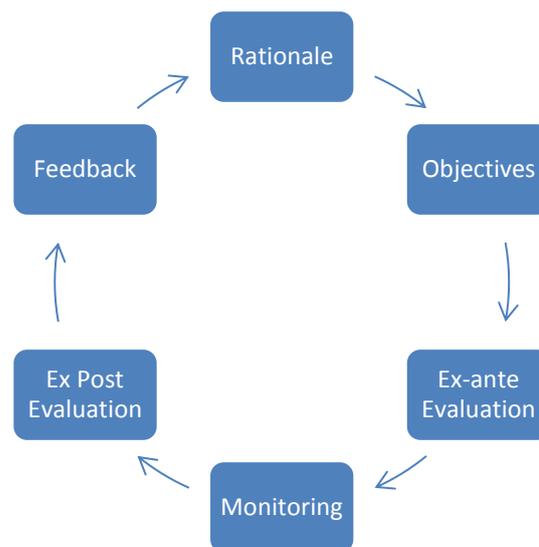
in managing complexity. Nevertheless to the evaluations have highlighted a number of areas for focus in the future development of evaluations practice and enterprise policy development:

- Evaluations culture:
 - Embedding a culture of evaluations;
 - Ensuring proportionality; and
 - Ensuring independence.
- Advancing evaluation methodologies and approaches
 - Managing complexity; and
 - Developmental evaluation.

Evaluations culture

Further embedding a culture of evaluations

As pointed to at the outset, the enterprise agencies have over many years developed detailed evaluation and appraisal processes in place at company and project level designed to ensure economic return for the state. At programme level, although much progress has been made over the past number of years, there remain a number of areas where the evaluations approach could be strengthened. These are dealt with under the evaluations process below.



Rationale, objectives, ex-ante evaluation and monitoring

What the programme evaluations tell us from an enterprise policy perspective is that, in some cases, there could be much closer connection between enterprise policy and agency supports, i.e., being explicit on the rationale for why the intervention is required. In addition, setting out the support objectives within a SMART framework (specific, measurable, achievable, realistic, time-bound) would assist significantly in ex-ante and ex-post approaches. These steps alone would make the evaluations process less cumbersome and would also enable a stronger feedback loop between the system of supports and the policy system. In addition, as the OECD recommends, the development of an evaluation and data strategy at the start of programmes would be important for future programme design.

Ex-ante evaluation at the design and or re-design stages of an intervention should be the norm for all programmes and should cover the following elements: the enterprise policy context; the theory of change and specific programme objectives; why the State should intervene; how the support is intended to operate within the overall system of supports; and its interaction or anticipated synergies with other supports. Synergies can be difficult to capture ex-post, particularly in a complex system of different types of direct and soft supports.

While the agencies have detailed ex-ante evaluation and appraisal at project level in the case of IDA Ireland or investment plans in the case of Enterprise Ireland, information at higher programme level is less consistent with regard to objectives, rationale and metrics. In terms of objectives, although the ultimate aim of agency programmes is to deliver enhanced export and employment growth, the specific programme may seek to achieve this by, for example, increasing R&D activity (with R&D intensity identified as a metric), enhancing productivity, or strengthening survival rates. Furthermore, the expected time to realise impact may differ significantly depending on the type of intervention.

The identification of objectives and clarity regarding metrics at the design stage of programmes can ensure that the relevant data is collected from the outset and monitored on an ongoing basis. Ex-ante evaluation should be undertaken in line with the DJEI/Forfás Evaluation Framework to ensure consistency of approach.

Some progress has been made in this regard between DJEI and Enterprise Ireland. Enterprise Ireland now undertakes continuous monitoring and evaluation of both individual projects funded and programmes, involving ex-ante, interim and ex-post as relevant. In the case of IDA Ireland, the evaluations identified a need to considerably improve management information systems that allow for greater ongoing monitoring of the collective performance of grant-aided entities and for interim and ex-post evaluations at a programme level.

Ex-post evaluation and feedback

Virtually all of the evaluations undertaken as part of the programme of evaluations were ex-post evaluations. The consistent issue with the ex-post evaluations related to lack of clear objective setting and establishment of metrics at the ex-ante stage pointed to previously. In some instances, this required reconstruction of the objectives to provide a basis for the evaluation to begin, which is not optimal from an evaluations practice perspective. In addition, the absence of ex-ante evaluations resulted in some specific data or information that may have been useful to collect at ex-ante stage (for example in relation to existing levels of R&D expenditure or management capability or identification of control groups) not being available or easily accessible for the ex-post evaluation of impact.

Ex-post evaluations should have reference to a clear set of ex-ante objectives and metrics which form the core of the measurement of impact, with clear feedback links between the objectives and metrics to the policy or programme rationale (see section on developmental evaluation below).

Recommendations

- Continue the programme (with a 1-2 year schedule) of evaluations to provide clarity to all involved with regard to timing, resource requirements, and lead responsibility. The evaluations programme should be informed by agency strategic priorities. (DJEI, Enterprise Ireland, IDA Ireland, SFI)
- Ensure that all new and/or significantly modified interventions are subject to an appropriate ex-ante evaluation within the DJEI/Forfás Evaluations Framework and that the findings of such ex-ante evaluation are communicated to DJEI on a timely basis. (Enterprise Ireland, IDA Ireland, SFI)

- Review and improve Management Information Systems (MIS) to facilitate ongoing interim and ex-post programme evaluations and assess any implications required for MIS arising from ex-ante evaluation. (IDA Ireland, Enterprise Ireland)
- Ensure that the findings of the evaluations are used to inform the development of Ireland’s Enterprise Policy 2025 and the Strategy for Science, Innovation and Technology. (DJEI)
- The enterprise agencies to review on a regular basis the overarching responses to the evaluation of programmes undertaken to date, in terms of embedding evaluations culture, progress made on implementation of the recommendations, streamlining supports, and/or new approaches adopted as a result of the evaluations including, for example, designing/developing new initiatives, defining appropriate metrics, data collection etc. as well as detailing reasons why any specific substantive recommendation has not been advanced³⁶. (Enterprise Ireland, IDA Ireland, SFI)

Ensuring proportionality

It is important to retain a proportionate approach with regard to resources given the level of commitment, information and time required to undertake evaluations. Proportionality is also important from the perspective of programme size - accepting that valuable findings can be gleaned from evaluating smaller programmes. These types of findings are important in establishing behavioural change in identifying ‘what is working and not working’ and why.

The more sophisticated approaches such as econometric analysis or full CBA may not always be feasible. In fact a counterfactual may not be easy to establish due to limited data availability³⁷. It is also appropriate to continue to evaluate Enterprise Ireland programmes in a thematic way, grouping different programmes for evaluation which essentially have the same end objectives (e.g. capability building, capacity building, entrepreneurship, RD&I etc.).

Recommendation

- In devising an evaluation, adhere to the principle of proportionality, working within the evaluations Framework to ensure consistency. (IDA Ireland, Enterprise Ireland, SFI)

Ensuring independence in evaluations

It is appropriate that the agencies continue to undertake evaluation of their programmes, including ex-ante, interim and ex-post evaluations. At the same time, it is crucial for the integrity of the evaluations that they are conducted in a manner that is robust, independent and stands up to external scrutiny.

³⁶ It is not intended that a specific response be provided for each individual recommendation

³⁷ The Department of Finance Guidelines for Tax Expenditure Evaluation provide some useful direction in relation to adopting a proportionate approach to evaluation, which provides for three different levels of evaluation depending on scheme size. See Appendix IV. Similarly, the Department of Public Expenditure & Reform Public Spending Code is relevant in this regard.

Recommendations

- Where interim and ex-post evaluations are undertaken, ensure that the reviews are independently led and that DJEI is represented on the relevant programme evaluation Steering Group. (IDA Ireland, Enterprise Ireland, SFI)
- In the case of internal ex-ante evaluations, embed an appropriate process of review that is independent from the design and/or delivery of the programme. (IDA Ireland, Enterprise Ireland, SFI)
- Evaluations of scale and or increased complexity (e.g. systems evaluations) should be led by DJEI and the approach/methodology reviewed by the overarching Evaluations Steering Committee chaired by DJEI (Department of Jobs, Enterprise & Innovation).

Advancing evaluation methodologies and approaches

Managing complexity

Evaluating the direct supports is important for ensuring the individual programmes are appropriate, functioning as they should, achieving specific objectives and delivering additionality.

The evaluations undertaken to date recognise that the agency client companies have access to a range of financial supports and, equally as important, to a range of ‘soft supports’ including advisory supports from the agencies, peer networks, opportunities for collaboration and access to overseas office networks. Given the numerous variables which are difficult to control for (for example ambition, strategic capabilities, flexibility, networks in addition to advisory and soft supports), evaluation of enterprise supports is arguably more complicated than, for example, evaluation of infrastructure projects where the parameters are more clearly defined.

The programme of evaluations of agency supports undertaken to date can be categorised as sitting somewhere in between the OECD ‘complicated’ and ‘complex and complicated’ type of evaluation set out in the table below, whereby the individual programme evaluations are grouped together as part of an overall approach to the development and evaluation of enterprise policy. The OECD sees these types of evaluation as more informative compared to a ‘simple’ approach to evaluations.

Box 4. Two-way classification of the industrial policy evaluation challenge

	Single measure	Package of measures
Standard / well understood	Simple - use rigorous counterfactuals, control groups, state of the art estimation techniques	Complicated - apply single measure techniques to components and where possible, take account of interactions and multiple treatments and influences
Uncertain / complex	Complex - use experimental methods, test/learn/adapt	Complex and complicated. Counterfactuals may not be possible. Apply single measure techniques to components, take account of interactions and systemic effects, use qualitative measures and more informal methods of learning by doing

Source: OECD, Evaluation of Industrial Policy, 2014

In addition to assessing the individual programme appropriateness, effectiveness and efficiency, the programme evaluations helped to better understand the overall system of supports for enterprise, how supports may interact with each other, spillover effects, unintended consequences and the strength of the connection between the supports and overall enterprise policy. For example, there were significant

capability building impacts evident in the evaluations of RD&I and higher additionality arising from multiple supports was evidenced in the internationalisation programmes evaluation. Furthermore, some of the evaluations investigated the potential of partial deadweight to provide a more nuanced explanation of how interventions can have a range of impact and additionality³⁸.

In this more complex and complicated environment, OECD recommend that a variety of evaluation approaches may be required. This includes, programme logic model evaluation and also greater use of qualitative methods, case studies, analysis of secondary data and testing new forms of evaluation such as hypothesis testing. Enterprise evaluation involves number of dimensions which together add up to a picture of 'what's working and what's not working' that is based within a culture of continuous improvement.

In order to strengthen the research and evidence base, DJEI undertook a systems evaluation of Enterprise Ireland supports to assess the impact of combinations of supports. Findings indicate that there is no single combination of supports delivering greatest impact, rather that it is appropriate that Enterprise Ireland continues to deal with companies on a case-by-case basis tailoring relevant supports to companies at different stages of scale and development. Nevertheless, this type of more sophisticated evaluation provides an additional layer of evidence to explain how supports might work as a system to deliver greater impact and value for money.

More focus on the impacts of different funding mechanisms of support, such as grant versus equity supports would also be of benefit, in addition to the evaluation of advisory supports such as the overseas networks as mentioned previously to provide a more rounded picture of impact. There may also be potential to investigate how to improve evaluation of 'whole of agency' performance.

Developmental evaluation

Very much linked to the need to manage complexity, there is potential to experiment with more 'developmental' forms of evaluation methodologies within the existing DJEI evaluation framework. The 'developmental evaluation' concept is congruous with the notion of the 'experimental State' which situates evaluation as a key policy tool in developing modern enterprise and innovation policy. Such approaches could be beneficial where new models of engagement with enterprises are developed and as the systems approach in enterprise policy itself evolves, for example, in the areas of clustering, peer-to-peer networks, or one-to-many interventions.

Developmental evaluation techniques include randomised control trials³⁹ and hypothesis testing. Randomised control trials are more appropriate in pilot programmes that may be rolled out on a much larger scale. Questions regarding 'selection' or fairness in approach can be counteracted through a phased introduction of a scheme. Randomised control trials for enterprise supports have been used in the UK (for example in relation to Innovation Vouchers).

Hypothesis testing or theory-based evaluation could be particularly useful in smaller programmes, where 4-5 distinct measurable hypotheses about how the programme will impact (e.g. increases private sector RD&I, more public-private partnerships) can be 'checked' periodically. This is a short, sharp, less resource intensive approach whereby a programme can be evaluated at a higher level but with quite a good degree of certainty that the programme is doing its job. Where the hypotheses are not acting as intended when checked, a more in-depth evaluation can proceed if necessary. Hypothesis testing has

³⁸ As developed by Lenihan. For example, see Lenihan (2004) *Evaluating Irish industrial policy in terms of deadweight and displacement: a quantitative methodological approach*.

³⁹ Randomised control trials involve randomly awarding supports to some applicants and declining to others and tracking the 'treated' versus non-treated group performance thereafter relative to the programme objectives. There may be challenges in implementing in the context of a relatively small enterprise base, state aid and regulatory and legislative issues would need to be considered

been trialled in Australia (Productivity Commission) in regulatory impact assessment. The OECD has pointed to a potential template for such an approach (Appendix V).

Recommendations

- Undertake an evaluation/review of the agency overseas office networks as part of the overall system of supports and mechanisms to stimulate trade and investment (DJEI, Enterprise Ireland, IDA Ireland, Evaluations Steering Group).
- With the agencies, schedule further evaluations that target understanding more complex areas of impact such as network and clustering activities, ‘one-to-many’ supports, peer-to-peer learning or ‘whole of agency’ performance. (DJEI, Enterprise Ireland, IDA Ireland, Evaluations Steering Group).
- Using the concept of developmental evaluation, identify an appropriate intervention and undertake an ex-ante review. An example might include the proposed approach being undertaken by Enterprise Ireland in developing mid-tier companies. (DJEI, IDA, Enterprise Ireland)

12. Learnings for future enterprise policy and optimum resource allocation

Although the individual programme evaluations and the increased understanding of their complementarity have been extremely informative, it is not possible to draw definitive conclusions regarding financial resource allocation across the different thematic areas or cohorts of enterprises. There is no evidence to suggest that any thematic area of support is not performing and the evaluations serve to highlight the specific role that each programme or theme plays within the overall enterprise policy context. The individual programme evaluations also collectively provide a comprehensive bank of evidence that helps policymakers and agencies to improve the overall system for design and delivery of supports for enterprise.

Overall, the agencies take a company centric approach, which tailors support to company need and strategic development. The enterprise cohort is different for each of the agencies as set out above and therefore so too is the range, rationale and objective of each direct intervention. Even within the agency client bases, there is a range of companies of very different scale, strategic ambition and lifecycle stage. In this regard, having a suite of supports available to companies depending on size and stage of development is appropriate. The agencies rightly invest in a company’s development, rather than programmes per se.

The individual programme evaluations along with the high level analysis presented herein has pointed to some aspects that warrant further consideration in terms of informing the agencies’ own approaches to resource allocation and/or utilisation of the tool-kit available to them. The evaluations show that the enterprise agency financial supports are aligned with enterprise policy objectives and, in broad terms, aim to either:

- increase capacity - i.e. to stimulate greenfield or expansion investments (increase the base of companies); or to
- build capability in order to accelerate growth in job creation and/or exports and/or to garner strategic responsibility within a global corporation (e.g. through leadership and management development, investments in RD&I, enhancing productivity and competitive positioning in an international context).

The evaluations provide evidence that there is no either/or in relation to the above objectives. In this context, the evaluations reinforce the need to ensure appropriate balance between activities focused on

capacity and capability building and the role of each in contributing to jobs and growth. Such a balance is based on the concept of a continuing spiral of ‘competence building - capacity building - competence building...’ depending on lifecycle stage and baseline capability and/or strategic positioning within a corporate. There is also a constant churn within the client portfolio base, as new companies are established and/or invest here, as some are acquired (and perhaps transfer from one agency portfolio to another) and respond to external drivers of change and opportunity. The appropriate suite of responses may also be determined by the broader economic environment, by Government policy priorities, by EU State aid guidelines and by the challenges and opportunities faced by enterprise at a particular point in time. Coming from an evidence base means that any such decisions are well informed.

The following policy principles can be drawn from the analysis overall in relation to the importance of continuing to focus on:

1. *Broadening the base of companies* that:

- invest in Ireland (including start-ups, foreign direct investments, expansions, overseas entrepreneurs);
- are exporting and/or have the potential to do so;
- engage and invest in RD&I to develop and deliver differentiated products, services and solutions and address new market opportunities; and
- are involved in value added and productive activities.

2. *Building depth in capability* within enterprises:

- to develop core competences that are not easily replicable and that enable them to build scale and to gain leadership positions in markets;
- to set strategic, long term ambitious goals for growth with the ability to deliver on them;
- in terms of Irish owned entities, to strengthen strategic approaches to identifying and utilising appropriate sources of funding/financing at appropriate stages of development; and
- in terms of foreign owned entities, to play a key strategic role within their global corporation.

The analysis (while not being prescriptive) leads to the following observations.

The importance of extending an active and competitive company base...

The evaluations indicate significant value in those supports provided by the LEOs, Enterprise Ireland and IDA Ireland that:

- stimulate new company formation and first time investment (including start-up and initial investment supports); and that
- incentivise behavioural change within existing companies and enhance their ambition and competitiveness.

With the exception of initial investment funding, the range of supports that stimulate initial engagement in RD&I (e.g. innovation vouchers), productivity (Lean Start) and mentoring represent a relatively small proportion of the overall agency support expenditure. These supports are crucial in terms of broadening and refreshing the client bases and need to continue to be part of the intervention mix. The LEOs also play a key role in this regard in actively targeting and working with the large base of enterprises within their locale.

However, small companies in particular point to a complexity in terms of what is on offer. This complexity (perceived or otherwise) may be exacerbated to some extent by marketing approaches that ‘brand’ certain interventions to attract a particular cohort of prospective clients - e.g. to attract more

female entrepreneurs, or focused on a specific region or sector. Although Enterprise Ireland has made some progress in streamlining its suite of offers, there is scope to further simplify the menu of options available for start-ups and early stage entities. The government's SME support tool⁴⁰ also attempts to guide SMEs to the most appropriate agency. It is also crucial that relevant Development Advisors within Enterprise Ireland and the LEOs are adequately equipped and can signpost to other relevant service providers if/as necessary (including for example Skillnets).

The importance of capability building from the outset

The high level analysis shows that small companies that have engaged in management development have high growth outcomes relative to the general population. This would indicate the value in delivering such supports to this cohort. Consideration should be given by the LEOs and by Enterprise Ireland as to how best to ensure that appropriate capability building supports such as mentor services and/or management development are provided either in advance of any other financial incentives and/or as part of an overall capacity building financial support package (i.e. 'smart' money). Such a focus would also serve to deliver on the ambition set out in the Entrepreneurship Policy to strengthen survival rates of start-ups.

A continuing and concerted approach to building leadership and management capabilities...

The leadership/management development and skills measures within Enterprise Ireland demonstrate a significant impact in terms of mind-set change, levels of ambition and strategic capability to deliver on an accelerated growth path.

Nevertheless, the evidence also indicates that there have been a smaller proportion of approvals focused on management development and skills development over more recent years. Enterprise Ireland anticipates an increase in participation in management and skills development programmes as a new cycle of long-term management development programmes begins.

Particularly in the context of the scaling agenda within Enterprise Ireland, it would be important to achieve a step change in participation by client companies in leadership, management and skills development through existing programmes, collaboration and/or strategic engagement with relevant actors such as Skillnets. The value of the spillover impacts of sustained peer-to-peer engagement evidenced in the L4G programme should also not be underestimated. There may be further potential to facilitate increased peer-to-peer knowledge sharing activities that involves both Irish owned and foreign owned entities as appropriate and depending on the particular focus (e.g. collaboration, global sourcing).

The need to review (and refresh) offerings for investment and re-investment in light of intensified international competition...

Initial capital and employment investment provided through IDA Ireland capital and employment grants, and Enterprise Ireland's expansion grants equates to circa 26 percent of total supports (annual average over the period 2003-2013). These grant aid programmes operate within the Regional Aid Guidelines, and are therefore restricted to certain regional locations throughout Ireland. Nonetheless, these supports can (and do) help to support regional development. It is important to be aware also, that as Irish owned entities become more mobile and/or have mobile functions such as RD&I), Ireland will compete for expansion investment against other locations.

Under State aid rules, company size determines the level of grant intensity for support. As companies increase in scale, they no longer qualify for the higher levels of SME aid. In this context continuing

⁴⁰ <https://www.localenterprise.ie/smeonlinetool/businessdetails.aspx>

efforts to improve the availability of innovative bank and non-bank finance are critical to provide access to a broader range of financial instruments.

IDA Ireland is now attracting foreign enterprises that are at an earlier (or first) stage of internationalisation. It is likely that the broader range of internationalisation activities, accelerator programmes and sources of funding (e.g. VC funds) are more pertinent to this cohort than has been the case heretofore for IDA Ireland client companies.

Acknowledging that an intervention is but one element of the attractiveness of a location for investment, it is timely for the agencies to revisit how combining or packaging of supports might provide a more compelling proposition encompassing, for example, lean, RD&I (including innovation in services and business process), environmental & training supports.

Developing strategic client engagement models

As discussed above, the agencies develop strong working relationships with their client base. As companies progress on a growth path and/or compete against affiliates for the next wave of investment, it is important that the State plays a supportive role. Sectors and activities continuously evolve, and so too do the companies and their way of doing business. Investment, therefore, is not a 'one-off', but involves a continual spiral of improvement and transformational change.

The analysis points to the challenge faced by the enterprise development agencies to target supports where it is likely to generate optimum return on state investment, deliver both job creation and export growth and where it delivers a better outcome than would have been achieved without intervention. The nature, ambition and capabilities of companies differ (within both Enterprise Ireland and IDA Ireland portfolios); enterprises are at a different scale and stage of lifecycle development; the opportunities and challenges are company specific and the agencies operate with limited resources.

The analysis points to: high returns achieved when dealing with companies of scale (as evidenced in IDA Ireland RD&I programme evaluation); greater returns achieved from companies that received more than one support; the increase in numbers and proportion of companies of scale within Enterprise Ireland's portfolio as a result of sustained engagement; the sustained impact resulting from investment in leadership development; as well as the success of lower cost interventions in broadening the base and activity of enterprises (e.g. evaluation of Enterprise Ireland Innovation Vouchers).

Based on the analysis and findings of the overall suite of evaluations, the agencies are better informed as to how to develop a more strategic and targeted approach to working with its client cohort. This would involve, for example considering when and where an intense engagement model would be of value (e.g. in working with mid-sized companies to grow to next stage of scaling; in managing on-off supports in a more efficient manner through e.g. a degree of on-line service delivery such as diagnostics tools for Lean and/or one-to-many service delivery options); in dealing with the broader range of needs of early stage foreign owned entities; in working with more mature entities on transformation; in tailoring supports more effectively etc.

Conclusion

The evaluations to date have served a number of functions. They assist the agencies at operational level to assess the effectiveness of programmes and make adjustments and improvements as appropriate. Broadly, they have highlighted that the supports are effective and aligned with enterprise policy goals. It is important to maintain a focus on evaluations within DJEI and across the agencies and that the lessons learned are consistently fed back to the policy system in order to ensure continual improvement in the range of supports for enterprise.

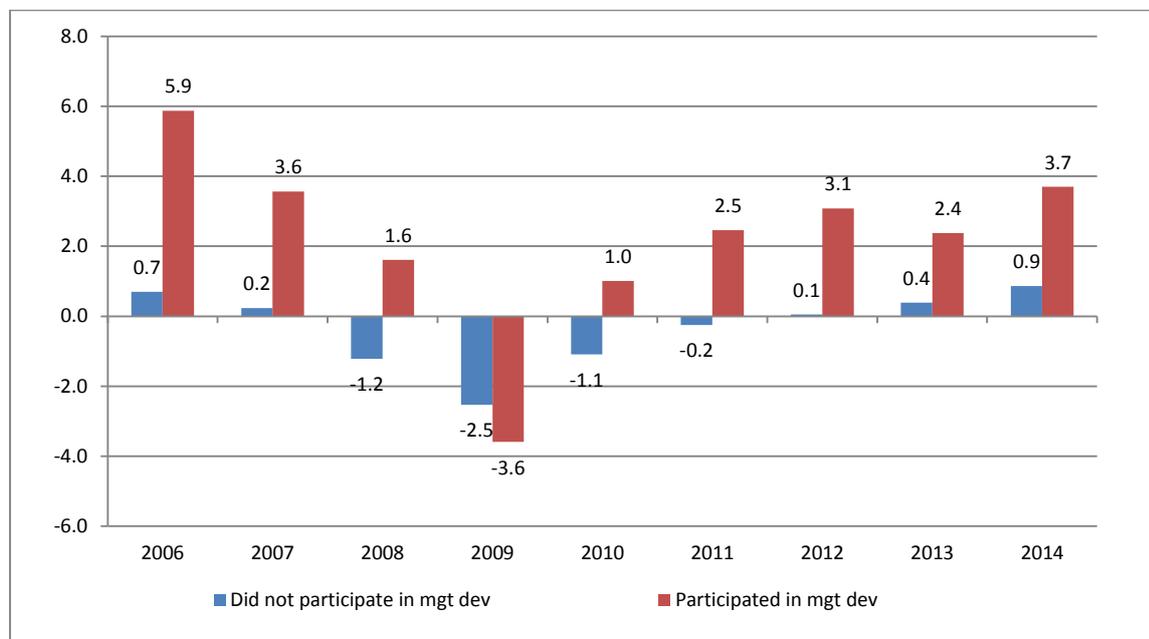
Appendix I

Employment in Enterprise Ireland firms and management development

Enterprise Ireland client companies that participate in management development programmes appear to exhibit stronger employment growth. It should be noted that these measures are proxies for activity and do not represent the totality of Enterprise Ireland activity in management development as only the major programmes are included.

The graph below shows the average employment increase and decrease per annum for 824 Enterprise Ireland clients that engaged in at least one of Enterprise Ireland’s management development programmes between 2006 and 2013 compared with those that did not. Aside from in 2009, the average employment increase/decrease per firm in companies that engaged in management development programmes significantly outperforms that for firms that did not. The average increase in employment per ‘engaged’ firm over the period is 2.8 per annum compared to -0.2 per annum for firms that did not engage in management development. In summary, there appears to be a strong link between participation in management development programmes and employment.

Employment growth per firm and management development participation 2003-2013



Source: Enterprise Ireland; DJEI Annual Employment Survey

The trend also holds for companies of less than 10 employees (see table below).

Average increase/decrease in employment per firm (size less than 10) and participation in management development

	2006	2007	2008	2009	2010	2011	2012	2013	2014
Did not participate in mg dev	-0.04	0.02	-0.15	-0.44	-0.22	-0.10	-0.03	0.10	0.22
Participated in mg dev	0.93	0.97	1.08	0.72	0.39	0.31	0.81	0.36	0.19

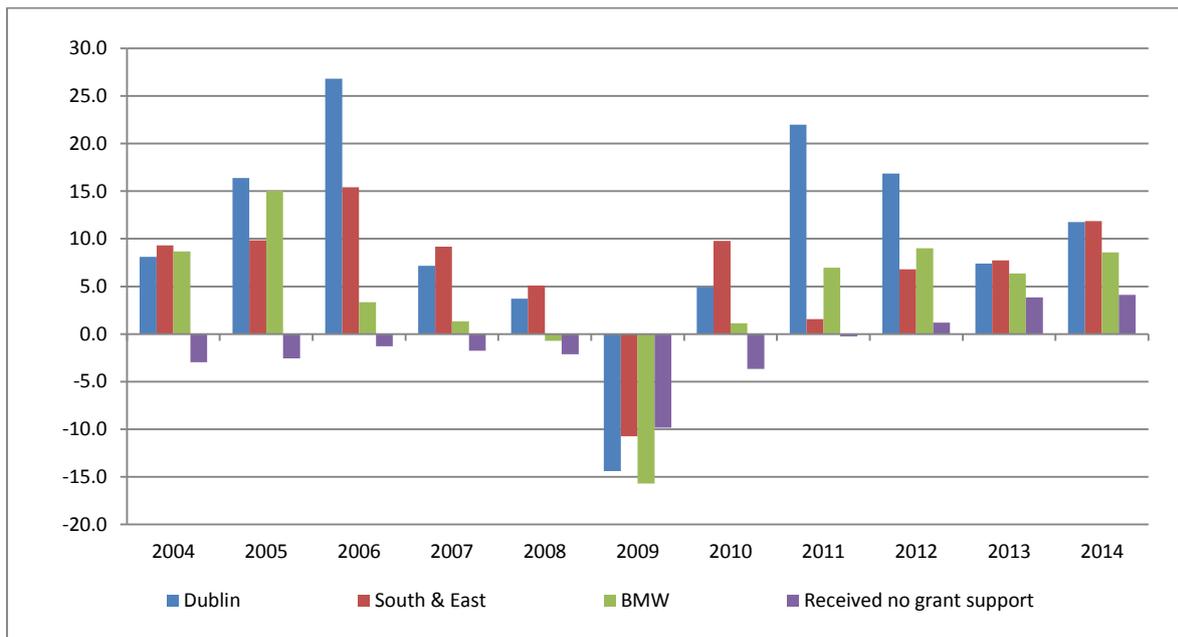
Source: Enterprise Ireland/DJEI Annual Employment Survey

Appendix II

Employment in IDA Ireland supported firms by region and non-supported firms

Looking at the average increase/decrease in employment per firm at broad regional level shows variances across regions and across years. This is mainly due to the effect of significant new projects or expansions in a given region and year.

Average increase/decrease in employment per firm by region 2004-2014



Source: IDA Ireland grants data; DJEI Annual Employment Survey

In broad terms, the supported firms on average increase employment year to year, with the exception of 2009 where employment per firm declined across all regions. Average employment performance per grant aided entity is higher across all regions and all years relative to companies not in receipt of grant support.

Employment recovered positively in supported entities across all regions in 2010, most significantly in the South and East, with the Dublin and BMW regions driving increases in 2011 and 2012 and with more broadly based average increases in evidence across all regions in 2013 and 2014. In all regions, the recovery in employment was relatively higher in supported entities than those not in receipt of support.

Appendix III

Evaluations of Enterprise Supports - Approvals Data Summary

Total approvals across all years €2,459 million

Total indicative annualised €379.9 million

Annualised by Agency

	Total Annualised €m	Percentage 'share'
Total IDA	139.5	37%
Total EI	176.9	47%
Total SFI	41.5	11%
Total CEBs	22.0	6%
Total	€379.9	100

Agency by thematic area and agency

Theme	Agency	€m Annualised	% Total
Start Ups	EI	43.3	66%
	CEBs	22.0	34%
	Total	65.3	100%
Start-ups Percentage of Overall Total	17%		
RD&I	EI	60.9	33%
	IDA	83.1	45%
	SFI	41.5	22%
	Total	185.6	100%
RD&I Percentage of overall Total	49%		
BDPs	IDA	56.3	44%
	EI	72.7	56%
	Total	129.0	100%
BDPs Percentage of Overall Total	34%		
Overall Total		379.9	

Appendix IV

Department of Finance Guidelines on Evaluation and Proportionality

Average annual cost	Level	Ex-Ante	Ex-Post	Time Limit / Review
Between €1m and €10m	Level 1	Ex-ante assessment and identification of criteria for ex post evaluation	Application of ex post criteria	Five years to review
Between €10m and €50m	Level 2	Detailed assessment - scenario based analysis or similar and statement of proposed methods and data requirements for full ex post cost benefit analysis	Full ex post CBA	Five years to trigger review. Interim review after three years if annual costs exceed €25m
Greater than €50m	Level 3	Full ex-ante CBA and statement of methods and data requirements for full ex post CBA Pilot scheme if possible	Full ex post CBA	Interim review after three years

Source: Department of Finance

Appendix V Developmental Evaluation

Developmental evaluation explicitly recognises the complexity of exogenous factors in evaluation and has the following characteristics.

	Traditional evaluations	Developmental evaluation
Purpose	Renders definitive judgements of success or failure	Provides feedback, generates learning, supports direction or affirms new direction
Success measure	Measures success against predetermined goals	Develops new measures and monitoring mechanisms as goals emerge and evolve
Independence	Positions the evaluator outside to assure independence and objectivity	Positions evaluation as an internal, team function integrated into policy development
Design	Design the evaluation based on linear cause-and-effect logic models	Design the evaluation to capture system dynamics, interdependencies and emergent interconnections
Learning	Aims to produce general findings across time and space	Aim to produce context-specific understanding that informs further policy development

Source: OECD (2014) Evaluation of Industrial Policy

Appendix VI

Developmental Evaluation - Hypothesis Testing Framework Template

Evaluation Evidence Assessment Framework (EEAF)													
Policy, programme or project													
Policy, Programme or project objectives													
Period evaluated													
Section A: policy or programme logic model and theory of change		→	Section B: Policy or programme outcomes and impacts		→	Section C: Factors contributing to outcomes and impacts		→	Section D: Overall assessment of effectiveness and value for money		→	Section E: Summary conclusions and policy implications	
Section A: Policy or programme logic model and rationale													
Motivation	Inputs	Activities	Outputs	Outcomes	Beneficiaries	Impacts							
Rationale or Theory of Change													
Propositions-hypotheses		Evidence		Conclusion		Commentary							
Section B: Key propositions on programme outcomes and impacts – achieved and in prospect													
Section C: Key propositions on factors contributing to outcomes and impacts, especially role of the evaluated intervention													
Section D: Overall assessment of the effectiveness and value for money of the public sector investment – achieved and in prospect													
Section E: Summary conclusions and implications for future policy or programme formulation & delivery													

Source: Henry and White within OECD (2014) Evaluation of Industrial Policy⁴¹

⁴¹ Warwick, K. and A. Nolan (2014), "Evaluation of Industrial Policy: Methodological Issues and Policy Lessons", *OECD Science, Technology and Industry Policy Papers*, No. 16, OECD Publishing, Paris.

