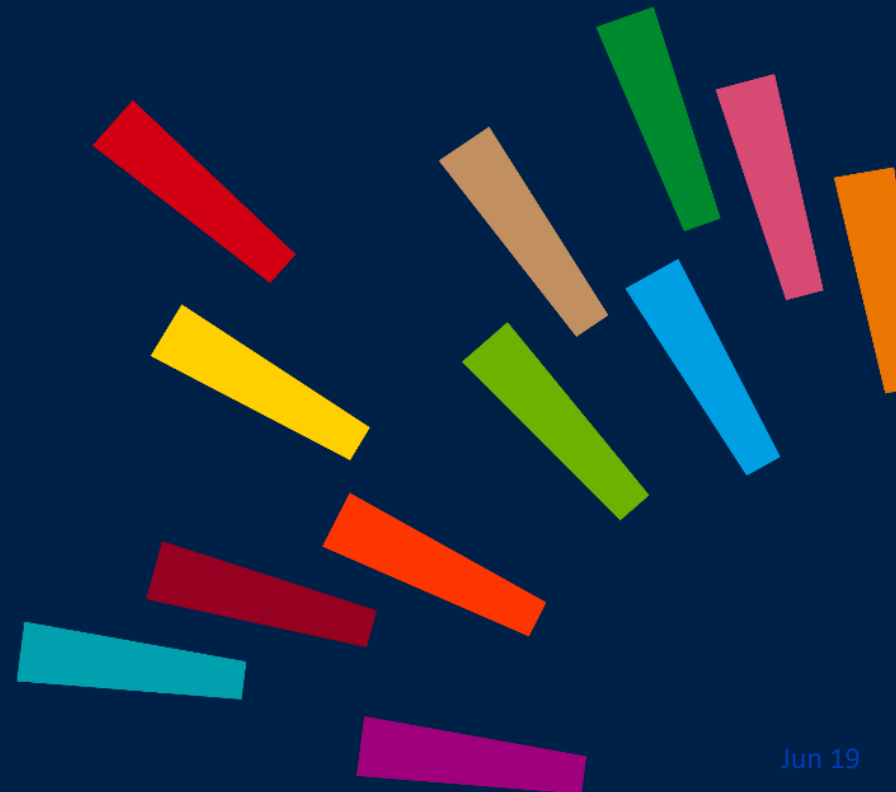


# OXFORD UNIVERSITY INNOVATION



Intellectual Property &  
Commercialisation  
**WIMM DPhil Course 2019**



# Intellectual Property & Commercialisation

- Oxford University Innovation
- Intellectual Property
- Commercialisation
- Consultancy
- Material Transfer Agreements

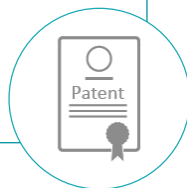
# Oxford University Innovation Ltd

Creating global impact from academic discovery and expertise



• **Enabling impact from discovery** through Licensing, IP and Patents, Spinout formation, Material Sales, Clinical Outcomes, Startup Incubator, Social Enterprise creation, Oxford University Hospitals NHS Foundation Trust

## Licensing & Ventures



• **Supporting researchers and external partners** to utilise academic expertise and technical services

## Consulting Services



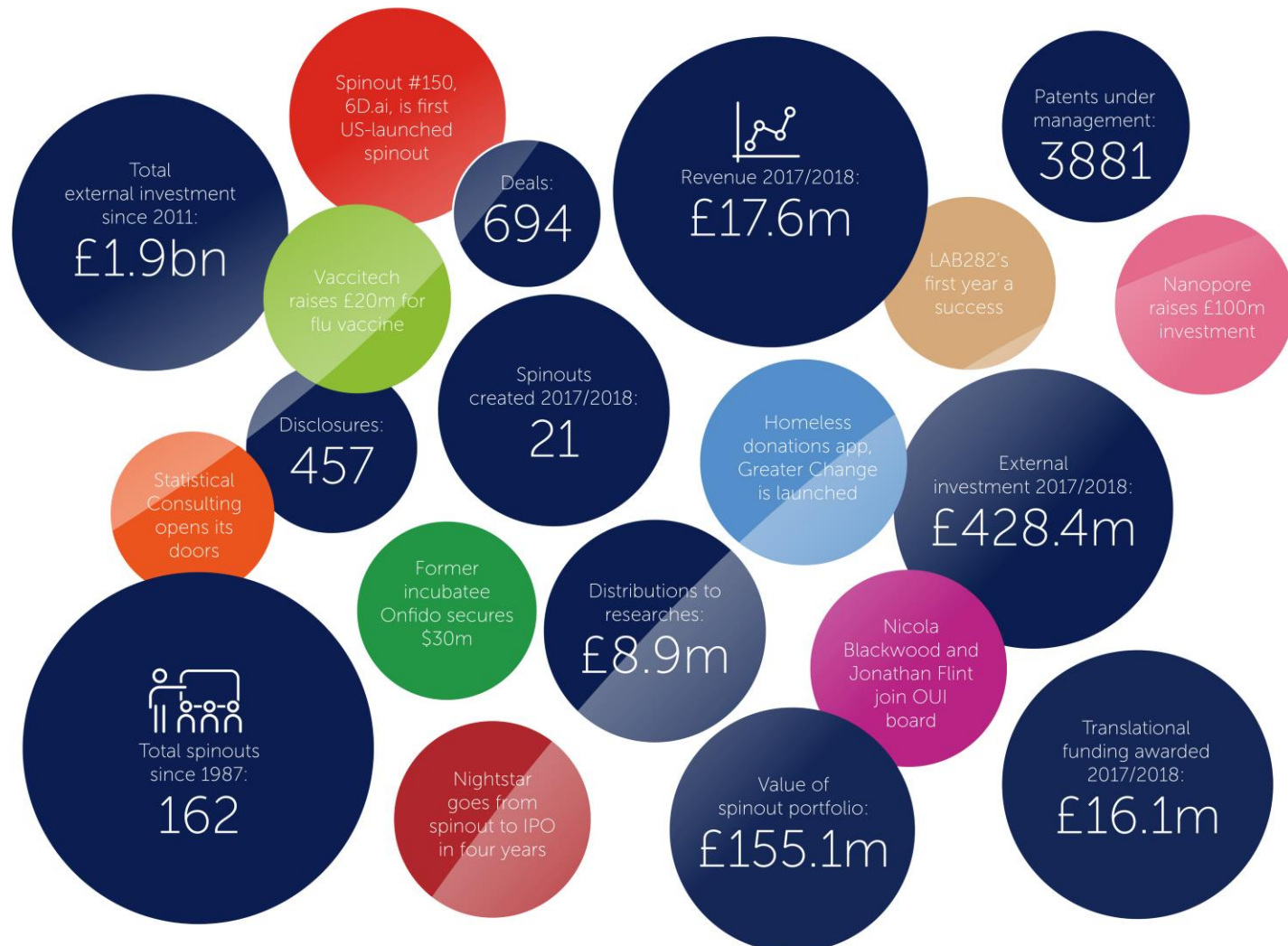
• **Enabling ventures to grow from concept to maturity** through Seed Funds, Oxford Angels Network, Spinout Equity Management

## Funding, Investment & Management



# OUI at a glance

Data from the 2018 Annual Review



# Intellectual property & IPR

- **Intellectual Property (IP)** is ideas, information and knowledge;
  - “**Intellectual**” because it is creative output; and
  - “**Property**” because it is viewed as a tradable commodity.
- **Intellectual Property Rights (IPR)** are specific legal rights which protect the owners of IP.
  - Includes rights like **patents** and **copyright**
  - Also **database rights, design rights, trademarks and know-how**

Intellectual Property Rights (IPR) **can be traded** and used to generate income

# A product or service can be protected in multiple ways

| Legal Right       | Applicable to:                      | Driver  |
|-------------------|-------------------------------------|---|
| Patents           | New inventions                      | <b>Stop others</b> from <b>making, selling, or using</b> the invention                        |
| Trademark         | Product identifiers                 | <b>Stop others from using</b> your product names, logos and jingles                           |
| Registered design | External appearance                 | Stop others using the appearance: <b>shape, packaging, patterns, colours and decorations.</b> |
| Know-how          | Information not publically known    | Can be licensed to others to generate revenue   |
| Copyright         | Original creative or artistic forms | Stop others from using writing and literary works, art, photography, films, TV, music, etc.   |
| Database rights   | Databases                           | Can be licensed to others to generate revenue   |

**Multiple layers** of IP protection can be used simultaneously

# Patents can be used to protect new inventions

- Prevents unlicensed **manufacture, use, importation** and **sale**
- Can **choose to let others use under agreed terms**
- Gives breathing **space to develop a business based** on an invention
- **Society in general benefits** from improved products
- Can be **licensed** before it is granted



- **Formal application** required
- Time until protection granted: **3-5 years**
- Duration of protection: **20 years**
- Full description of **invention published** after 18 months
- Do not confer a legal right to exploit the invention
- **Geographic** dependence
- **Costly**

**HUMIRA**  
adalimumab

**OPDIVO**  
(nivolumab)

 **Remicade**<sup>®</sup>  
INFLIXIMAB

 **Herceptin**<sup>®</sup>  
trastuzumab

# What is patentable? – pharma & biotech examples

- Novel compounds – ‘new chemical entity’
- Pharmaceutical compositions
- Combinations
- Dosing regimes
- Drug delivery systems
- New methods of manufacture
- Recombinant gene products
- Research tools
- Diagnostic tools
- Monoclonal antibodies
- Transgenic animals/plants



# Criteria for patentability



# What is prior art?

Prior art is **any** evidence that your invention is already known (i.e. informs on novelty and inventiveness)

This includes...

**Anything publically disclosed** about your invention (by you or anyone else)

Conference posters or talks

Blogs or website posts

Papers and theses\*

Videos about the invention

Anything that suggests or alludes to something very similar to your invention (or part of it)

Patents that overlap (part of/all of) your invention

Publications

Centuries old technologies

Cave paintings, The Beano and Star Trek...

\* Unless subject to embargo

# Tools for patent searching

Free



**Espacenet**  
Patent search

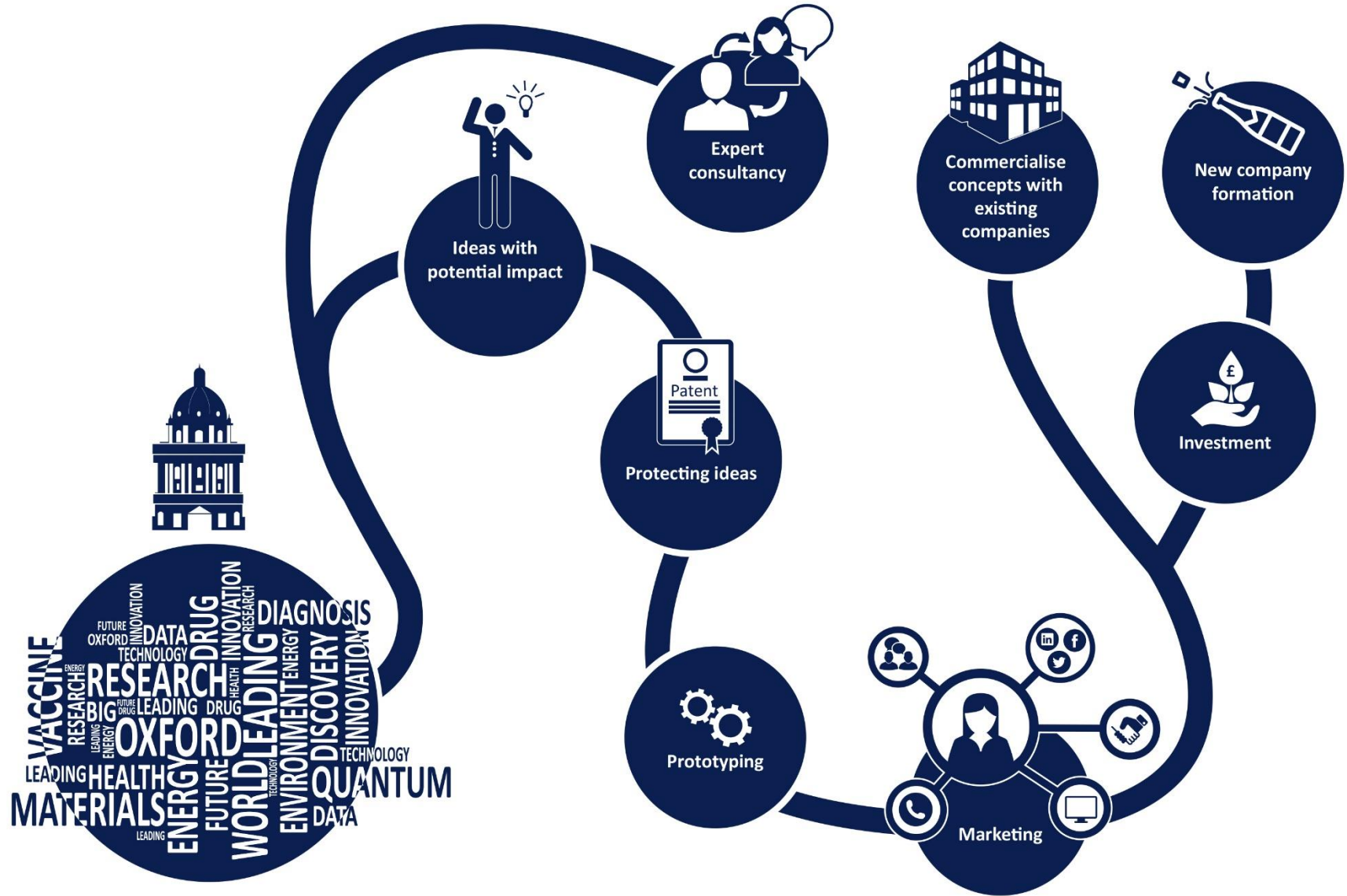


Search International and National Patent Collections

Paid



# Routes to commercialisation

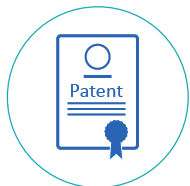
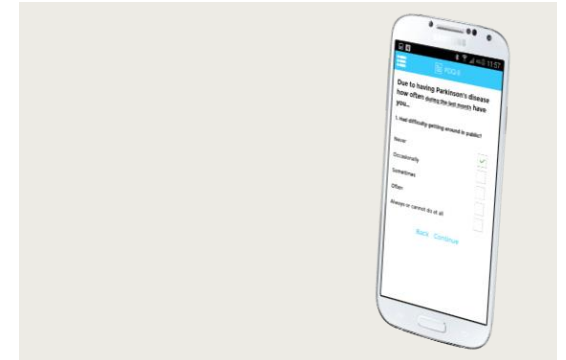


# Licensing of Intellectual Property

Access to technologies and IP developed in Oxford



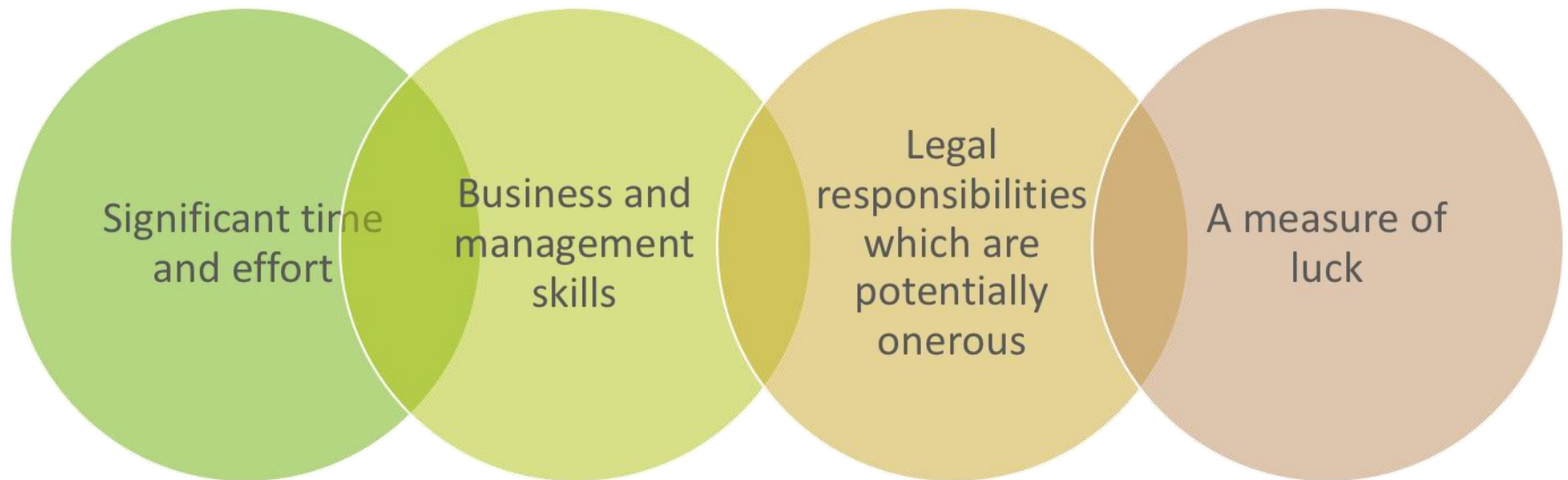
- **100+ commercial licenses/year** concluded with companies small and large
  - Includes **Clinical Outcomes** assessment (COA) measures - mostly Patient Reported Outcome Measures (PROs or PROMs).
- Example : suite of digital health products for data analysis, decision support and patient safety information
  - **Machine learning artificial intelligence software**, developed at Oxford University's **Institute of Biomedical Engineering**.
  - Will improve **patient health outcomes** and reduce **healthcare costs**.
  - Licensed to **Sensyne Health** (formerly Drayson Technologies) to lead evaluation and deployment across the NHS.



# Spin-out Companies

In some cases setting-up a new company (a “spin-out”) can be a more appropriate route to commercialisation

Successful spin-outs involve:



# Spin-out Companies



# Recent WIMM spin outs



Image and data  
management



ORBIT DISCOVERY

Peptide Therapeutics

MiroBio

Novel anti-inflammatory therapies



Nucleome  
Therapeutics

Unlocking the non-coding  
genome for human health



OXSTEM

Regenerative medicine



THERAPEUTICS

iNKT agonists for  
immuno-oncology



# Oxford Startup Incubator

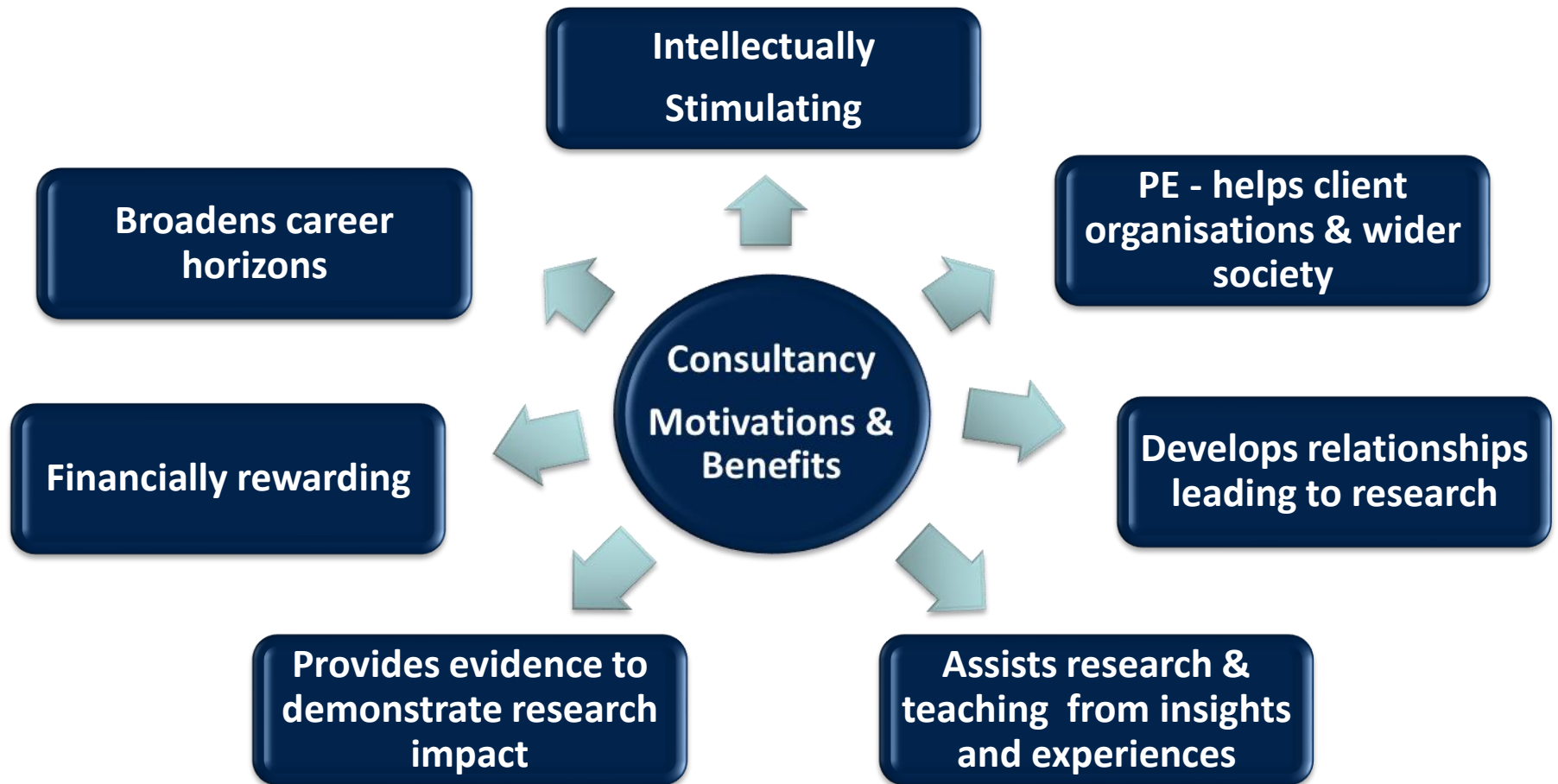
Supporting entrepreneurial ventures from Oxford



- Assist in the creation and development of non patent led businesses
  - Open to researchers, employees, students and alumni
- Comprehensive support includes
  - commercial advice & mentoring;
  - workshops and training sessions;
  - desk space; and
  - access to business and investment networks.



# Why do consultancy?



# Consulting Services

Enabling Oxford expertise to have impact in the wider world



Helping academics identify and manage consulting opportunities.



Supporting Departments in arranging external services (including consultancy) work.



Providing external organisations with access to University expertise & facilities.



## Consultancy on licensed IP



- Advise on development of technology
- Training in use of technology
- Support integration of technology into Licensee's systems
- Adapting technology to meet Licensees needs

# Material Transfer Agreements:

- All exchanges involving exchange of reagents or know-how
- Standard formats
- May limit later patenting options
- Check with University Research Services Office before signing

# THANK YOU



[matthew.carpenter@innovation.co.uk](mailto:matthew.carpenter@innovation.co.uk)

Buxton Court, 3 West Way, Oxford OX2 0JB

T: +44 (0)1865 280970

**[www.innovation.ox.ac.uk](http://www.innovation.ox.ac.uk)**

[linkedin.com/company/oxford-university-innovation](https://www.linkedin.com/company/oxford-university-innovation)

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