From Proof of Concept to Prototype

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Elena Andonova joined Isis Enterprise in October of 2009 as a fellow from the Said Business School at Oxford University, where she had completed her MBA. Before coming to Oxford, Elena spent several years working for the capital markets division of Lehman Brothers in London, involved in negotiating and trading of fixed income products. Elena has experience in macroeconomics and corporate finance and graduated from the American University in Bulgaria with a double major in Economics and Business Administration. At Isis, Elena has been involved in numerous capacity building projects in Eastern Europe, Latin America and the UK. She has also been engaged in fundraising activities for start-ups and preparing business plans for new companies. Her interest is in policy making and social innovation. Elena is also Financial Services Authority authorised.
Introduction to PoC

PoC in TTOs

01

02

Oxford PoC Funds

Successfully Funded

03

04

Value to Academic and Institution

05

Lessons Learnt

06
Proof of Concept

“Valley of Death”

Research Funds

Investment

Proof of Concept
Current Proof of Concept Activity

Idea/Discovery → Proof of Concept → Technology Development → Seed Round → Series A → Series B

Research Grants → PoC → Grants → Venture Funds → Institutional Equity → Angels

Public Sector? Private Sector?

General unavailability of private investments
High transaction costs
High risk
Difficult to evaluate opportunity
Proof of Concept in TTOs

TTO PoC Support

Mentorship  IP Protection  Business Planning  Industry Insight  Team Construction

Market Failure?

50% Commercialised
Proof of Concept in Oxford

**UCSF**

- **University Challenge Seed Fund**
- 1999
- £4million

- **Evergreen Fund**
- Contributors: Wellcome Trust, Gatsby Charitable Foundation, HM Government, University of Oxford

**Primary focus**: Exploitation of science and engineering research outcomes

**OIF**

- **Oxford Invention Fund**
- 2010
- £1.5million

- **Evergreen Fund**
- Contributors: Donations

**Primary focus**: To support new ideas, innovation and enterprise in Oxford
Proof of Concept in Oxford

Award Value
£11m
£16m applied for

212 Awards
23 FY14/15

IUIF/OIF 63
UCSF 149

50% commercialised
87% of all awards converted into equity are still live
Applying to the Funds

1. First contact – TTM
   - Patenting
   - Funding Need
   - First Draft Business Plan
2. Application form
   - Project Summary
   - Investment Proposal
3. Review before final submission
4. Board Review
5. Decision
Investment Types

- Pre-patent research
- Reduction to practice
- Commercial demonstration or prototype
- Business planning support
- Spin-out company
Evaluation Process

- Board review papers for 2 weeks
- 15 minute presentation to the Board (mix of academics and industry experts)
- 15 Q&A
- Yes/No on the spot
Investment Types

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Successful Applications

1. Driven Team
2. Commercial Traction
3. Scalable
4. Continued Competitive Advantage

isis-innovation.com
Oxford Science Innovations

- Provides capital and scaling expertise to IP driven businesses from Oxfordshire
- £300 m under management
- MPLD and Medical Sciences
- 6 investors in total plus the University*
- RoI basis for all stakeholders
- Long term investment focus

*Invesco Asset Management Limited, IP Group plc, Lansdowne Partners (UK) LLP, Oxford University Endowment Fund, the Wellcome Trust and Woodford Investment Management LLP.
Value of Oxford PoC of Funding

**Academic**

- Easy Application
- Do not have to be incorporated (avoid associated costs)
- Little pressure for ROI
- Do not have to agree valuation
- When incorporated can show support from a significant shareholder

**Institution**

**Financial Return:** February 2014, Natural Motion acquired by Zynga for more than $527m (x73 from first round investment).

**Impact Stories:** “Commercialisation activity undertaken by Isis... contributed more than £0.4 billion GVA\(^1\) to the global economy in 2012/13 and supported almost 5,000 jobs.
Diagnosing multiple sclerosis

An NMR metabolomics test for the diagnosis and staging of Multiple Sclerosis

Oxford researchers have identified a blood test to diagnose and track the progress of multiple sclerosis, a disease for which there is no reliable biomarker. By using metabolomic analysis of serum NMR spectra from MS patients, they have been able to generate validated predictive models that separate each of the MS patient groups (RR, SP or PP) from healthy controls as well as distinguishing RR from SP patients. For the models, the majority of metabolites in the samples eliciting separations were identified.

Isis seed funds are being used to generate the clinical evidence needed to secure commercial investment.
Key Lessons – Starting a PoC Fund

**Do**
- Have a simple application procedure
- Have a plan and contacts for securing follow on funds
- Set up the fund to invest in projects as well as companies
- Capture returns from licencing as well as spin-outs
- Have a clear and transparent evaluation process

**Don’t**
- Apply a one-size-fits-all investment criteria, such as a requirement that a company must achieve revenue by the end of year one.
- Spread available resources too thin
- Deviate from the funds’ agreed investment scope and project selection criteria
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