



From Proof of Concept to Prototype

Elena Andonova, MBA

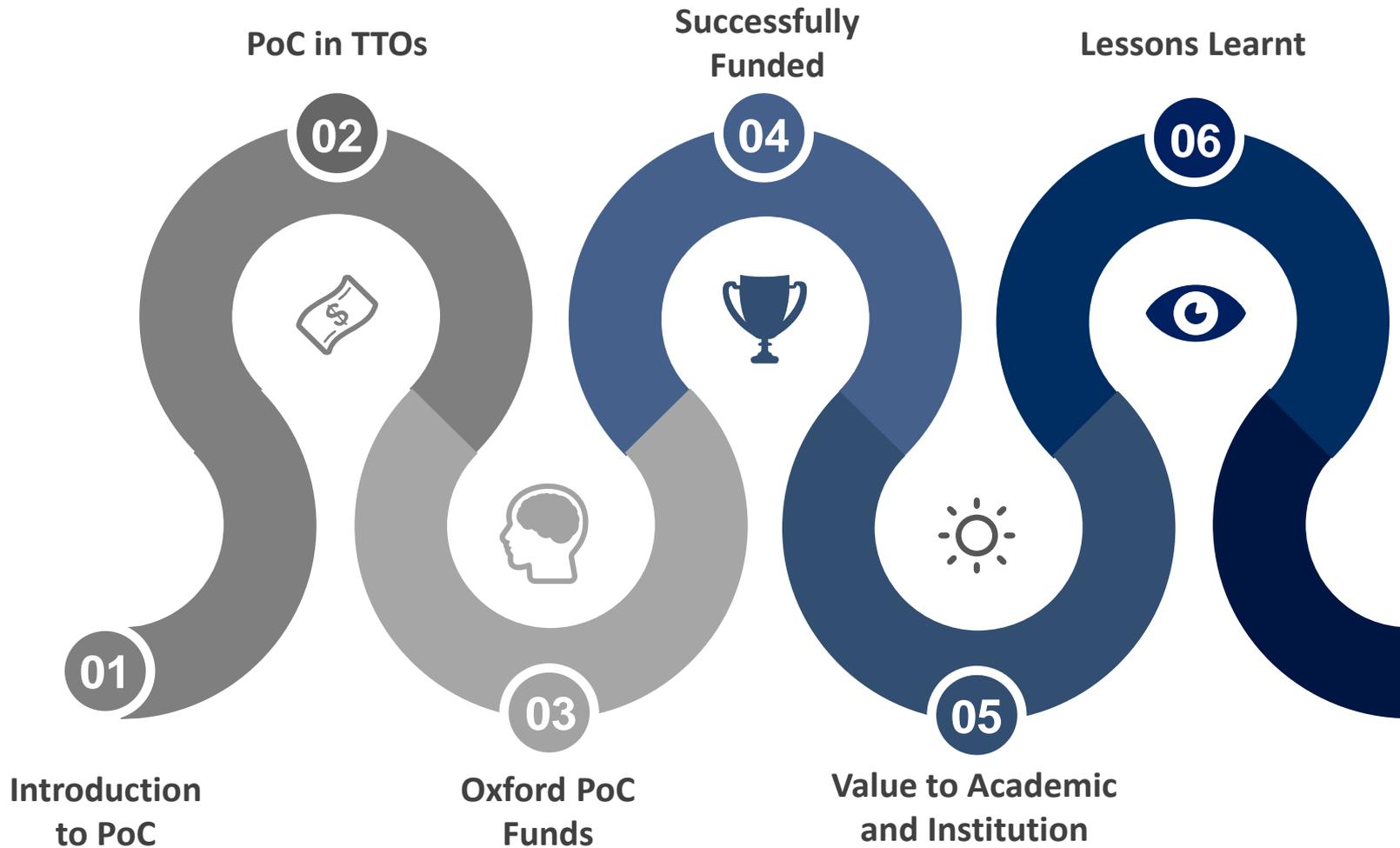
September, 14th Budapest, Hungary

Elena Andonova, MBA



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.

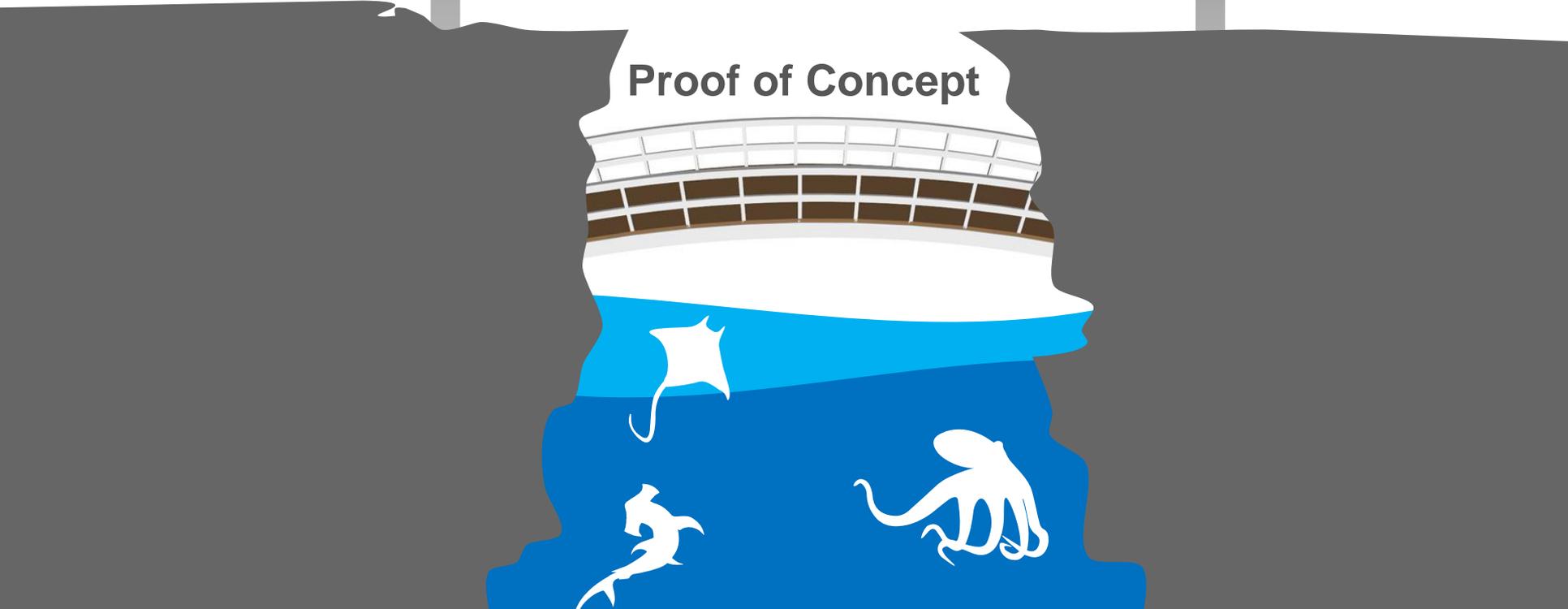
Content





Proof of Concept

“Valley of Death”



Current Proof of Concept Activity



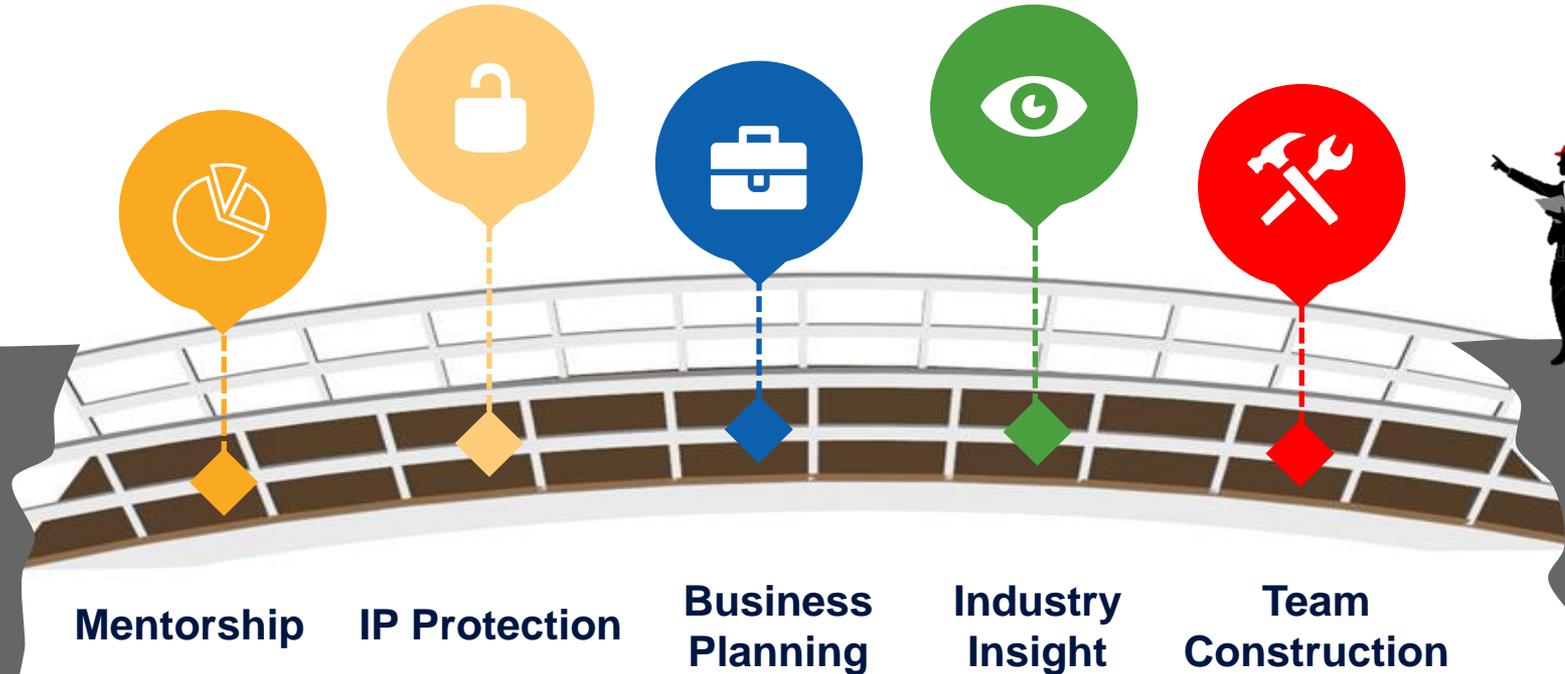
Public Sector?

Private Sector?

General unavailability of private investments
High transaction costs
High risk
Difficult to evaluate opportunity

Proof of Concept in TTOs

TTO PoC Support



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



IUIF/OIF 63

UCSF 149

50%

commercialised

87% of all awards
converted into equity are
still live

Applying to the Funds



**First contact
– TTM**

- **Patenting**
- **Funding Need**
- **First Draft Business Plan**

Application form

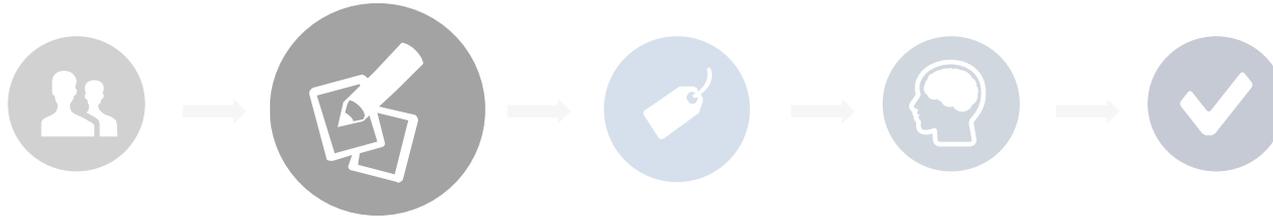
- **Project Summary**
- **Investment Proposal**

**Review before
final submission**

Board Review

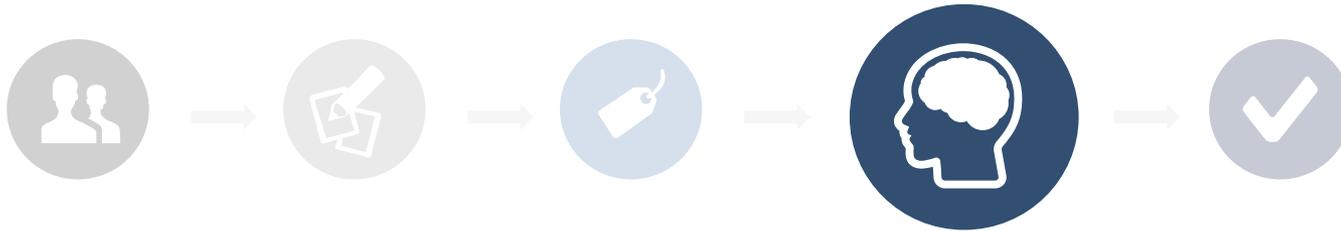
Decision

Investment Types



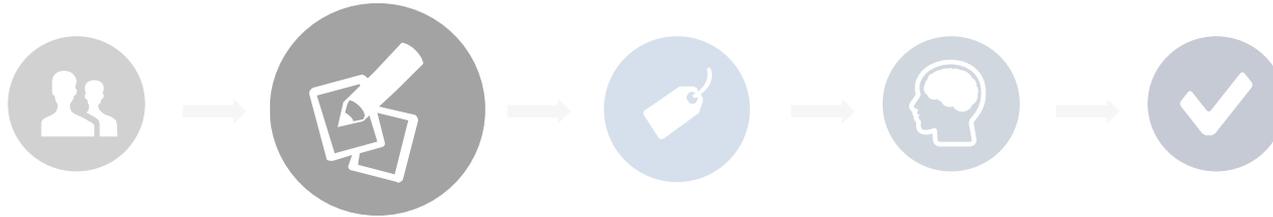
- **Pre-patent research**
- **Reduction to practice**
- **Commercial demonstration or prototype**
- **Business planning support**
- **Spin-out company**

Evaluation Process



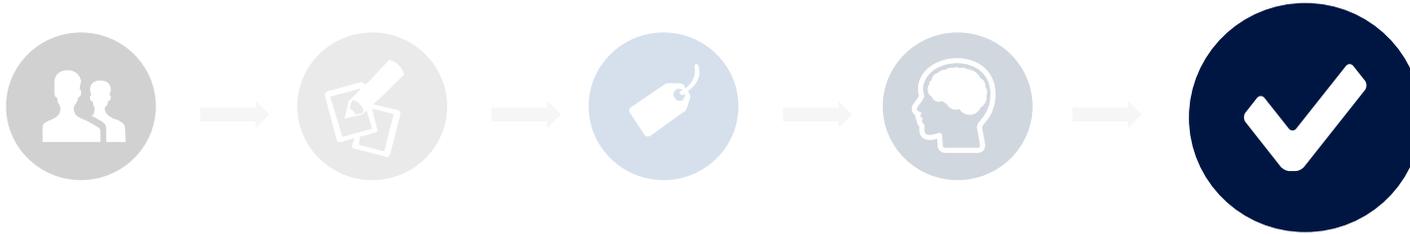
- **Board review papers for 2 weeks**
- **15 minute presentation to the Board (mix of academics and industry experts)**
- **15 Q&A**
- **Yes/No on the spot**

Investment Types



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

Successful Applications



**Driven
Team**



**Commercial
Traction**

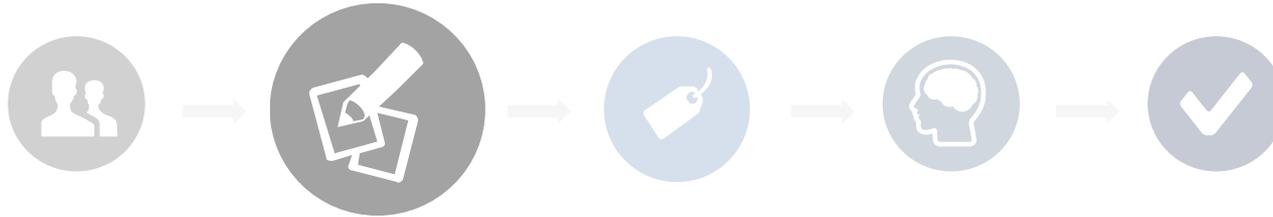


Scalable



**Continued
Competitive
Advantage**

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***
- **Rol 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 GVA¹** to the global economy in 2012/13 and supported almost **5,000 jobs**.”



AUROX
PERSONAL CONFOCAL

Celoxica

Cmed

cnBio innovations
A member of **cn innovations**

CRYSSALIN
LIMITED

CYTOX



DESIGN CARE MATERIALS

evotec

ard Asymmetry
onal, merged with
iosystems to form
evotec OAI

FUEL3D

GENOMICS LTD

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Harnessing the power of T cell measurement

inhibOx

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Perspectum Diagnostics

Run3D

salvinda

summit

AS
delta

ucb Inspired by patients. Driven by science.
Oxford Glycosciences plc, acquired by Celltech plc and later UCB SA

VELOCYS

YASA MOTORS

OxCEPT

OXITEC

OxSyBi

MS Diagnostics

Diagnosing multiple sclerosis

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

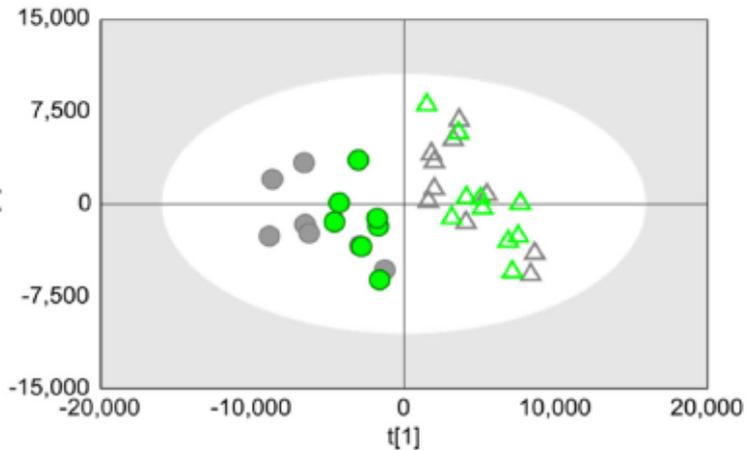
Oxford researchers have identified a blood test to diagnose and track the progress of multiple sclerosis, a disease for which there is no reliable biomarker. By using metabolomic analysis of serum NMR spectra from MS patients, they have been able to generate validated predictive models that separate 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.

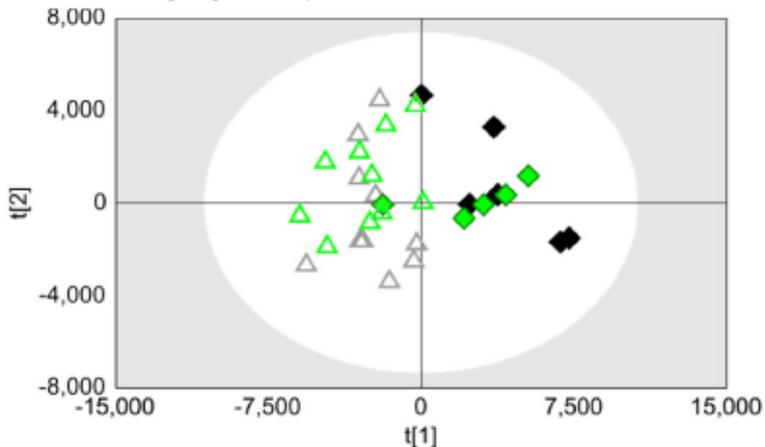


Prof. Nicola Sibson

Diagnosing Multiple Sclerosis



Staging Multiple Sclerosis





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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Innovation Ecosystem
Development

Technology & Market
Due Diligence

Technology Scouting

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