



Technology Transfer Management Key Factors of Success

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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.



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Project Management for Technology Transfer

1

Objectives

*What you're trying to
achieve*

2

Challenges

What it's Actually Like

3

Methods &
Resources

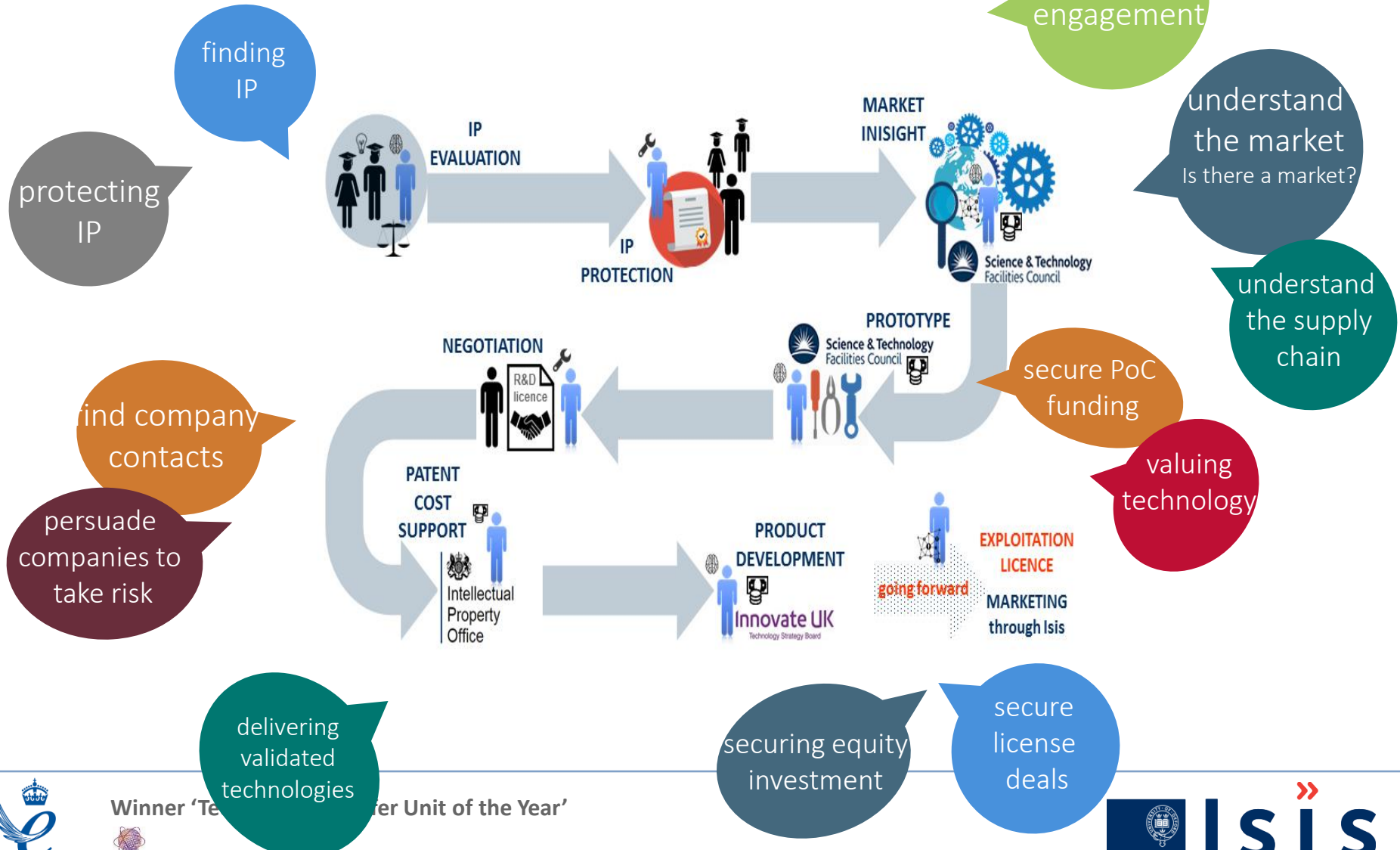
How you do it

Easy asA B C ?

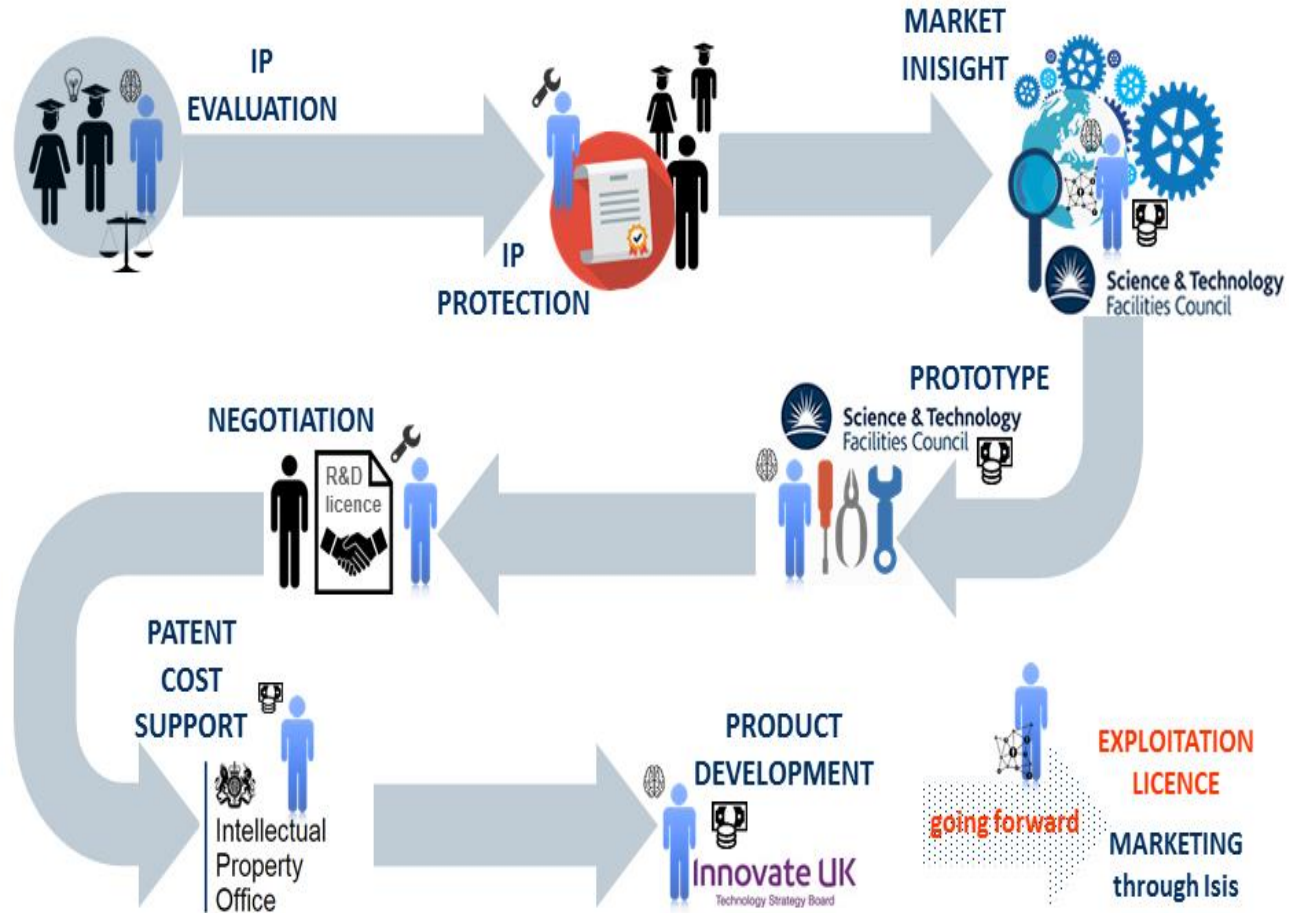
Objectives



What are the Challenges



What does the TTM do



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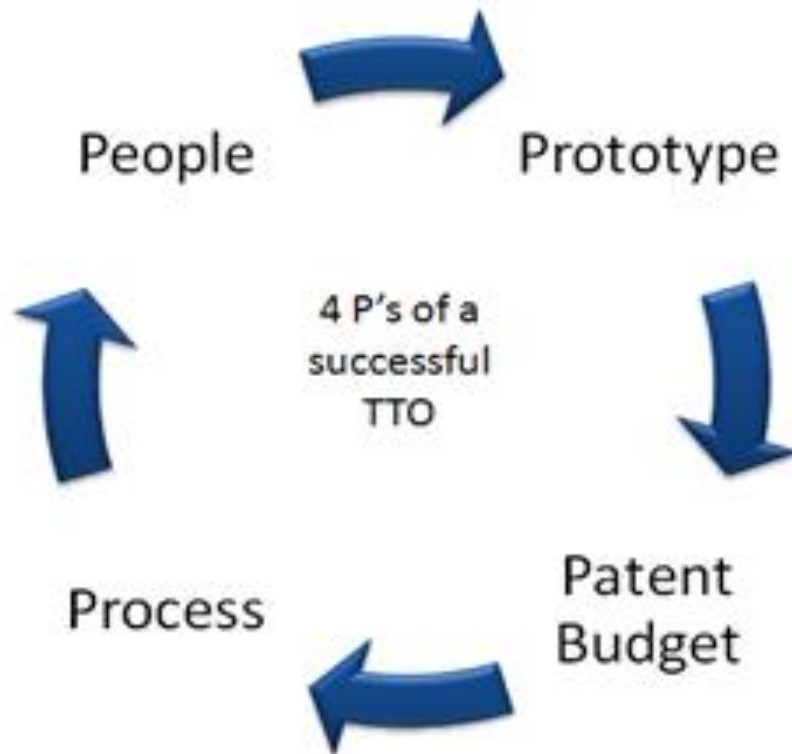


Example – Natural Motion



- *Euphoria* software enables characters to interact and respond to their virtual environment
 - Used in films including *Poseidon* and *Troy*
 - Video games *Grand Theft Auto IV* and *Star Wars: Force Unleashed*
- Based on algorithms developed by founder & CEO, Torsten Reil and Colm Massey
- University Challenge Seed Fund grant in 2000 provided funding to get first programme started - £23K
- Bought by Zynga for **\$527m** in February 2014

The 4 Ps of A Successful TT Office



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Resources and Skills Needed by TTOs

- Top-level University Support
 - As well as good relations with the inventors
- Funding / Investment to support initial IPR costs
 - Patent Applications, Etc.
- Entrepreneurial Technology Transfer Office Staff
 - With experience of IP contract management
 - With technical and commercial assessment skills
 - Able to sell IP advisory services to University Researchers
- Wide-ranging commercial and legal contacts
 - Speed - Able to act quickly to protect IP assets
 - Able to act quickly so as not to hinder academic publication

Organisational Approaches

- Buyers and Sellers v Cradle to Grave
- Buyers and Sellers: a team of individuals who identify and protect inventions; a separate team of individuals to market, license and spinout technology
- Cradle to Grave: a team of individuals who take the project all the way through from identification to exploitation
- Advantages of Cradle to Grave:
 - Single point of contact for the researcher
 - Single point of contact for third parties
 - Contact knows about all aspects of the project
- Disadvantage of Cradle to Grave:
 - Hard to recruit people with the diversity of skills

Organisational Structure

<i>University Department</i>	<i>Separate Company</i>
Easier to control	Entrepreneurial freedom
Embedded in university	Independent pay scales
Championed by university hierarchy	Performance incentives
Run by insider e.g. pro-rector for research	Isolates contractual risks
Territory specific tax benefits	Run by outsider
Easily aligned with contract research staff	Territory specific funding benefits

Key Skills

- The 'Ideal' commercialisation manager
 - Is patient and has good attention to detail for supporting patenting process
 - Has a high level of knowledge in a relevant technical area
 - Understands and has sympathy for the universities position
 - Can empathise with disparate groups of people (researchers, industry, investors)
 - Is good on the telephone and face-to-face; getting to the right contact and making the pitch
 - Thinks laterally and creatively
 - Negotiates well to secure a good deal; doesn't take it personally
 - Has credibility and gravitas
 - Anticipates the tricks
 - Remembers to record all the details of the deal they have done
- Doesn't exist....

Engaging your university – the importance of IP Policy

- Legal ownership
- Rights to commercialise and associated responsibilities
- The commercialisation process
- Benefit sharing
 - Scientists/ Researchers
 - Wider organisation
 - Department, Faculty, School
 - TTO



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Mechanisms in place to ascertain IP ownership



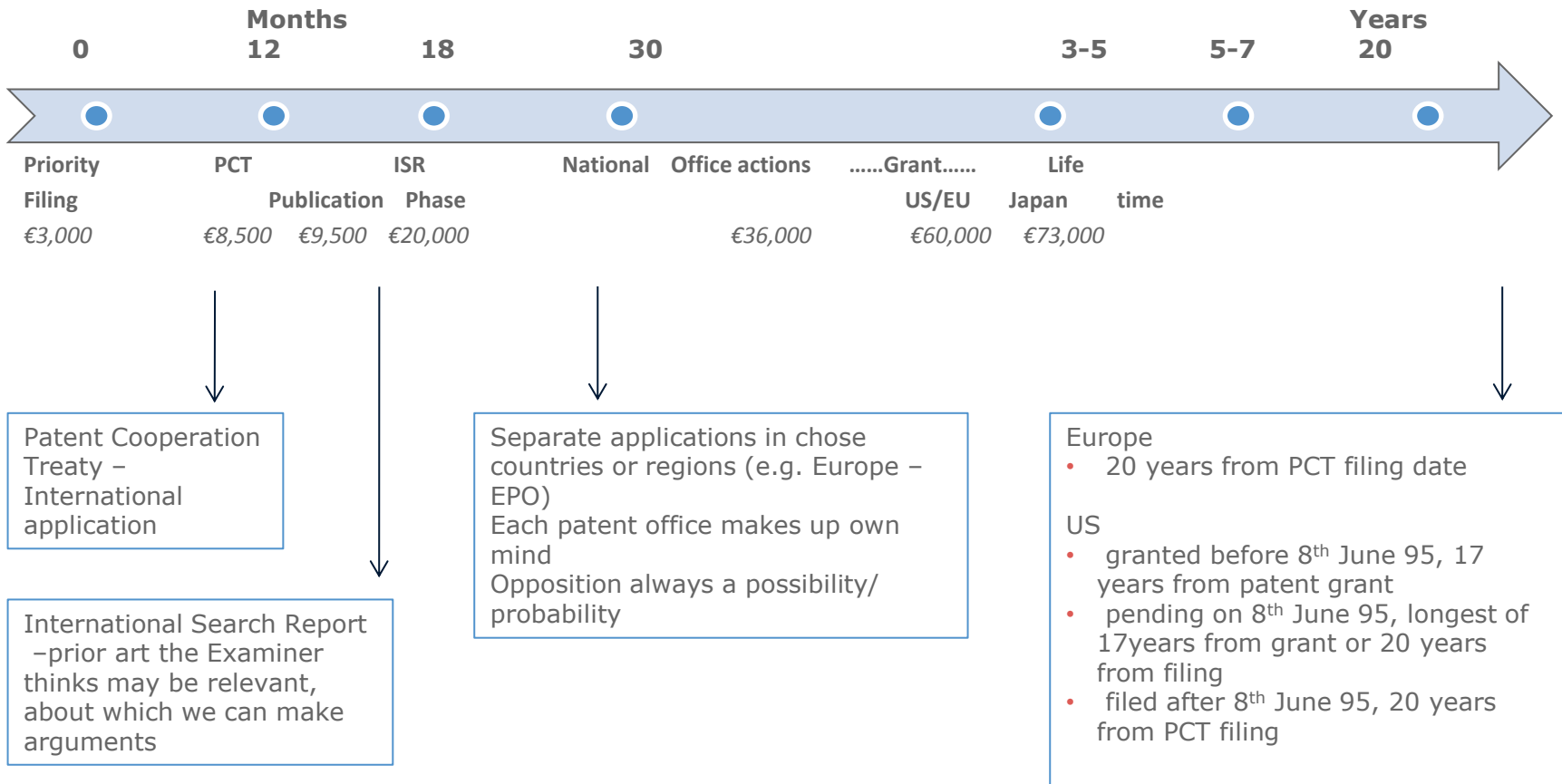
- Isis currently manages over
1,250 Patents & Patent Applications
300 active licensing deals
Over 1,000 active projects

Freedom to Operate

- Just because you can get a patent doesn't mean you can use it
- You may need to get access to other technology in order to make, sell or use your patented technology
- Example: Medical diagnostic PCR tests
 - Roche protected a process for DNA amplification in 1985
 - Many patented Diagnostic medical tests developed, require DNA amplification
 - Companies required a licence to the DNA amplification patent in order to successfully exploit their own patents
 - Roche operated a sophisticated licensing programme making the technology available at a price
- Not all patent owners will allow use of their patented technologies

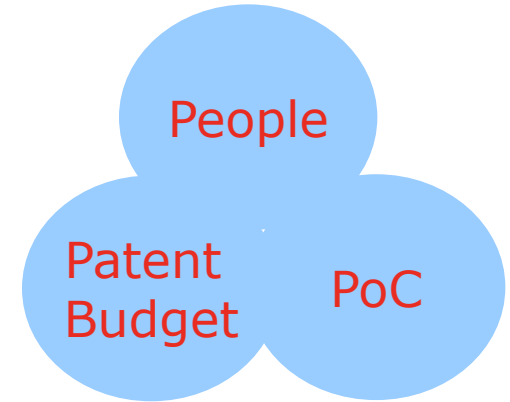


The Patenting Process- The Importance of making the right strategy



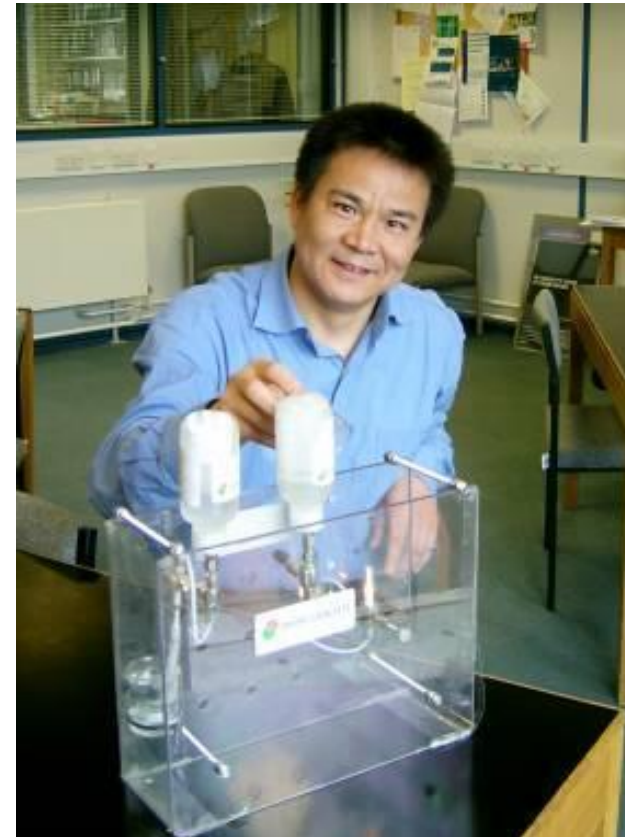
Bridging the funding gap

- Some (but not all) university inventions are early stage
- You have enough results for a paper or patent
- You might be struggling to find a customer
- You might be worried that the breadth claimed in your patent cannot be supported with real examples
- You may have been told that if you sell it now you will only make a small amount of money
- The answer is proof-of-concept, translation or early-stage seed funding – Isis manages 2 funds for Oxford:
 - University Challenge Seed Fund and Oxford Invention Fund



(e.g. Oxford Catalysts)

- Researchers awarded £124,500 in June 2001 from the UCSF
 - Led to equity in the Co. in Dec 2005
 - A patent
 - Significant value back to fund – an **evergreen fund (£1m to date)**
- Proof of concept award September 2004
 - £24,500 for building a prototype – impressing potential investors



Internal Marketing

Key issues

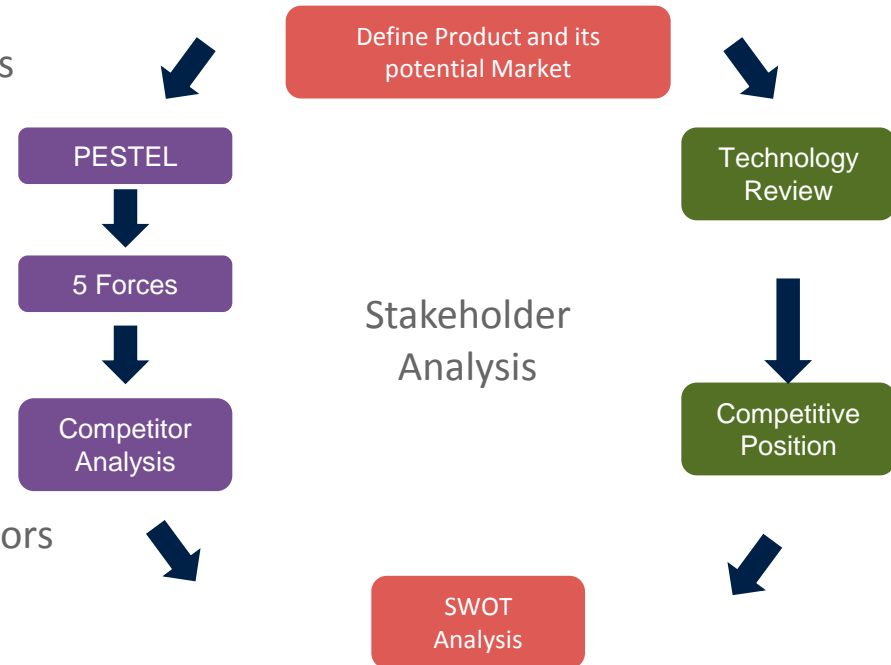
- Must maintain researcher confidence
- Needs to be flexible – different techniques for different departments
- Needs to be Continuous
- Objective is to secure the 'Right' disclosures

Elements of an internal marketing campaign: Meetings

- Attendance at Departmental Seminars
- Coffee and Cakes introductory sessions
- Department contacts making introductions
- Meetings with Department Heads
- Surgery sessions
- Researcher Drinks
- Translational Funding Schemes
-Innovative Ideas

Market Evaluation and Strategy - a recommended approach

- Business and Product overview
 - Current structure and business objectives
 - Core capabilities and competencies
 - Key product and service offerings
- Market Assessment
 - Addressable markets
 - Industry drivers and trends
 - Competitive landscape and key competitors
- Market Positioning and Strategy
 - Proposed target markets
 - Define the product for the target markets
 - Recommended marketing approach



After the Deal

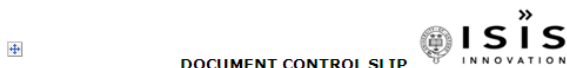
The deal has been done... But there are still things to do

- A transfer deal is about both parties seeing a return
 - For the licensor information helps Budget planning,
 - Aids management decision making
- Make sure you have original agreement signed by the licensee - first hurdle if things go wrong will be to prove copy is legitimate!
- Might need to see agreement again in a few years so file well, ideally in a fire proof cabinet
- Book important dates in diary until the end of the deal



Document Control

You need a summary record of each deal :



Project Manager:		Project No:	
Principal Investigator / Inventor / Consultant:			
Parties <small>(Please circle name to be filed Under; also give address for correspondence if different from signatory address.)</small>	Isis Innovation Ltd		
Type of Document: (Please Tick)			
CDA	Standard		Non Standard
Consultancy	Standard		Non Standard
Service	Standard		Non Standard
Departmental Consultancy	Standard		Non Standard
Revenue Sharing	Standard		Non Standard
Option	Exclusive		Non Exclusive
Licence	Exclusive		Non Exclusive
Assignment		IP Form	
Directorship		Science Advisory Board	
Other (Please specify)			
EITHER - A: This is a Standard Agreement Yes / No			
OR - B: If No Please highlight significant changes to the standard Isis/University approach and/or note where minor changes have been made to standard document; append tracked change where sensible.			
I (PM) confirm that Isis has received a signed IP3/MT3/satisfactory CoI check for this Project, or (for TT CDAs only) a green/orange marketing consent, or non-IP3, and this deal falls within any restrictions identified by the checks. Yes / NA			
I (PM) have informed the researcher(s) involved of this transaction and the impact it will have on them, including further research developments (improvements), confidentiality, publication. Yes / No / NA			
Signature: (Project Manager)		Date:	
The Agreement has been approved by me as Project Team Manager / Head of Group? Yes / No			
Legal Advice from LSO was sought and considered? Yes / No			
Signature: (Project Team Manager / Head of Group)		Date:	

Standard agreement? : Yes/ No

If No

Please highlight significant changes to the standard Isis/University approach and/or note where minor changes have been made to standard document; append tracked change where sensible.



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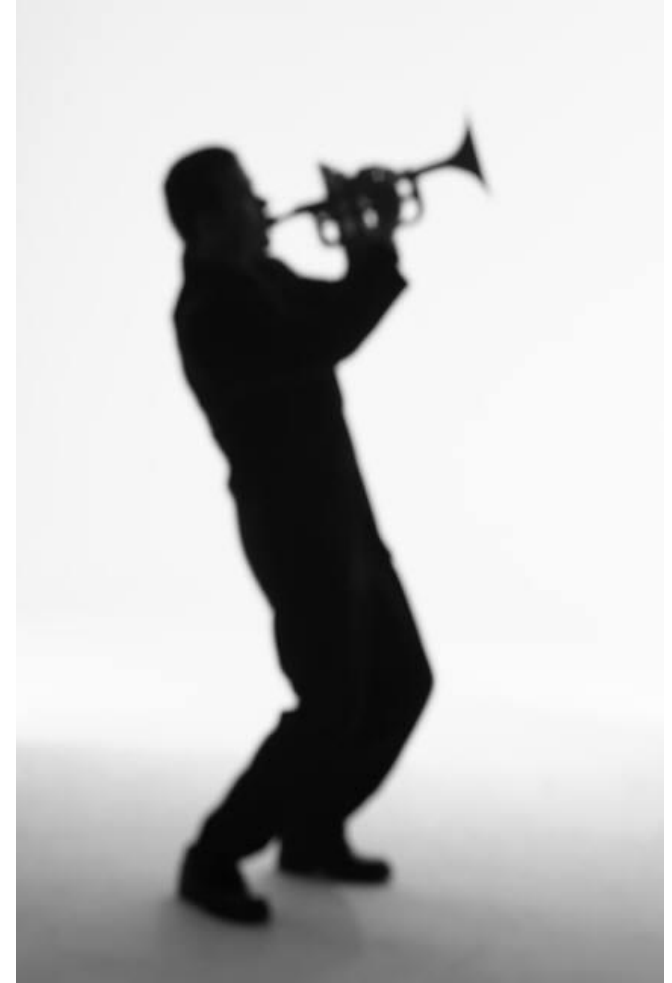
Publicising the Deal

Success breeds success

- So it is well worth publicising deals
 - Internally
 - Externally
- Moral boosting for inventor, licensor and licensee

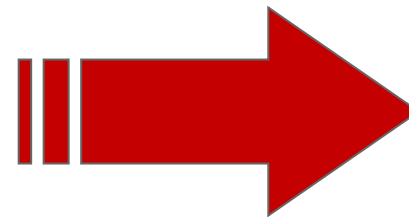
However...

- Beware of confidentiality
- Get it checked by licensee's press office and your own



Deal Management

- Are the patent costs covered?
 - Is the licensee paying for ongoing patent bills?
 - Have back patent costs been paid?
 - Is Isis in the black?
- Is the licensee keeping to the deal?
 - Are they exploiting the technology and keeping to development plan?
 - Are they making money and paying royalties?
 - Are there any research agreements or consultancy projects tied in?
 - Are there any alternative licensees?
 - Does the deal need to be renegotiated?
- Is the technology still useful?
 - Has the technology been superseded?



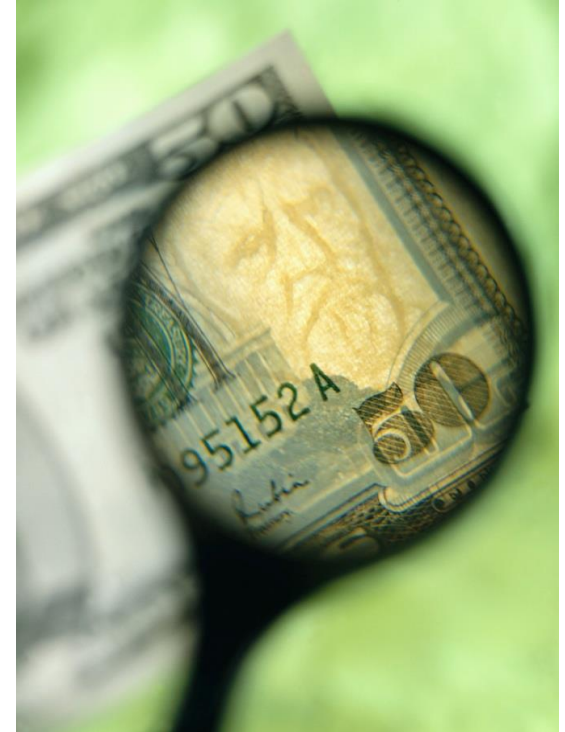
Auditing

The licensor should ask for audit rights:

- **Financial audit** rights - an accountant reviews the books and get licensee to pay costs owing.
- **Performance audit** rights – project manager to
 - attend project meetings
 - get meeting minutes
 - check contracts with third parties by lawyer

When to exercise these rights:

- Licensee doesn't pay when they should
- Licensee pays some but not all



**Consider relationship and sums involved:
is it worth the time, effort & cost?**

Oxford Spin-out Equity Management

- Formed in August 2008
- To manage the University's interests in its spin-out companies
- Two executives (Director and Portfolio Manager)
- Mission: “To add value to Oxford University’s stakes in its spin-outs”
- *Modus operandi*
 - Working closely with Isis Innovation
 - Maintaining relationships with the companies and their Boards
 - Understanding their business models, aspirations and challenges
 - Creating transparent processes by which University can effect its aims
 - Implementing chosen course of action
 - Reporting to University (balanced analysis of upsides and downsides)



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