



Gníomhaireacht Bainistíochta an Chisteáin Náisiúnta
National Treasury Management Agency

Ciste Infheistíochta Straitéisí d'Éirinn
Ireland Strategic Investment Fund

IRELAND STRATEGIC INVESTMENT FUND

BASELINE ECONOMIC IMPACT REPORT AS AT 31 DECEMBER 2014

15 DECEMBER 2015

The unaudited Baseline Economic Impact Report as at 31 December 2014 was published on 2 July 2015. This final Baseline Economic Impact Report as at 31 December 2014 replaces the report published on 2 July 2015 and should be used to measure the future economic impact progress of the ISIF.

Summary Metrics

31 Dec 2014

Discretionary Portfolio	€7,171m
ISIF – Capital Committed	€1,424m
Total Fund/Project Size in Ireland/Co-investor Multiple	€3,135m/2.2x
Market Value of Capital Invested/Drawn	€726m
Employment	12,005 jobs
Regional Mix of Investments	44% Dublin/56% ex Dublin
Turnover*	€711m
Exports (as a % of Turnover)*	28%
Irish Based Wage Bill*	€432m

*12 month period (2014)

Assumptions & Methodology

Assumptions & Methodology

1. Underlying investees are either direct or indirect (i.e. through Funds), the economic impact data is gathered through a semi-annual survey process of the direct and indirect underlying investees. The economic impact of an underlying investee is only included once i.e. where the NTMA has more than one indirect investment in an underlying investee the duplicate economic impact is removed from the analysis.
2. The NTMA completes a check of all survey data for reasonableness. However, the NTMA is reliant on the underlying investees to provide accurate data and is not in a position to verify the data submitted.
3. The financial metrics (i.e. the size of the discretionary portfolio, capital committed, capital invested) as per NTMA, Annual Report and Accounts for the year ended 31 December 2014.
4. The high/low economic impact split is based on an internal NTMA assessment of the economic impact of the capital committed as at 31 December 2014. High economic impact is defined as persistent additional economic impact whereas low economic impact is defined as either short term economic impact or an accelerator investment (slide 8).
5. The regional distribution of capital deployed (slide 9) is weighted based on the capital deployed as at 31 December 2014 and data provided by the underlying investees detailing the location/regional activities of the underlying investee/project. Where underlying investees operate on a nationwide basis, the capital deployed is weighted by population, this population data is sourced from the Central Statistics Office (CSO).
6. The majority of underlying investees (74 out of 76 underlying investees) provided the number of jobs and wages paid as at 31 December 2014 directly, there are some exceptional cases where the data was unavailable and the following assumptions were applied:
 1. In the case of construction projects where third party/contracted headcount was provided but a wage bill was not available, an average wage was applied to the third party/contracted headcount. The average wage by sector was sourced from the CSO.
 2. In the case of construction projects where reliable headcount was not available, we evaluated the drawn capital of the project over the 12 month period for 2014 and applied a Construction Industry Federation multiplier to the capital expenditure to estimate the number of employees. All of these employees are accounted for in the short term employment numbers (slide 10).
7. Part time jobs and short term jobs are all allocated to short term for the purposes of the 2014 report, going forward part term jobs of a persistent nature will form part of the persistent/permanent job number where applicable.
8. In line with industry standards, an indirect employment multiplier is applied to direct jobs. The NTMA calculation of employment multipliers is based on CSO methodology and verified by CSO (slide 10).
9. Exports are weighted based on turnover and an estimate provided by the underlying investee of the percentage of turnover generated from exports (slide 11).
10. The underlying investee profitability analysis (i.e. the earnings before interest and tax/EBIT) is split between early stage companies, which have not yet made a profit, and more mature companies, which can either be profitable or loss-making.

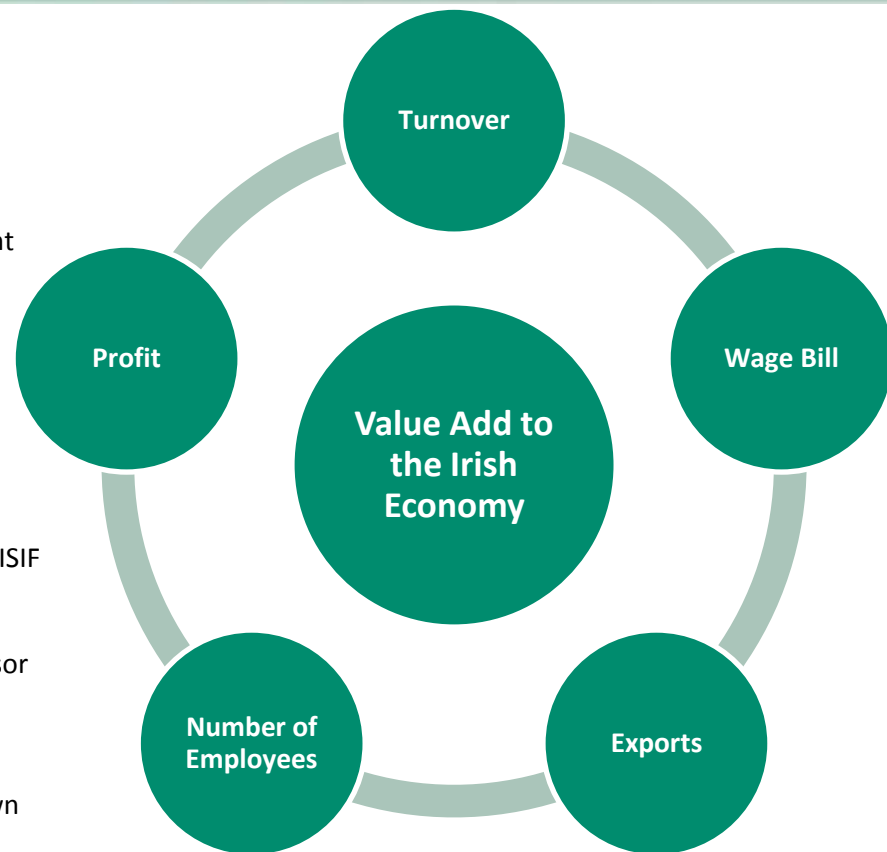
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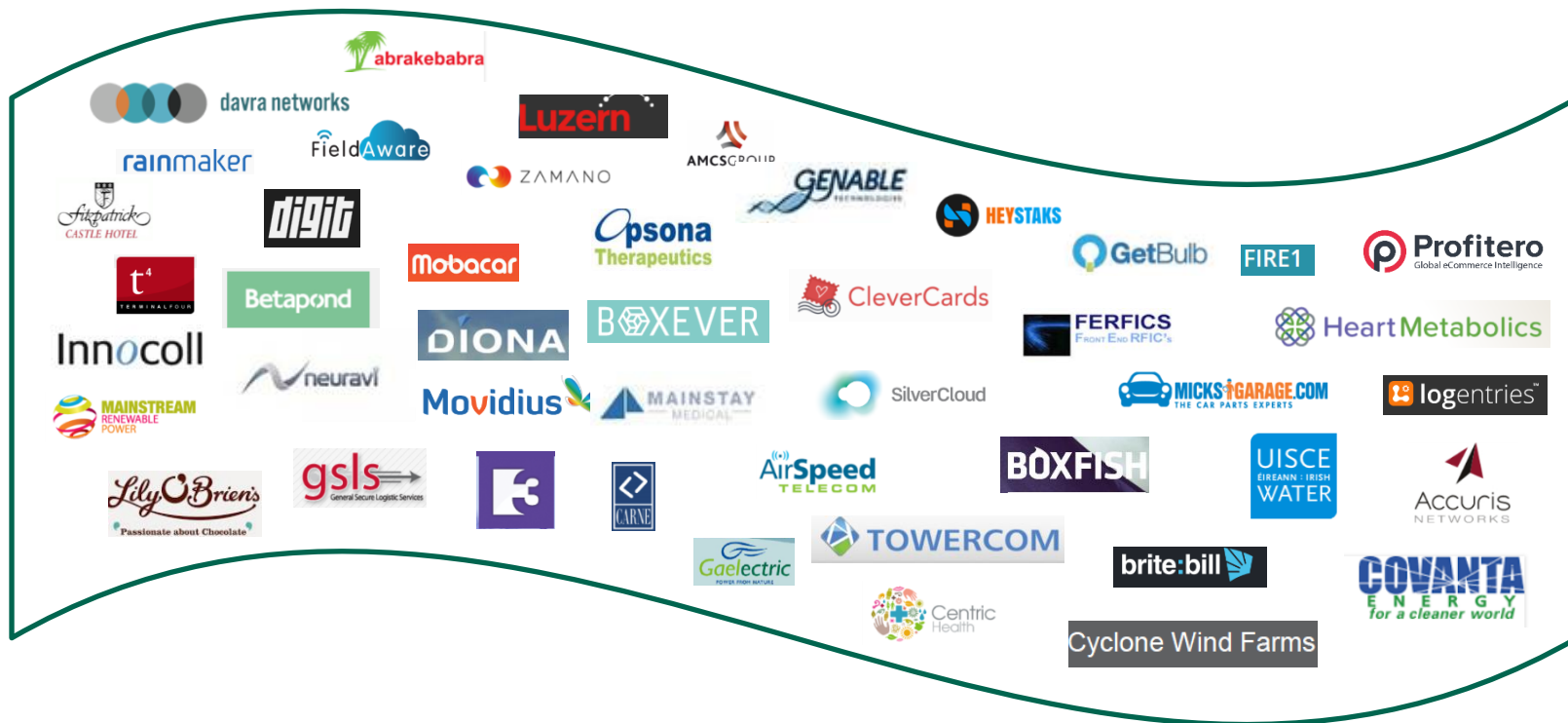
Measurement of Economic Impact - Context

- The ISIF commenced on 22nd December 2014.
- The ‘double bottom line’ mandate for the ISIF is investment return and economic impact – investing on a commercial basis designed to support economic activity and employment in Ireland.
- The basis for the economic impact element is described in the ISIF Investment Strategy document.
- Economic impact is measured through the “value add” to the Irish economy, including employment, from the underlying companies and projects the ISIF invests in. There are many different dimensions to value add, which are captured in this baseline report.
- The NTMA gathers economic impact information by surveying the underlying companies and projects either directly or through the managers of the funds ISIF is invested in – this process is to be carried out on a half-yearly basis.
- As of 31/12/2014 the ISIF, mainly through investments made by its predecessor fund the NPRF, has committed €1.4 billion to investments aligned with its mandate.
- Economic impact is generated from €726m of investment commitments drawn at 31 December 2014.
- As at 31 December 2014, the ISIF invested in 76 Irish based underlying investees/companies/projects (through either direct investment or the funds ISIF has invested in).
- This report provides an economic impact baseline as of 31 December 2014 (effectively the commencement of the fund) against which future progress of the ISIF can be assessed.



Snapshot of Underlying Investees at 31 December 2014

- We surveyed our investment companies and collected data from 76 entities at 31 December 2014, comprising 4 direct investments and 72 investments via funds that ISIF has invested in (see Appendix 2).
- The reported economic impact activity is generated from €726m of investments. A significant majority (79%/60 companies) of the underlying companies are through venture capital funds.



ISIF supporting Irish-based companies through commercial investments

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Economic Impact Results – Context

- ISIF has a dual mandate and makes investments on a commercial basis. It is important to understand that investment is very different from the provision of grants, or the incurring of expenditure by the state in support of economic impact. As the Fund is expected to make a financial return, there is no depletion of State resources arising from its activities. Therefore economic impact achieved by ISIF is effectively at zero cost to the Exchequer. Furthermore, when investments are sold, the proceeds can be recycled into further investments, which in turn can generate additional economic impact from the same initial capital .
- ISIF's investments in Irish based companies and projects not only create jobs directly through direct employment, but also have an indirect effect through service contracts and capital investments entered into by investee companies and projects. This indirect employment effect is estimated conservatively through the use of employment multipliers.*
- In addition, an induced employment effect is generated arising from direct and indirect employees spending their income in the Irish economy. This induced effect is difficult to measure and has therefore not been included in the ISIF numbers.
- The underlying investees deliver a mix of short term economic impact (e.g. construction) and long term persistent economic impact (e.g. early stage companies).
- Permanent/persistent jobs currently account for 81% of total jobs while the remaining 19% of jobs are generated from fixed term investments that are typically project based. While these employees may move onto other projects, ISIF only accounts for the jobs for the period of its investment.
- Venture capital/early stage businesses accounted for 79% or 60 out of the 76 companies at 31 December 2014, representing 29% of investments made. This is largely because venture investing in Ireland was an element of the NPRF's investment strategy in the years prior to the commencement of the ISIF. Venture capital has a critical role in economic development. The majority of the companies are at an early stage in their business life cycle. Consequently, they initially generate low levels of economic activity. Profits, wage bill, number of employees etc. should improve as businesses transition from the start-up stage to the growth and expansion stage.
- As deployment increases the Fund is expected to develop a more balanced mix of early stage and more mature companies.

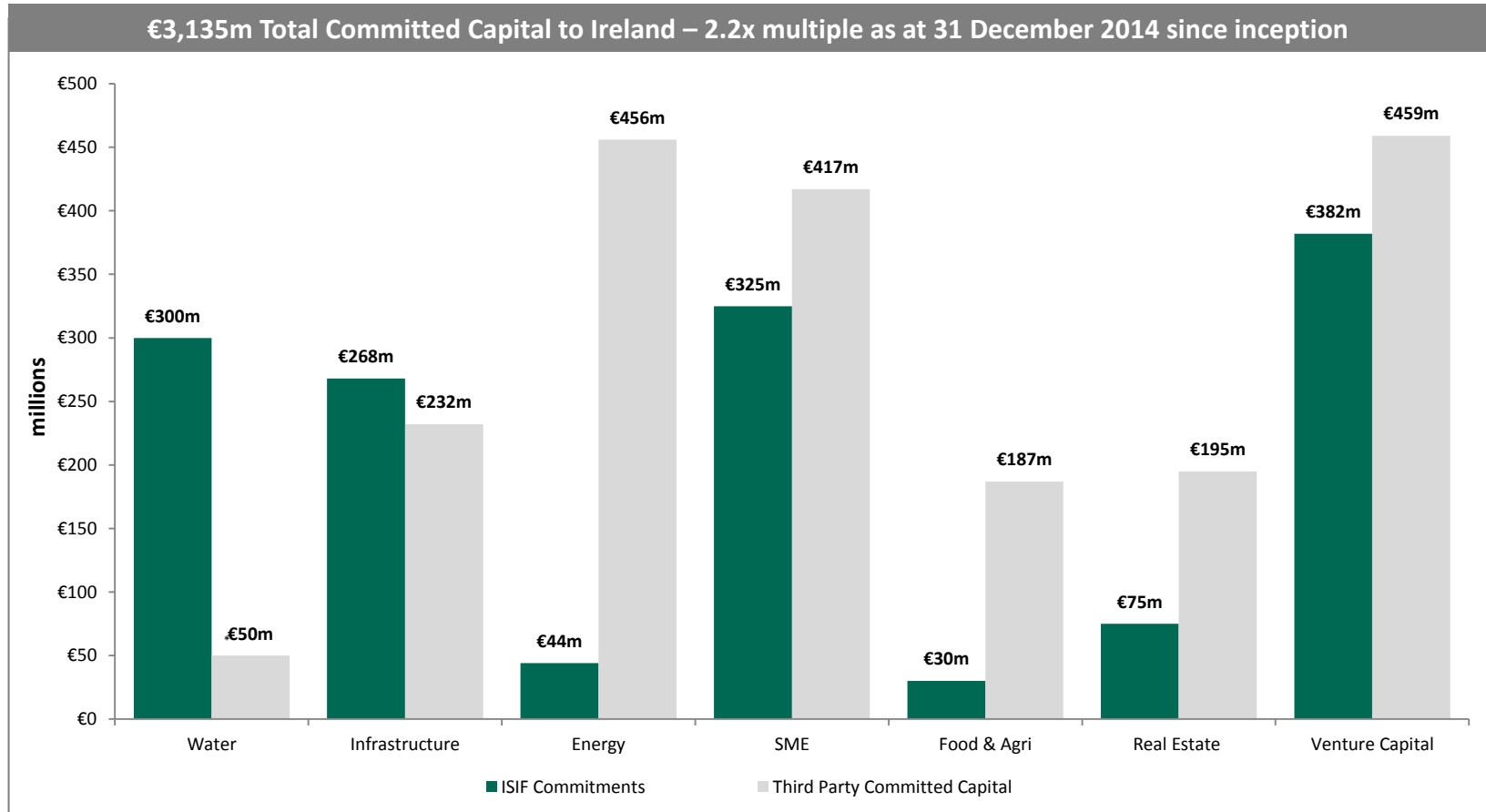
* NTMA calculation of employment multipliers based on Central Statistics Office (CSO) methodology and verified by CSO.

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Significant Third Party Capital

€1,424m ISIF committed capital with €726m invested at 31 December 2014 across a range of sectors. (Appendix 1 for individual investments)



* The Irish Water facility was a government guaranteed bilateral facility



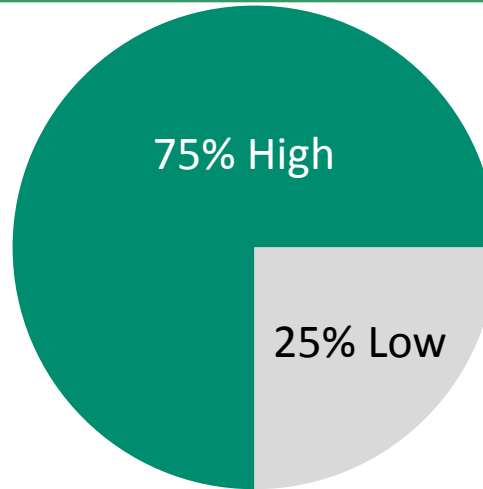
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High and Low Economic Impact

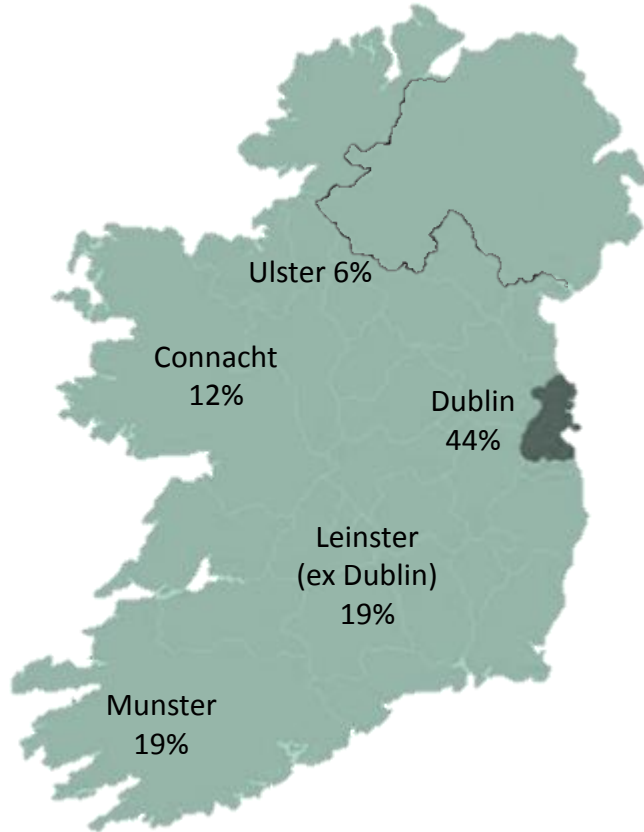
- The ISIF Unit will allocate the majority of its capital to priority sectors and investments where the highest economic impacts are likely, while also ensuring that all investments satisfy the Fund's commercial return objectives.
- The ISIF will target approximately 80% of the ISIF's capital towards investments where the highest and most sustainable economic impacts are likely with the remaining portion available for investments which will provide short term gains, act as an accelerator of market activity or address instances of market dysfunction. This 80:20 split is a long-term target, with 60:40 identified as the initial target for year end 2015.
- 75% of the committed capital as of 31 December 2014 is in high economic impact transactions, with 25% in lower economic impact transactions.

Committed Capital Economic Impact



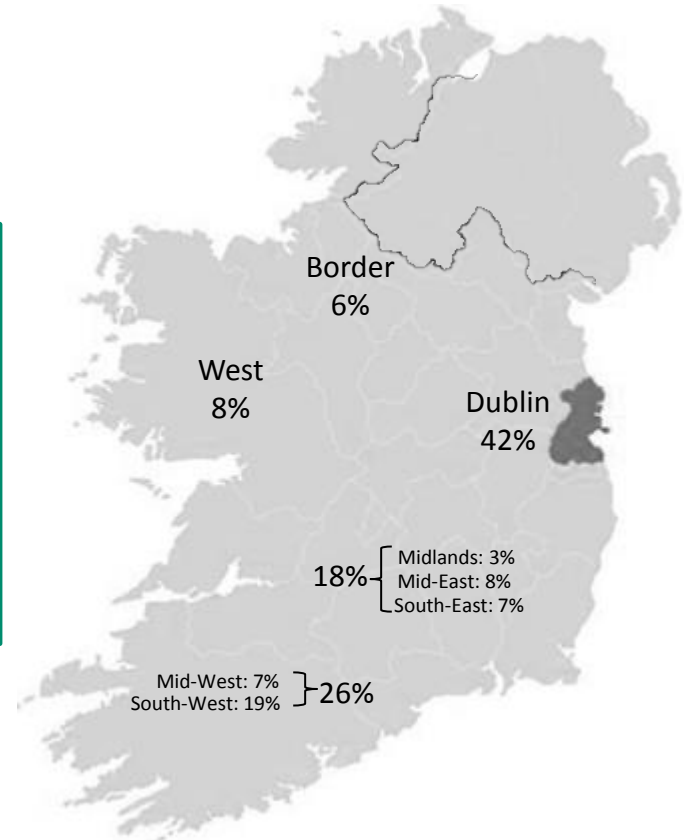
Investments by Region

ISIF Regional Distribution of Capital Deployed¹



ISIF is not required to target regional investment opportunities. The amounts invested to date are broadly consistent with ROI regional GVA data with 56% of investments outside of Dublin

CSO Gross Value Added per Region (2012)²

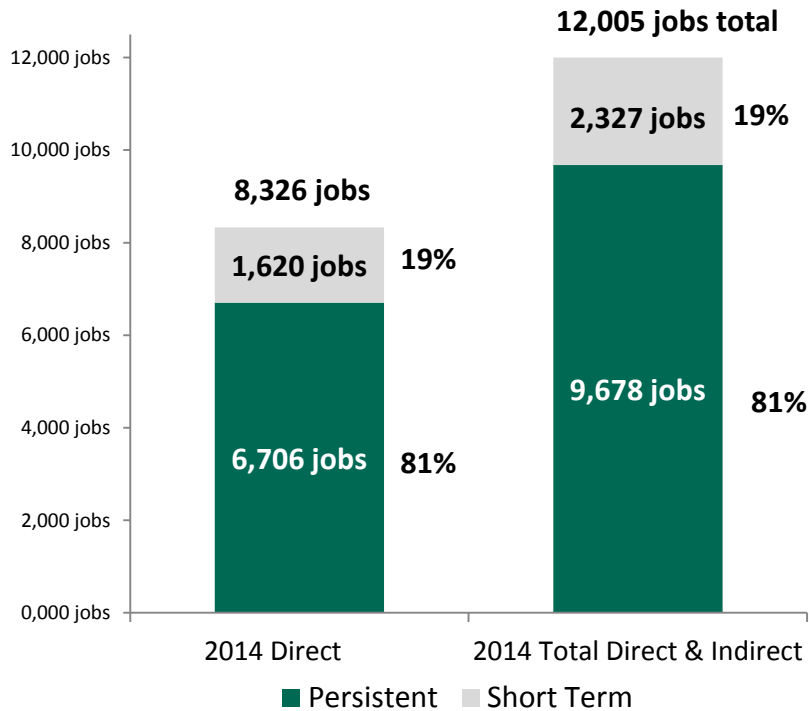


¹ Companies regionally apportion according to turnover or population where turnover split not available and weighted based on amounts invested.

² Regions based on Eurostat/CSO methodology. Gross Value Added (GVA) is a measurement of economic activity in an area. Source: CSO

Underlying Investees Employment

Irish Based Employment



Irish Based Wage Bill FY 2014



1,654 jobs for every €100m invested

Underlying Investees Turnover

Underlying Investee Turnover Analysis¹

Turnover
2014
€711m

Exports FY 2014

€197m of Exports

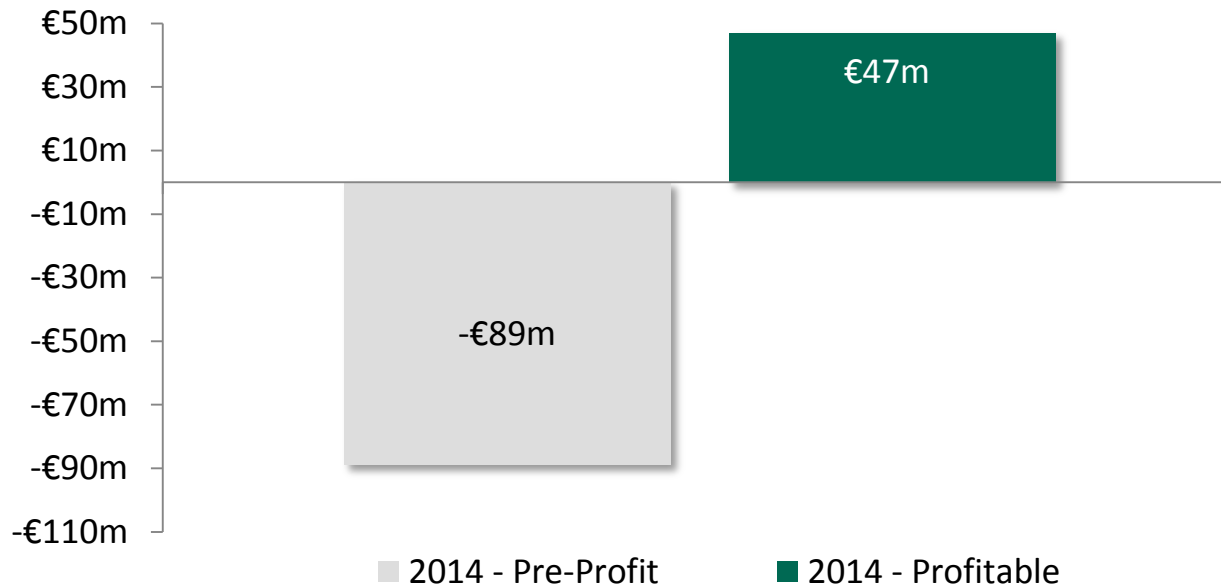
28% of turnover

¹ Turnover generated from underlying investees that contributes no economic impact in Ireland has been excluded (e.g. foreign businesses). Additionally, turnover does not necessarily capture all of the economic impact benefits associated with an investment – for example many of the venture stage companies in the ISIF portfolio are at pre-revenue stage.

Significant turnover generated from the underlying investees despite the number of early stage companies, with a significant portion of turnover from exports (28%).

Underlying Investees Profitability Analysis

2014 Underlying Investees Earnings

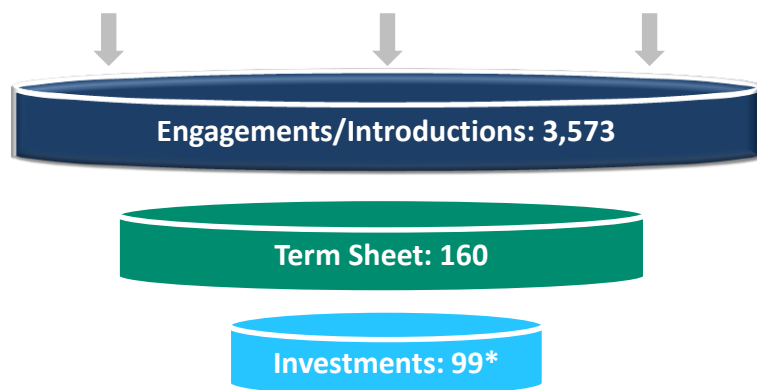


Given the current weighting of venture capital investees (79%) many of the underlying investees through the venture capital funds are early stage pre-revenue/pre-profit companies. As these companies mature the trend should move from negative to positive earnings.



Deal Flow and Transaction Pipeline

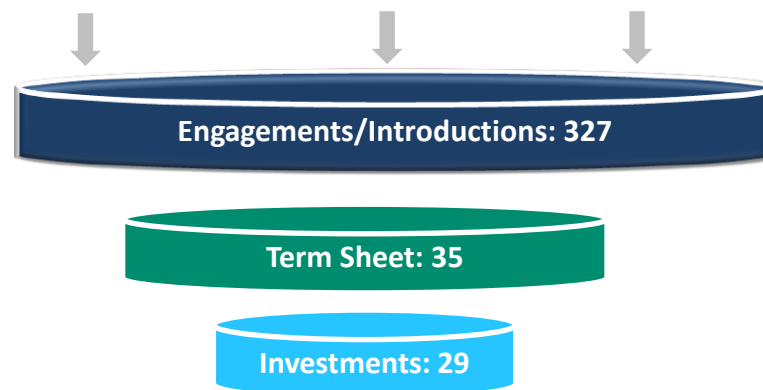
Via Indirect/Funds ISIF has invested in (since inception)



- At 31 December 2014, the funds ISIF invested in had significant engagement throughout the Irish market - with 3,573 engagements and 99 completed investments since inception.

**Based on survey responses – includes expired investments and duplicate investments e.g. where two funds invested in same underlying firm.*

Direct (mainly from early 2013 to 31 May 2015)



- In anticipation of the commencement order and in preparation for the new dual mandate the ISIF Unit in the NTMA has directly engaged with 327 opportunities and completed 29 deals since it began working on the ISIF mandate, all within the 20% limit on Irish commitments set by the NPRF Commission.
- Of the 327 transaction engagements, 29 were executed, while 99 remain active in the pipeline.
- Of the remainder, 144 were declined or lapsed while 55 are currently categorised as dormant.
- The pace of deployment can vary. Private market transactions are typically multi month and can be multi year from the first meeting to investment.
- It is anticipated that larger-value but potentially low-volume transactions will generally be undertaken on a direct investment basis by the Fund . Smaller-value but higher-volume transactions will ideally be invested through third-party funds or platforms. Over time, ISIF aims to cover the totality of the opportunity set within the market.



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ISIF – Open for Business

- ISIF makes investments on a commercial basis, the ISIF legislation as well as Eurostat guidelines and State Aid rules prohibits any non-commercial investments. Commerciality (risk-adjusted expected return) is assessed on every potential transaction.
- As well as the requirement to achieve a commercial risk adjusted return, the Economic Impact requirements for investments should be assessed on 3 economic concepts:
 - ✓ **Additionality**; the additional economic benefits to Gross Value Added (e.g. profit, wage bill, number of employees) which are likely to arise as a result of the investment under consideration, over and above what would have taken place anyway.
 - ✗ **Displacement**; occurs largely in domestic service related sectors where the success of one enterprise is largely at the expense of another.
 - ✗ **Deadweight**; occurs when the economic impact benefits would have been achieved in the absence of an ISIF investment and therefore there is no increase to GVA attributable to the ISIF investment.
- Investment opportunities are being evaluated across all sectors of the economy including Food & Agriculture, SME finance, Infrastructure, Energy, Real Estate, Technology and Healthcare. The ISIF will continue to proactively target investments across Ireland, there is no “application form” and there are no specific criteria, other than Investment opportunities must fit within ISIF’s mandate of achieving both a commercial risk adjusted return and economic impact in Ireland.

ISIF encourages companies and project sponsors to approach it at any stage

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APPENDICES

Appendix 1 - Investment Overview 31 Dec 2014

Project/Fund	Commitment Year	Commitment €m
Irish Water	2013/14	300
Water Total		300
PPP N11	2013	18
PPP Total		18
Irish Infrastructure Fund	2011	250
Infrastructure Total		250
Covanta Poolbeg Project	2014	44
Energy Total		44
Carlyle Cardinal	2013	125
SME Equity Total		125
Bluebay Notes	2013	200
SME Credit Total		200
Forestry	pre 2011	30
Food & Agri Total		30
WLR Cardinal CRE Mezzanine Fund	2014	75
Real Estate Total		75
Atlantic Bridge Fund II	pre 2011	10
Delta III	pre 2011	23
DFJ Esprit III	pre 2011	20
DFJ X	pre 2011	10
Fountain I	pre 2011	15
Investec Partners	pre 2011	18
Polaris VI	pre 2011	36
Seroba Kernel II	pre 2011	15
Sofinnova Venture Partners VIII	2011	9
Highland Technology Europe	2012	10
SVB Capital Strategic Investors Fund V	2012	20
China Ireland Growth Technology Fund	2013	36
Lightstone Ventures I	2013	10
Strategic Investors Fund VI	2013	19
WestSummit Global Technology Fund	2013	36
Fountain II	2014	15
Three to be announced	2014	80
Venture Capital Total		382
Total Live Commitments as at 31 Dec		1,424
Expired Commitments		
PPP Schools Bundle 3	2012	14
Better Capital	2013	50
Total Expired Commitments		64
Total Live & Expired Commitments		1,488

Appendix 2 – Summary Description of the Underlying Investments (1/3)

Fund	Company	Principal Product/Service
Atlantic Bridge	Boxfish	Developer of second screen television platforms
	Fieldaware	Provider of mobile, cloud-based field service solutions
	Movidius	Movidius' Myriad2 is a 28nm chip for vision processing in mobile, wearable products, drones etc.
	Swrve	Developers of games analytics platforms
Bluebay	Gaelectric	Irish-based developer of onshore wind farms in Ireland and the US and offshore wind farms in Ireland
	Airspeed Telecom	Irish broadband provider offering high performance internet for enterprise, public sector and SME business
	TV3	Ireland's only independent free-to-air commercial broadcasting chain
	Killiney Hotels (FitzPatrick Castle Hotel)	Hotel and conference centre
	Centric Health	Healthcare services business providing (i) diagnostic imaging; (ii) primary care and (iii) medical recruitment services
	Carne Global Financial Services	Provider of governance and oversight solutions within the asset management industry
	Mainstream Renewable Power	Leading player in the global renewable energy development market focusing on wind (onshore and offshore) and solar power
CCI	Abrakebabra Investments	Leading fast food franchise owner and operator in Ireland with five trading businesses
	Lily O'Briens	Manufacturer and distributor of chocolate
Covanta	General Secure Logistics Services (GSLS)	Cash-in-transit and money processing
	Dublin Waste to Energy	Thermal waste treatment and electricity production
Delta Partners	Digit Game Studios	Online multiplayer multiplatform games
	Mobattravel	Online car rental , consumer and white label
	Betapond	Betapond provides innovative solutions for marketing on the Facebook platform
	Luzern Solutions	Online retailer and online store provider for new and refurbished goods
	Davra Networks	Management suite for Cisco distributed networks
	Cloudium	Thin Client software and hardware solutions
	Clavis	Reference data quality solutions
	BriteBill	Provides bill presentment solutions to telecommunications and utility companies
	Sim Travel	Local sims for international travellers
	Capella Securities	IFSC investment firm.
	Homestay	Accommodation portal
	mADme	Mobile advertising solutions

Appendix 2 – Summary Description of the Underlying Investments (2/3)

Fund	Company	Principal Product/Service
Delta Partners	What Clinic	Medical treatment portal
	Zapa Technologies	Telecom expense and value management
	Cleverbug	Personalised greeting cards and gifts
	Neuravi	Medical devices for stroke patients
DFJ Esprit	Datahug	SaaS relationship intelligence management/CRM platform
	Mobile Travel Technologies	Develops mobile apps, mobile web and mobile technology products for airlines and travel management companies
	Movidius	Movidius' Myriad2 is a 28nm chip for vision processing in mobile, wearable products, drones etc.
	GetBulb	Data visualisation software
Forestry	First Forestry Fund	Invests directly in forestry plantations diversified across Ireland
Fountain	Neuravi	Technology platform addressing acute ischemic stroke
	Genable Technologies	A development stage gene therapy company, built on a technology platform that provides a unique solution for dominant disorders
	Vivasure Medical	Research and Development medical device company
	Mainstay Medical	Treatment for chronic low back pain
	Trino Therapeutics	Drug discovery and early drug development company
	Opsona Therapeutics	OPN-305 molecule an antibody to reduce pro-inflammatory cytokine production, which is now at the clinical testing phase
Highland Europe	AMCS	Software solutions for the waste management industry
Investec Ventures	Accuris Networks	Software for global mobile operators
	AMCS	Software solutions for the waste management industry
	Betapond	Betapond provides innovative solutions for marketing on the Facebook platform
	BlueTree	BlueTree provides telematics solutions
	BriteBill	Provides bill presentment solutions to telecommunications and utility companies
	Davra Networks	Management suite for Cisco distributed networks
	Diona Technologies	Diona is addressing the demand for mobile solutions in the HHS market
	Directebooks T/A ePubDirect	Helps traditional publishers distribute electronic copies of their books ("eBooks").
	Fenergo	Company develops enterprise software to enable financial institutions to capture customer data
	Ferfics	The company designs and develops components (radio frequency switches)
	HeyStaks Technologies	HeyStaks enables users to collaboratively search the web using search engines

Appendix 2 – Summary Description of the Underlying Investments (3/3)

Fund	Company	Principal Product/Service
Investec Ventures	Mick's Garage	The company e-tails car parts and is Ireland's leading on-line car-parts retailer
	Rainmaker Business Technologies	Provider of business intelligence and performance software to the airline sector
	RAPT Touch	Develops multi-touch screen technologies for incorporation into large screens
	SilverCloud Health	SilverCloud Health Limited provides online therapeutic solutions via tailored clinical programs that sit on a platform
	Terminal Four Solutions	Developer of enterprise web content management software for the higher education market globally
	Zamano	Zamano is a mobile marketing and mobile products company
Irish Infrastructure Fund	Cyclone Wind Farm Portfolio	Portfolio of 10 wind farms located in both the RoI and NI, generating electricity for sale into the Single Electricity Market
	Towercom Limited	Largest independent telecom tower / mast owner in the Republic of Ireland and owns/controls 406 telecom tower/mast sites.
Irish Water	Irish Water	National service provider of water and treatment of wastewater
Lightstone Ventures	FIRE1	Developing a novel, therapeutic medical device for a major unmet medical need.
Polaris Partners	Profitero	Competitive pricing, intelligence and e-commerce insights for brand manufacturers and retailers
	Fazbon	Healthcare Research
	Logentries	Data analytics for IT and business operations
	Novaerus	Novaerus scrubs the air to create the healthiest environment possible
	Boxever	SaaS customer intelligence platform for airline and travel industry
PPPs	N11 Arklow Rathnew PPP	Construction and O&M of roads
	Schools Bundles 3	School building project
Seroba Kernel	Opsona Therapeutics	OPN-305 molecule an antibody to reduce pro-inflammatory cytokine production, which is now at the clinical testing phase
	PQ Bypass	Medical devices required to perform a percutaneous femoro-politeal bypass procedure
	Heart Metabolics	Biopharmaceutical development company focusing on clinical development of a therapy for hypertrophic cardiomyopathy
	Veryan Holdings	Development of stents with a unique 3D geometry, for treatment of vascular disease.
	Novate Medical	Convertible vena cava filter for prevention of pulmonary embolism
	Apica Cardiovascular	Access stabilization closure device
Silicon Valley Bank	Ten underlying investees – bank confidentiality precludes disclosure of borrower names.	
Sofinnova	Innocoll	Collagen based drug delivery platform

Note: this appendix includes 11 duplicate investments, where two funds which the ISIF has invested in have invested in the same company. Additionally, one fund has two additional investees where confidentiality precludes disclosure of investee names.