



# IP Commercialisation Options

Elena Andonova, MBA

September 14<sup>th</sup>, 2015, 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.



**Winner 'Technology Transfer Unit of the Year'**



Global University Venturing 2014

© Copyright 2015 Isis Innovation Ltd.



# Isis Innovation Ltd

A profitable company 100% owned by the University of Oxford



Oxford Technology Transfer  
IP, Patents, Licences, Spin-outs,  
Material Sales, Outcome Questionnaires, Seed Funds,  
Isis Angels Network, Isis Software Incubator, Oxford  
University Hospitals NHS Trust



Oxford Expertise  
Consulting, Services



Isis Consulting Business  
Technology Transfer and Innovation  
Management



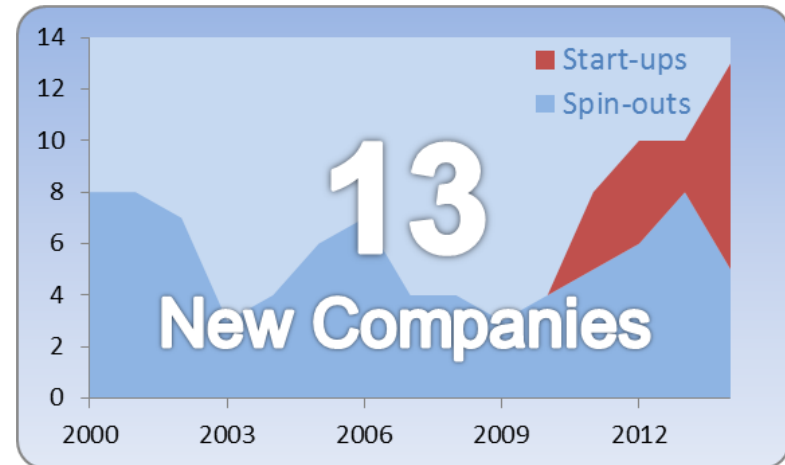
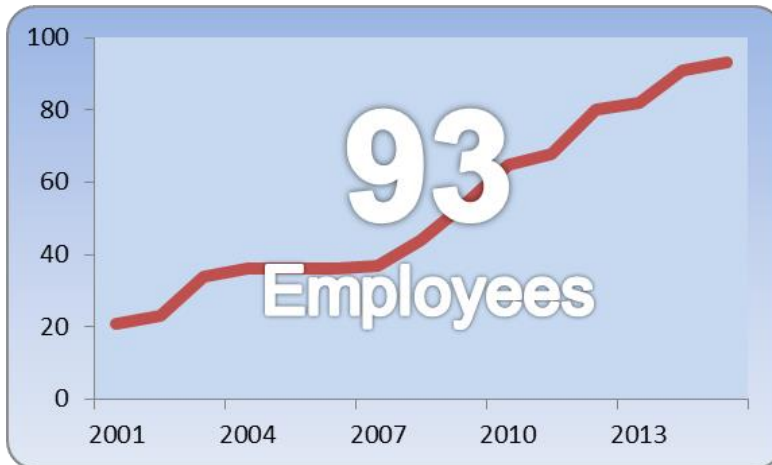
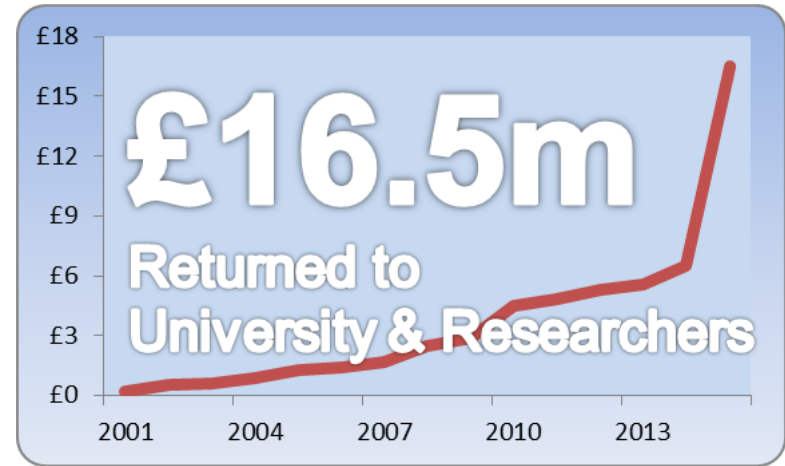
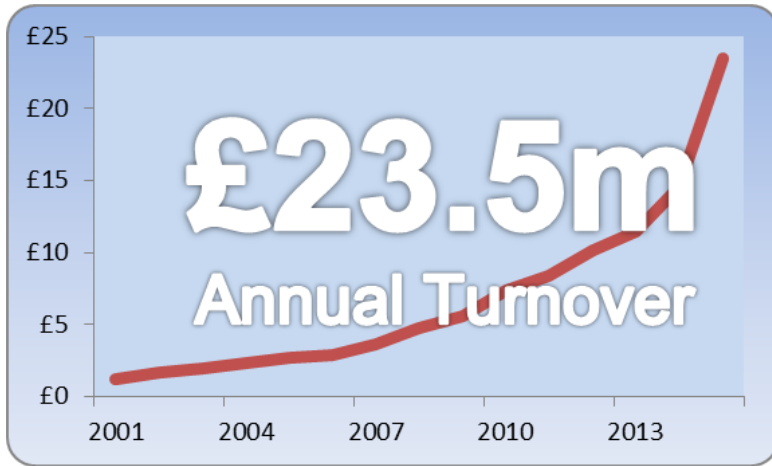
Winner Technology Transfer Unit of the Year'  
@isisinnovation

Global University Venturing 2014

© Copyright 2015 Isis Innovation Ltd.



# Isis Innovation, year-ending March 2015



NB Unaudited figures

Winner 'Technology Transfer Unit of the Year'



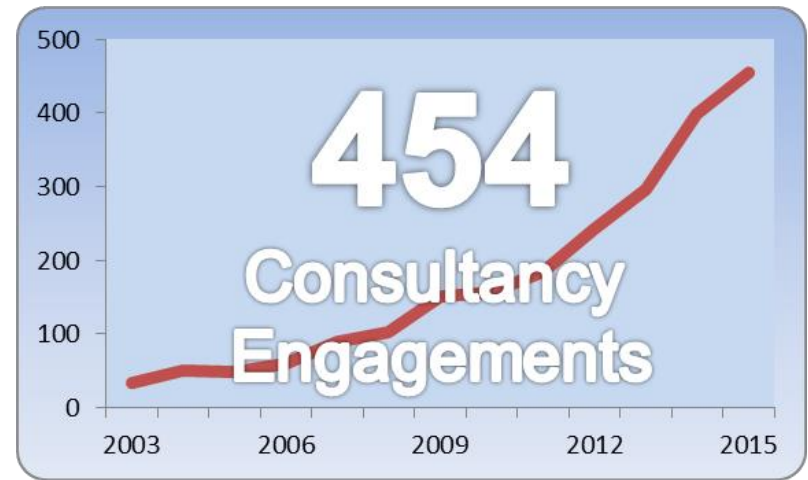
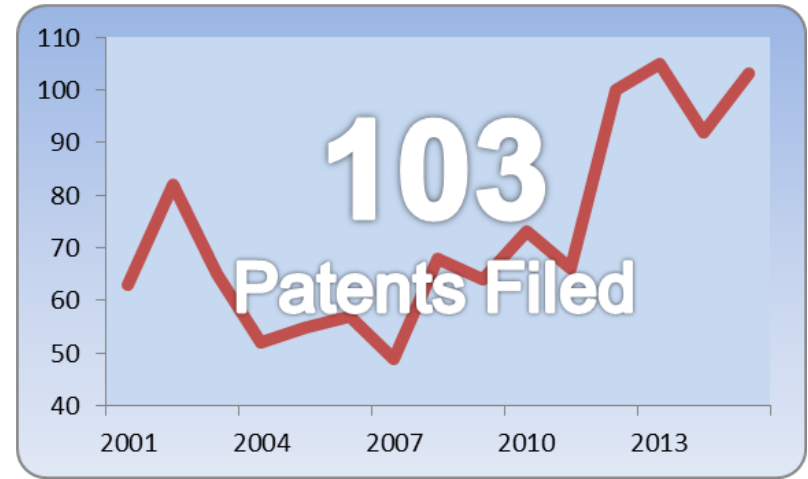
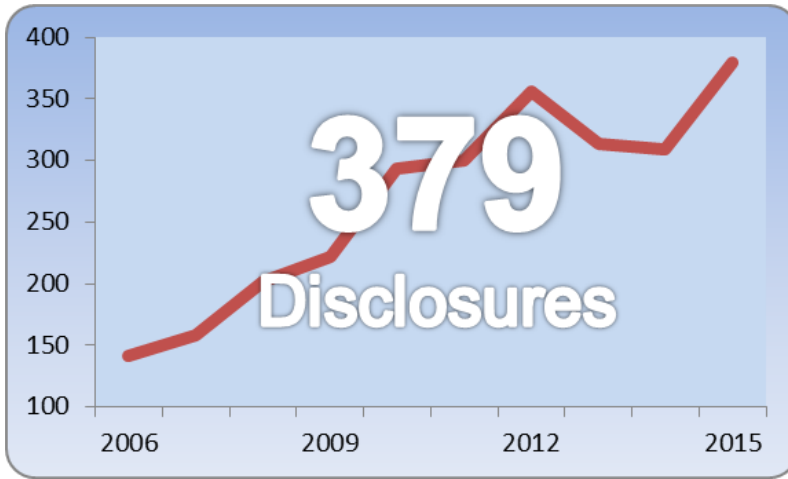
Global University Venturing 2014



© Copyright 2015 Isis Innovation Ltd.



# Isis Innovation, year-ending March 2015



Winner 'Technology Transfer Unit of the Year'



Global University Venturing 2014

© Copyright 2015 Isis Innovation Ltd.



# Transfer of Intellectual Property Rights

## Assignment of intellectual property rights

*Inside the University*

*Outside the University*

Research funding source

Government

Charities

Industry

**Research Services**

Includes: IP Rights Management Team  
80 Staff  
85% Graduates  
33% Post grad degrees

**Isis Innovation**

>90 staff  
75% Graduates  
49% Science doctorates

Route to market

Spin-outs

Consulting

Licences

Winner 'Technology Transfer Unit of the Year'



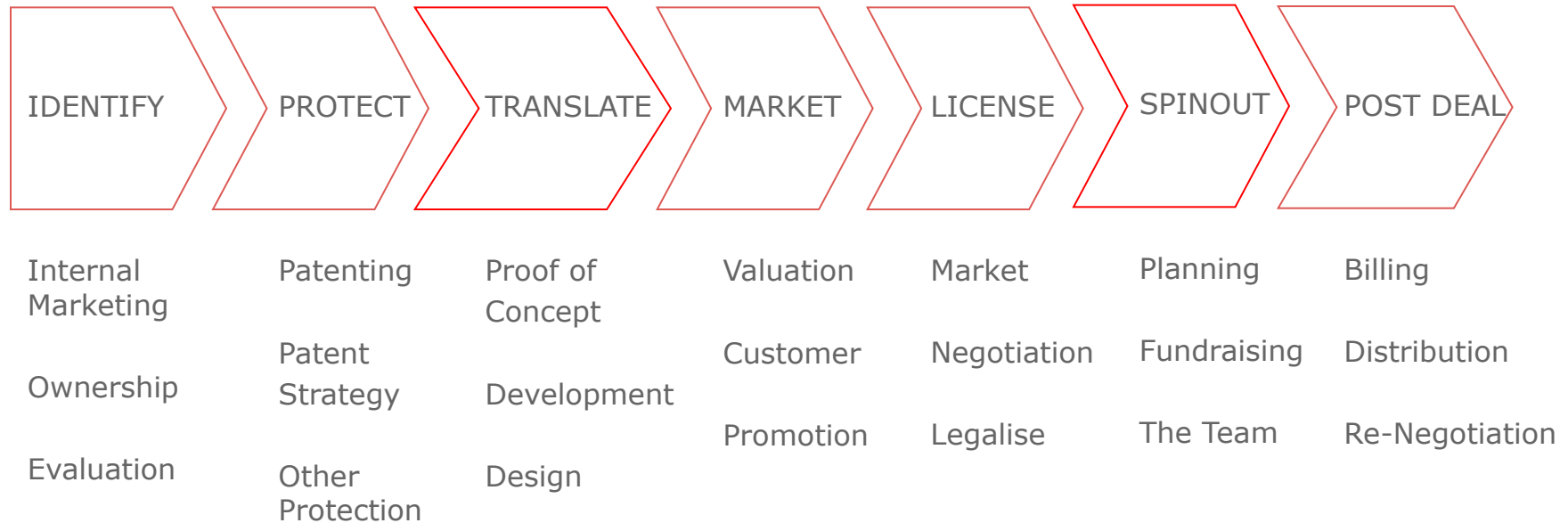
Global University Venturing 2014

© Copyright 2015 Isis Innovation Ltd.

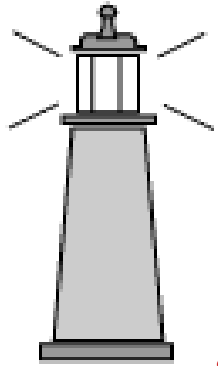


# Methods & Resources

## Delivering Technology Transfer



# Identifying IP - Models



- Lighthouse Model v  
- continuously raise awareness;  
encourage researchers to come to  
you

## Technology Audit

- a formal systematic review involving  
interviews with all academics

- Disadvantages of Technology Audit
  - Researchers feel obliged to disclose: but have little desire to participate later
  - A snapshot - researchers have a really good idea the week after the audit
- All Isis Projects start with an approach from an academic
  - We make them welcome and they participate in all decisions but **they** have to decide to start any new project
  - We devote much effort to **internal marketing** to researchers

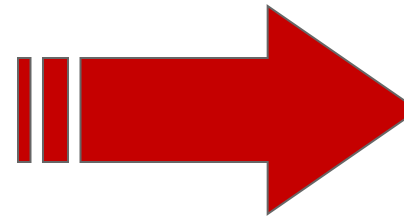


# Invention Disclosure

- A researcher comes to Isis
- Isis Project Manager (PM) is assigned
- Isis gives out the “Patents & Licensing Booklet”\*
- Isis gives out IP due diligence forms
- Isis creates new project files and new entries on the Isis database
- Isis PM works with the researcher to refine the invention disclosure

\*also available at [www.isis-innovation.com](http://www.isis-innovation.com)

- Initial assessment
  - Is it an invention or just a discovery?
  - Is there a product and a market?
  - Is it likely to belong to Isis?



# Disclosure: What is your approach

- What is the best approach?
- Distribution of Disclosure forms
  - Web/ on-line
  - On request to TTO
  - Under supervision of TTO
- Inventor interviews
- Follow up to fill the gaps and obtain more information
- Isis Example Forms
  - Invention Record – to help make patenting decisions
  - IP 1. Due Diligence
  - IP 2. Royalty Distributions



**Winner 'Technology Transfer Unit of the Year'**



Global University Venturing 2014

© Copyright 2015 Isis Innovation Ltd.



## INVENTION RECORD

Project number: (for Isis use)

The invention record is a written description of your invention. It fulfils several important purposes:

- It helps Isis to assess whether the work is patentable;
- It helps the patent attorney to prepare the draft patent, if Isis decides to proceed with patenting;
- It helps give Isis and the University's Intellectual Property Due Diligence team an early indication as to the University's ownership of your invention, and identify issues which will need to be addressed downstream; and
- It provides an important record of the date of invention, which can become important in future patent process.

**IMPORTANT:** Discussions between you and Isis about your invention are confidential. To avoid any inadvertent public disclosure of your invention please consider all discussions about the invention confidential. Please use Confidential Disclosure Agreements to protect discussions with anyone outside the University. Please ask Isis for advice.

Please answer the following questions, either on these two pages or on separate sheets.

1. Descriptive Title of the Invention.

Please type here

2. Who was involved? Please tell us for each individual who contributed, invented or authored (if software):

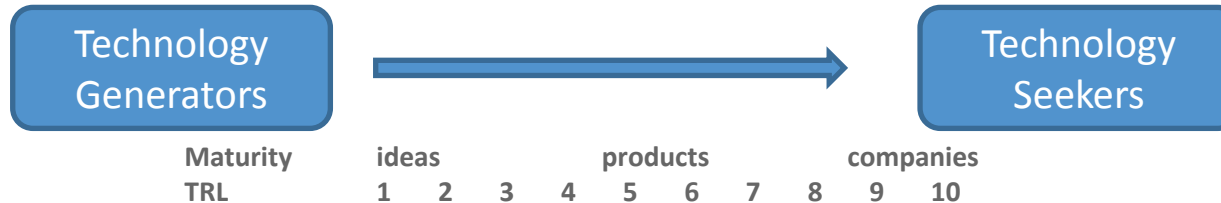
- a. Their names and if any are foreign nationals;
- b. Who their employer is, and if this is not Oxford, are any contracts or arrangements in place?
- c. What they contributed to the development of the technology (e.g. came up with the original idea; designed experiments; carried out experimental work; wrote code)

Name	Nationality	Employer(s)	What did this person contribute?

**IMPORTANT NOTE:** Inventors must be legal inventors according to the definition in patent law (please ask your Isis Technology Transfer Manager for guidance if necessary). Software Authors are those who actually wrote the code and thereby created the copyright. The University also has a mechanism for rewarding contributors who are not inventors or authors but who have made a significant and identifiable contribution to the intellectual property, and revenue distribution to all individuals is dealt with through the IP2 form.



# Translate - Proof of Concept



- Some (but not all) university inventions are early
- Publications are typically the focus of academic research
  - Sufficient results for a paper
  - Maybe enough data for a patent application

However...

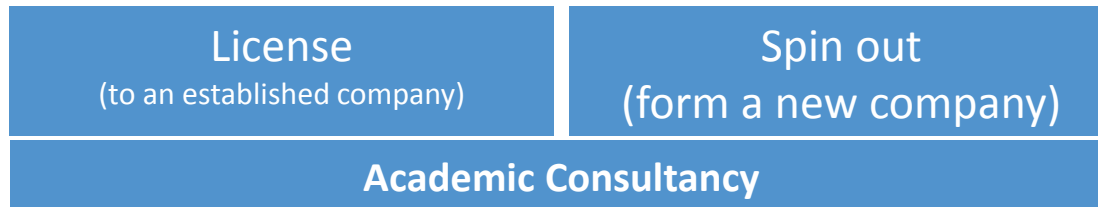
- Potential 'customers' often want more evidence
- Maybe require more data to support a patent application
- Translation funding is often required to bridge the 'technology readiness gap'
  - Proof-of-concept, translation or early-stage seed funding

# From IP Strategy to Marketing Strategy

- Market Analysis to identify opportunities for your technology
  - Field of use
  - Exclusivity
  - Strength and breadth of patent
  - Geographic limitations
  - One market or multiple markets?
  - Single technology or bundle of technologies?

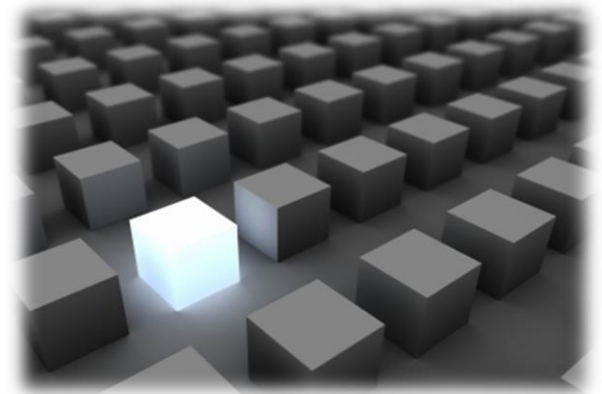


What is the best route to market



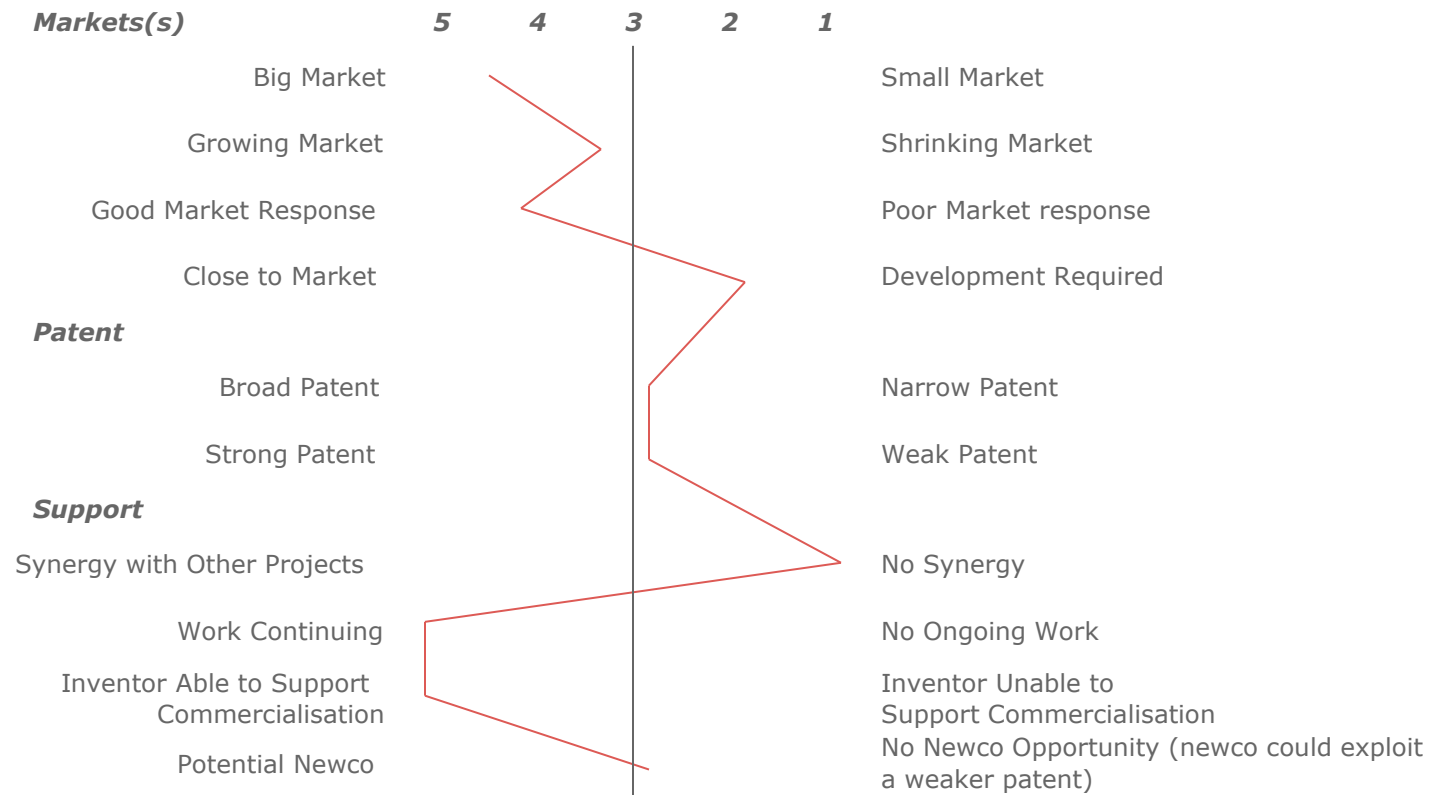
# Marketing Strategy - Define the Product and Potential Market

- What is the product?
  - Commercial applications?
  - Perceived advantages and benefits?
  - What are the Unique Selling Points (USPs) or competitive advantage of the product?
- What is the market?
  - One Market or multiple markets?



# Decision Making Tool

- Project decision sheet



# Commercial Routes for Academic Innovation

- **Licensing**
- Creating a new venture / company / product line using an organisation's intellectual property (**Spin-out**)
- Creating a company not from within the organisation where there is no intellectual property, or you own the IP (**Start-up**)
- **Joint venture**
- **Consultancy**



# Route to Market: Licensing

- Licence agreement transfers the IPR from licensor to licensee
- Initial marketing campaign includes sending non-confidential summary to targeted companies
- Advertise:
  - On the TTO web site
  - Technology transfer databases (Innovation Relay Centres)
- If there is interest from a company, a CDA should be put in place
- Send a confidential information package to the company for review.

# Route to Market: Licensing

- Isis currently manages 2,333 Patents & Patent Applications; and 330 active licensing deals
- Technologies marketed to Oxford Innovation Society Members and then other companies
- Licence partners selected on:
  - Resources and intent to develop technology to market
  - In healthcare, awareness of access of final products to developing countries
- Exclusive & Non-exclusive, Geographical Territory and Technology Field controls
- Fees, milestones, running royalties appropriate to technology and marketplace
- Royalties:
  - Patent budget £3.1m per annum
  - Isis pays patent costs & recovers these from royalties

Total net revenue	Researchers personally	University General Fund	Department Funds	Isis Innovation
To £72K	60%	10%*	0%	30%
£72K to £720K	31.5%	21%	17.5%	30%
Over £720K	15.75%	28%	26.25%	30%

**Winner 'Technology Transfer Unit of the Year'**

\* pays National Insurance employment tax

Global University Venturing 2014

© Copyright 2015 Isis Innovation Ltd.



# Why Spin-out?

- At Isis we licence almost everything so why spin-out?
  - Can you build a new company around the technology to realise short, medium and long term revenue
  - Often a completely new technology
  - A portfolio of IP
  - Possibly needing long-term development
  - What does the academic want?
    - Are they keen?
    - Are they secure in the university?



Winner 'Technology Transfer Unit of the Year'



Global University Venturing 2014

© Copyright 2015 Isis Innovation Ltd.



# Spinout Disclosure

- A researcher comes to Isis
- Isis Project Manager (PM) is assigned
- Isis gives out the “Spinout Company Booklet”\*
- Isis creates new project files and new entries on the Isis database
- Isis and the researcher identify any new intellectual property projects
- Isis PM works with the researcher to refine the business idea

\*also available at [www.isis-innovation.com](http://www.isis-innovation.com)



Winner 'Technology Transfer Unit of the Year'



Global University Venturing 2014

© Copyright 2015 Isis Innovation Ltd.



# Route to Market: Spinout

- Start a New Company to bring the product or idea to market
- University may take Equity
- The amount of equity may be influenced by the licensing of the IPR to the new company
- The market evaluation and route to market will form the heart of the Business Plan
- The Business Plan will be used to recruit commercial management and secure Equity (Venture) Capital

# Commercialising Non Patent Inventions

- PDQ-39
- Oxford Health Outcomes Questionnaires developed at the University's Health Services Research Unit
- PDQ-39 is a "Gold-standard" measure of health status for Parkinson's Disease
  - Widely validated and translated into over fifty languages
  - Isis has licensed the questionnaire to 17 pharmaceutical companies for use in clinical trials
- Knee, Hip, Shoulder and Elbow scores also licensed



ISIS OUTCOMES PATIENT REPORTED OUTCOME MEASURES FROM THE UNIVERSITY OF OXFORD

ISIS OUTCOMES an activity within Technology Transfer at Isis Innovation Ltd the technology transfer company of the University of Oxford

PATIENT REPORTED OUTCOME MEASURES FROM THE UNIVERSITY OF OXFORD

Isis Outcomes provides access to high quality Patient Reported Outcome (PRO) measures developed at the University of Oxford. We provide licences for some of the most respected and widely deployed PROs used by the Pharmaceutical Industry and healthcare providers. Isis Outcomes can also provide expert consultancy advice on the development and psychometric validation of new PROs, as well as the use of our own and other PROs.

Using the PROs available from Isis Licences to use these PROs can be obtained by contacting Isis Innovation at:

- Web: Licence Request Form »
- Email: healthoutcomes@isis.ox.ac.uk
- Tel: +44 (0)1865 280857

Advice on the use of, or interpretation of data from the PROs is available on request. Alternatively, if you have a requirement for a PRO not covered by our current portfolio, then please do ask the Isis Outcomes team for advice.

**PROs Available**

- ✓ Myocardial Infarction Dimensional Assessment Scale (MIDAS)
- ✓ Parkinson's Disease (PDQ-39 & PDQ-8)
- ✓ Amyotrophic Lateral Sclerosis / Motor Neurone (ALSAQ-40 & ALSAQ-5)

**Orthopaedics**

- ✓ Oxford Knee Score (OKS)
- ✓ Oxford Hip Score (OHS)
- ✓ Oxford Shoulder Score (OSS)
- ✓ Oxford Shoulder Instability Score (OSIS)
- ✓ Oxford Elbow Score (OES)
- ✓ Oxford Ankle Foot Questionnaire for Children (OxAFQ-C)

**Psychiatry**

- ✓ The Oxford Depression Questionnaire (ODQ)

**Women's Health**

**Latest News**

- New User Manual for the Myocardial Infarction Dimensional Assessment Scale (MIDAS)
- New User Manuals for the Oxford Hip and Knee Score
- PDQ recommended in a Review of Parkinson's Disease Health-Related Quality-Of-Life Measures

Subscribe to Isis Outcomes News with our RSS Feed!

Organisations Using Isis Outcomes PROs

- NHS
- NOVARTIS
- gsk
- Boehringer Ingelheim



Winner 'Technology Transfer Unit of the Year'



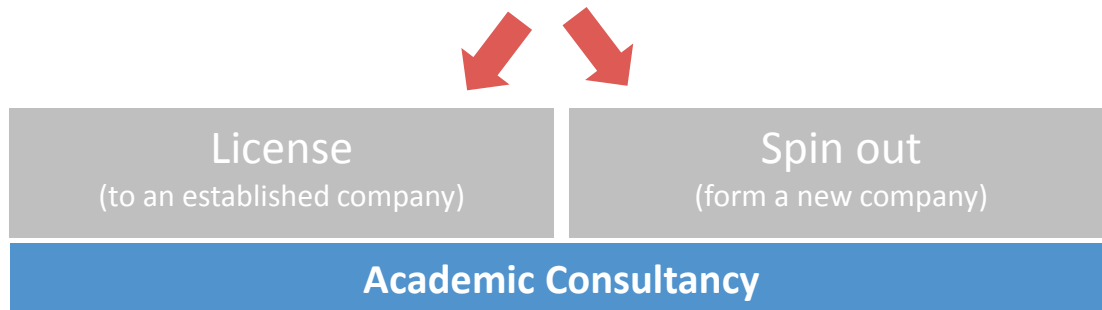
Global University Venturing 2014

© Copyright 2015 Isis Innovation Ltd.



# Academic Consultancy

What is the best route to market



- Can lead to licensing
- Can support spin-out companies

# Post-Deal Support

- Signing the agreement is only the beginning of the partnership
- Regular communication and review
  - Technical support requirements?
  - Development milestones being achieved?
  - Is sales revenue being generated?
- Both parties need to work to ensure success





# Isis Enterprise – A Global Innovation Management Consultancy

Providing expertise and advice since 2004

Policy and  
benchmarking studies

Innovation  
Management

Technology  
Commercialisation

Translational Funding  
Impact Reviews

Commercialisation  
Training

Innovation Ecosystem  
Development

Technology & Market  
Due Diligence

Technology Scouting



Elena Andonova, MBA  
Isis Enterprise  
T: +44 (0)1865 280 821  
M: +44 (0)7538 670 573  
E: elena.andonova@isis.ox.ac.uk

Winner 'Technology Transfer Unit of the Year'



Global University Venturing 2014

© Copyright 2015 Isis Innovation Ltd.



ISIS  
ENTERPRISE