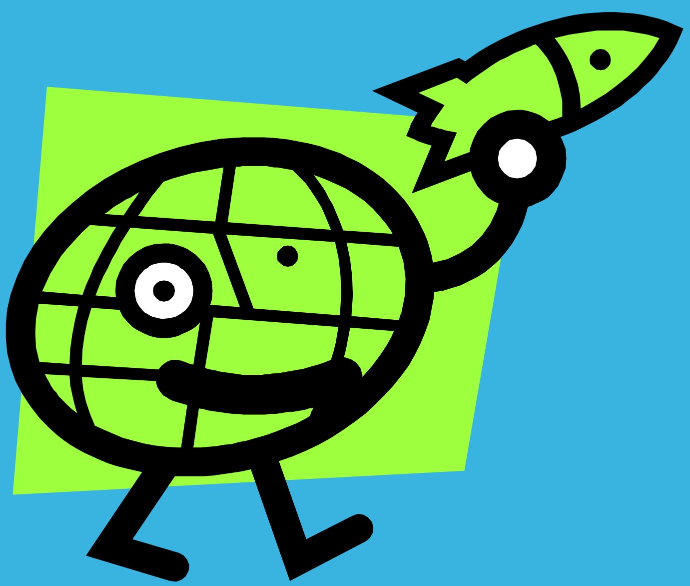
WHAT IS IMPACT INVESTING?

MOMENTUM CONFERENCE 2015



DEFINITION

- *"Investments made into companies, organizations, and funds with the intention to generate social and environmental impact **alongside** a financial return." –* Global Impact Investing Network
- The term impact investing was coined in 2007, but activities of this kind have been around for much longer.
- Impact investment exists across:
  - All asset classes
  - Many sectors
  - All geographies
- Closely allied to but differentiated from Socially Responsible Investment ("SRI") which generally employs negative screening to avoid investing in harmful companies or shareholder activism and advocacy to encourage corporate social responsibility practices.

TYPICAL CAUSES SUPPORTED

Medical treatments, disease prevention and nutrition

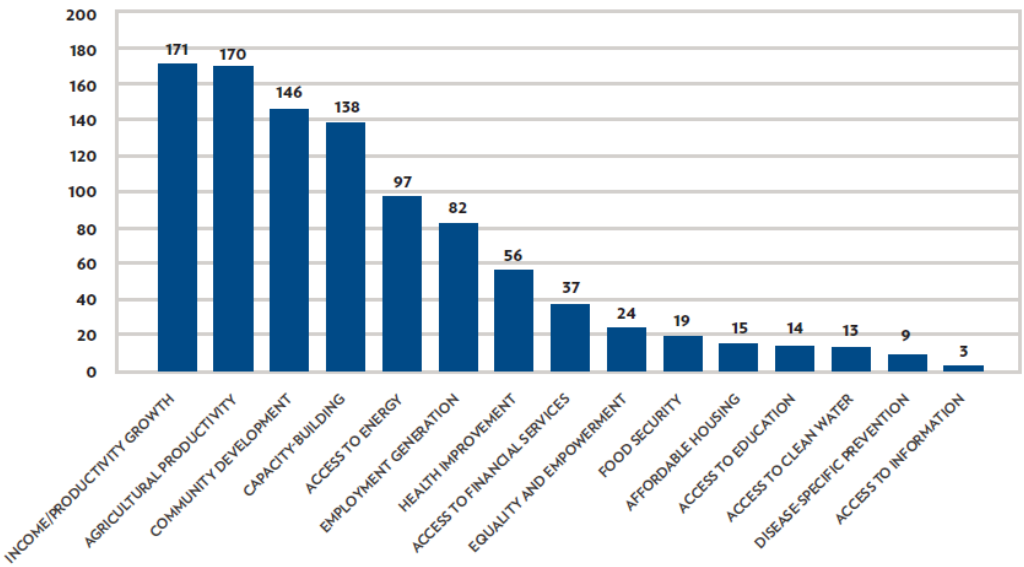
Small business finance, community development, education, gender policies

Sustainable agriculture policies, fair trade, food security

Green technology, patents, environmental policies, income / productivity growth

Water scarcity, sanitation, natural resources and conservation

Number of Organisations Targeting Each Social Impact Objective



Source: Global Impact Investing Network

TYPES OF IMPACT INVESTMENT

Lower Risk / Low Engagement

- Community Financial Institutions
- Special Purpose Funds

Variable Risk / Low Engagement

- Established Microfinance
- Impact Investing Funds

Lower Risk / High Engagement

- Shareholder Activism

Variable Risk / High Engagement

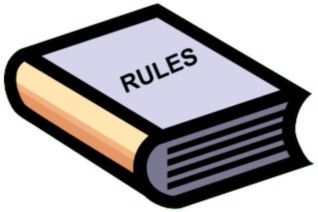
- Program Related Investments
- Direct Investment
- Social Impact Bonds

WHY DO INVESTORS CARE?

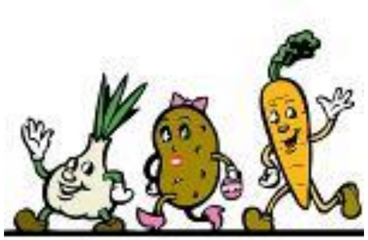
Client or consumer pressures and / or demand

Internal Environmental, Social and Governance ("ESG") policies

Asset owners with social missions



Country-led regulations

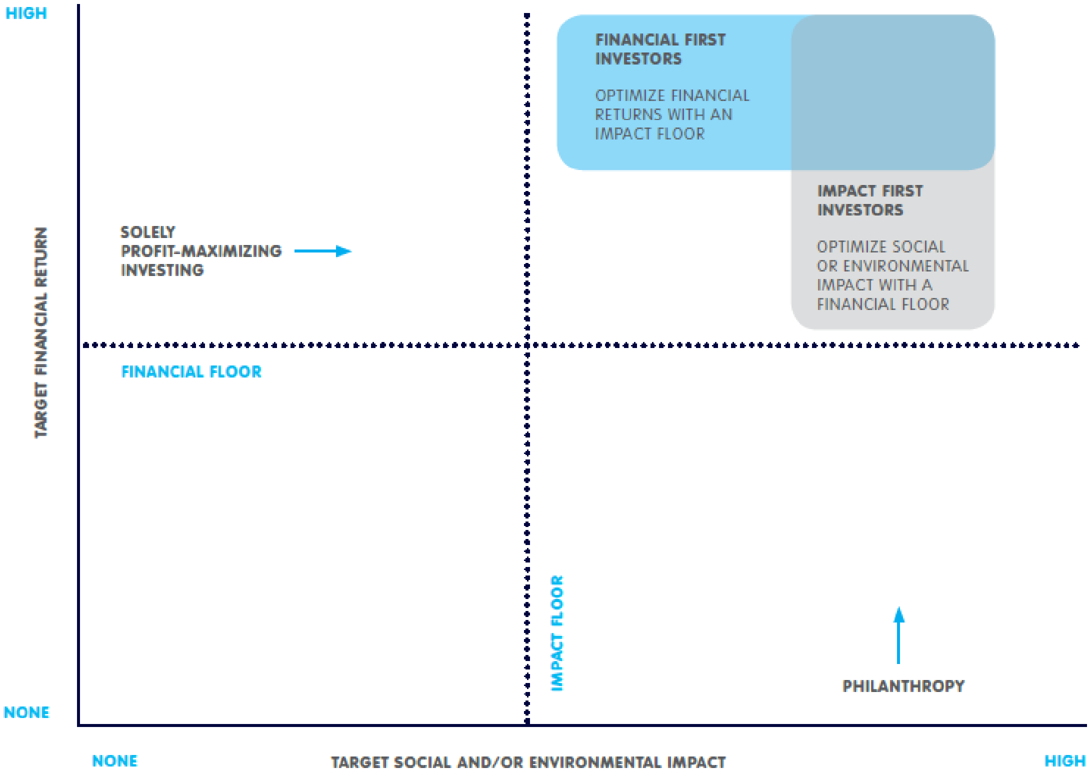


Diversification of return sources

Risk posed by global challenges

SEGMENTS OF IMPACT INVESTORS

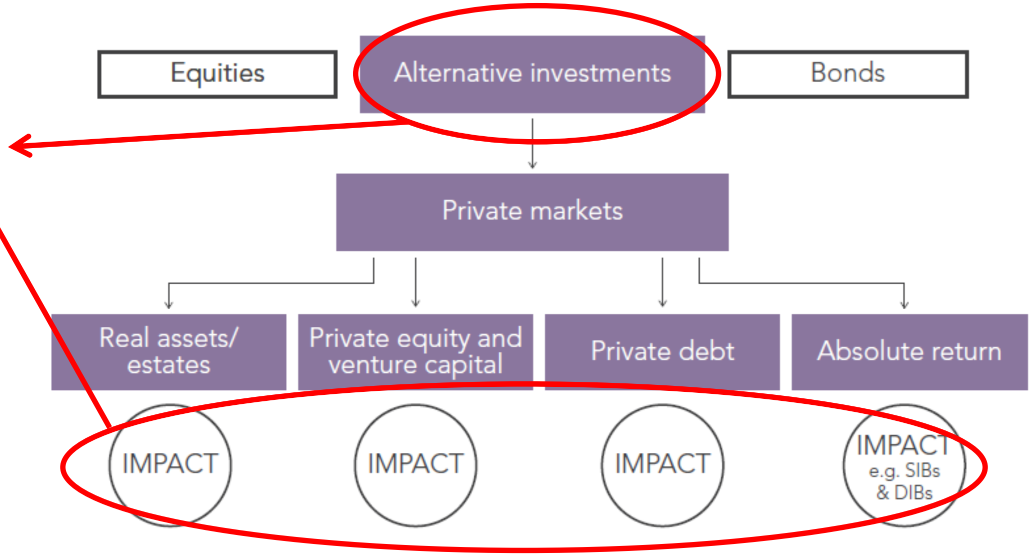
- Most current literature divides impact investors into two main groups, **financial first** and **impact first** investors.
- Financial first investors are defined as investors who aim to maximize financial returns while creating real and measurable impact.
- Impact first investors are defined as investors who seek to maximize social impact while still making some financial return, be those above-or below-risk adjusted market rate returns.



Source: ISIS Research Centre, Sauder School of Business, University of British Columbia

PORTFOLIO CONSTRUCTION CONSIDERATIONS

- Impact investment is usually considered a separate asset class given the specialist skills required to analyse social factors alongside commercial factors, and the infancy of the strategy.
- In the long-term, it is hoped that impact investment will be considered a strategy that can be applied across a variety of asset classes.
- The size of the allocation to impact investments will be a function of an investor's overall portfolio and, in particular, its objectives and remit.

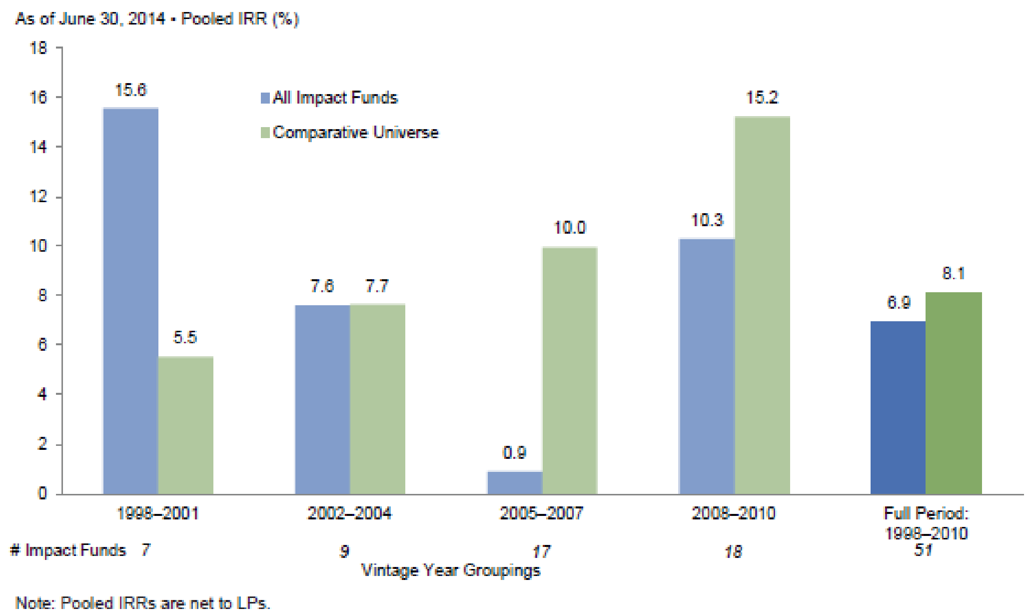


Source: Social Impact Investment Taskforce

PERFORMANCE TRACK RECORD

- GIIN / CA survey provides analysis of 51 funds invested across a range of sectors and geographies, comparing them against non impact investment funds.
- As expected, the funds tend to be small — 27 of the 51 funds are sub-$50m, 2/3 of the funds are less than 10y old.
- Across all vintage years, the pooled IRR for the Impact Investing Benchmark is 6.9% versus 8.1% for funds in the comparative universe.
- However, relative performance differs significantly by vintage year with older vintage funds strongly outperforming the comparative universe.

Performance by Vintage Year, As At 30 June 2014

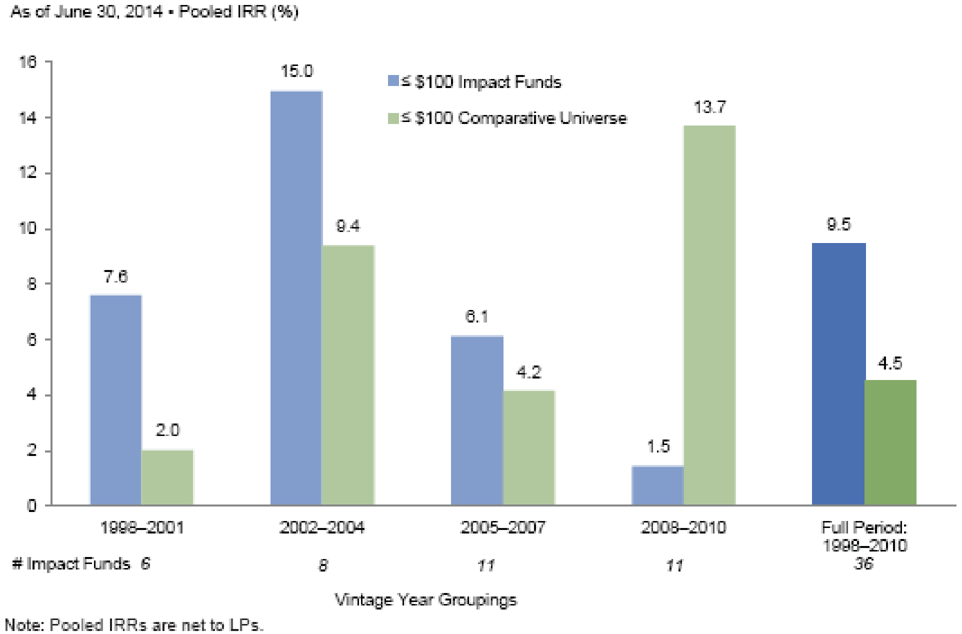


Source: Global Impact Investing Network, Cambridge Associates

PERFORMANCE TRACK RECORD (CONT'D)

- Focusing on the smaller funds, sub-$100m impact funds compared favourably to its comparable funds over the same period.
- Compared to a small sized fund (also possibly invested in a specialised strategy), impact funds have shown to be a more profitable strategy.
- There is also significant geographical diversification between impact funds and non-impact funds, as the former usually concentrates in emerging markets (e.g., sub-Saharan Africa), vs developed markets like Western Europe and North America.

Performance by Vintage Year, sub $100m funds
As At 30 June 2014



Source: Global Impact Investing Network, Cambridge Associates

A MARKET FULL OF POTENTIAL

Blackrock debuts major impact investment fund

World's largest asset manager seeks to mainstream green investment with new Strategic Funds Impact World Equity Fund

Source: Business Green, 14 October 2015

BlackRock Targets Idealistic Millennials With Do-Good Investing

Source: Bloomberg, 12 October 2015

Impact Investing Returns as Good as S&P 500: Wharton

Report shows impact fund managers can pursue their fund's social, environmental missions without sacrificing returns

Source: Think Advisor, 8 October 2015

BUT MANY CHALLENGES REMAIN

Perception that impact investing is unable to deliver appropriate risk-adjusted financial returns

Unquantifiable risk and return metrics, leading to difficulty of success measurement and initial pricing

Lack of education as traditional asset allocation frameworks and skill sets not designed to incorporate these investments

Government support either in promoting social causes through change in regulations or tax incentives

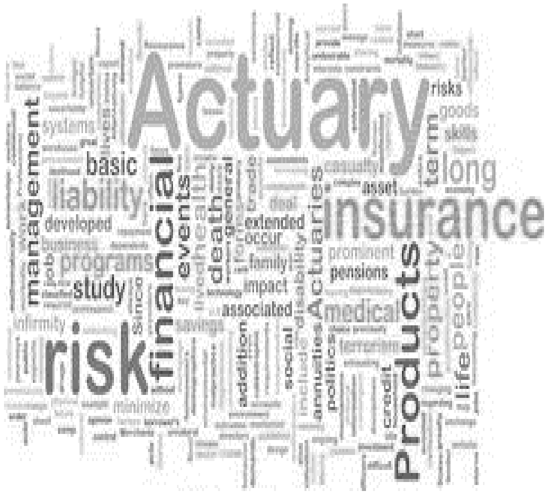
Lack of investable opportunities in terms of sector, target outcomes, geography, size etc.

Perceived **conflict over the use of grant funds** for investment

HOW CAN ACTUARIES GET INVOLVED

The Impact investing field offers great opportunities for Actuaries to apply their unique statistical and mathematical techniques, expertise and knowledge to make a positive difference.

For example, Actuaries can play a role in:



- Investment management – get involved in the research, pricing and management of impact investments
- Risk management - design creative ways to reduce the likelihood or impact of undesirable events occurring
- Consulting – advise and help design the structure of impact investment projects
- Research – particularly by joining an IFoA working party ☺

CASE STUDIES

MICROFINANCE

What is it?

- Provision of small loans to borrowers in developing countries who have traditionally been denied access to financial services by mainstream financial institutions.
- In addition to loans, microfinance institutions also frequently provide associated services such as savings, insurance and payments or money transfers.

How is it structured?

- Repayment records for borrowers has been impressive. Further, it has proven possible to deliver the service at a viable cost.
- The two main mechanisms used are (1) relationship-based banking for individual entrepreneurs and small businesses; and (2) group-based models, where several entrepreneurs come together to apply for loans and other services as a group.

What are the benefits?

- **Many millions of borrowers lifted out of poverty!**
- Various other positive social benefits including empowerment of women, extension of education levels, improved health and welfare, job creation.

CASE STUDY #1 – GRAMEEN BANK

- Founded in Bangladesh in 1976 by Prof. Muhummad Yunus to lend small amounts of money to basket weavers for the financing of raw materials as part of a research project with University of Chittagong.
- Proving successful, Yunus then expanded services to other regions with the support from the Bangladesh Central Bank.
- Methods applied by Grameen Bank have been emulated around the world. There are now more than 10,000 microfinance institutions globally, serving an estimated of 100 million people with $25 billion of loans.
- The global number of potential micro-borrowers is estimated to be 1 billion, with a total loan demand of $250 billion.

Grameen Bank

Community development bank which makes small loans to impoverished villages without requiring collateral.

Group lending methodology, loans must be used to generate income. Borrowers must maintain certain social principles.

Today, Grameen Bank has 2,422 branches in 78,101 villages and employs 22,924 people. Its loan recovery rate is over 98% and it consistently turns a profit.

SOCIAL IMPACT BONDS

What are they?

- Also known as a "Pay for Success Bond" or a "Social Benefit Bond"
- Contract with the public sector in which investors pay for the project at the start, and then receive payments based on the results achieved by the project

How are they structured?

- Investment is received from socially-motivated investors
- The investment is used to pay for a range of interventions to improve social outcomes
- The investor receives payment (i.e. repayment of capital plus a financial return) from the government based on achievement of certain performance targets (i.e. if social outcomes improves)
- If the desired social outcome is not achieved, the public sector does not pay the investor (i.e. the investor loses all of its capital)

What are the benefits?

- Provide alternative sources of funding for social outcomes
- Removes the risk of failure from the public sector
- Investors tend to be those with a strong focus on the social cause (i.e. charitable trusts) with an understanding of the interventions proposed

CASE STUDY #2 – PETERBOROUGH PRISON

- First social impact bond launched in 2011.
- The first phase of the scheme did not reduce the number of reconvictions sufficiently to trigger payments to investors (relapse rate of 8.4% vs. 10% hurdle rate)
- Third phase of the scheme cancelled due to planned replacement by a new national programme – Transforming Rehabilitation.
- Highlight challenges prevalent:

❖Measuring outcomes and pricing appropriately

❖Sensitivity to government policy shifts

❖Infancy of investment class leading to “teething” issues

Peterborough Bond Details

To reduce reoffending by short sentenced prisoners released from Peterborough prison

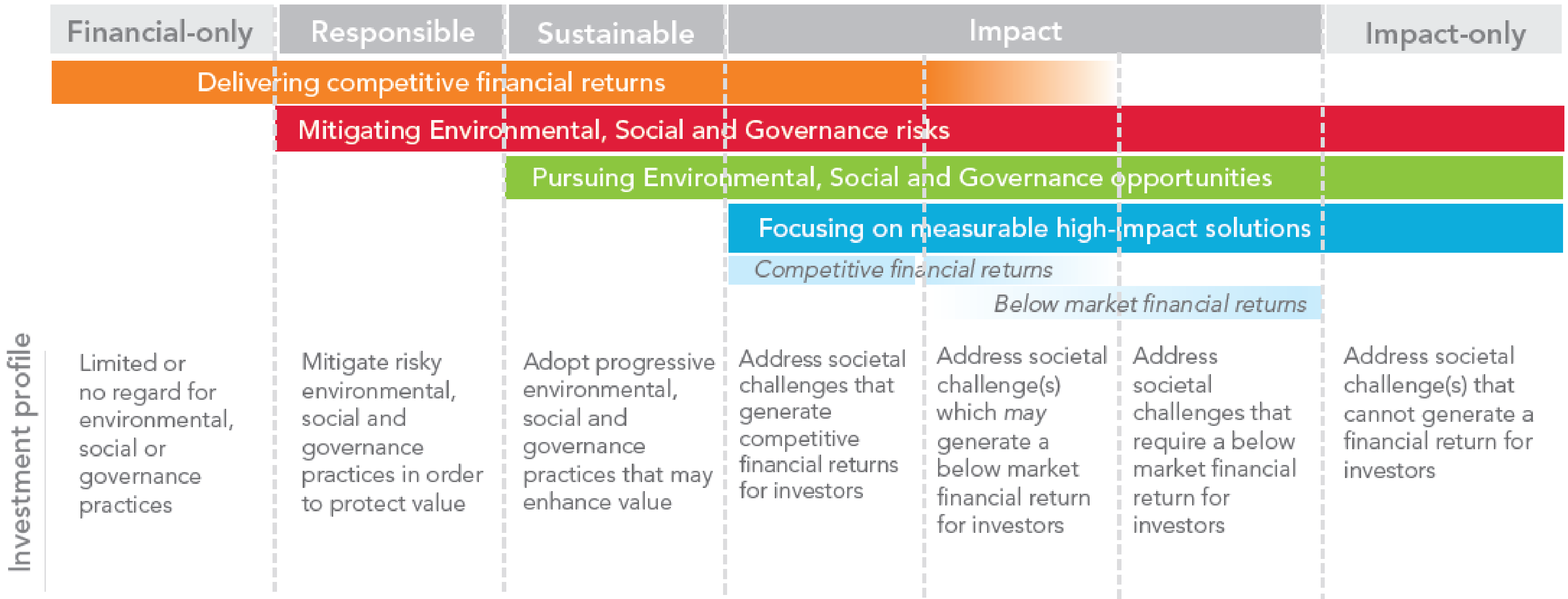
Raised £5 million from 17 investors

The relapse rates of prisoners released from Peterborough was compared to a control group over six years.

If Peterborough's relapse rates are at least 7.5% below the control group across all cohorts, investors receive an increasing return (capped at 13% p.a.), proportional to the difference in relapse rates.

APPENDIX

SPECTRUM OF CAPITAL



Source: Bridges Ventures

INVESTMENT ECOSYSTEM

Demand | **Supply**

Impact-seeking purchasers	Impact-driven organisations	Forms of finance	Channels of impact capital	Sources of impact capital
Government procurement of services	Grant-reliant organisations (e.g. charities)	Secured loans	Social banks	Government/ EU investment
Government as commissioners of outcomes	Grant-funded organisations with trading activities	Unsecured loans	Community development finance institutions	Social investment wholesaler
Foundations as commissioners of outcomes	Social enterprises/ profit-constrained organisations	Charity bonds	Impact investment fund managers	Charitable trusts and foundations
Socially minded consumers of goods and services	Profit with purpose businesses	Social impact bonds	Impact investment intermediaries	Local funds
Socially minded corporate purchasers of goods and services	Businesses setting significant outcomes objectives	Quasi equity	Crowd-funding platforms	Institutional investors & banks
		Equity		Corporates
		Grants		High net worth individuals
				Mass retail

Source: Social Impact Investment Taskforce