

From the Bench to the Bank: *An Overview of Technology Transfer*

Dr. Trevor Farren
Business Development Manager
School of Chemistry
University of Nottingham



My Brief...

- **What is it?**
- **Where did it come from?**
- **Why is it Important?**
- **Who does it?**
- **Where can you get funds for it?**
- **Where might it be going next?**





An Industry in Transition

“The UK Chemicals Sector needs to address its future prosperity in two ways: by being **Innovative** in using science and technology to develop **New (Added Value) Products and Processes** and by ensuring its workforce has the right sets of **Skills** and competences”

Chemicals Innovation and Growth Team Report 2002

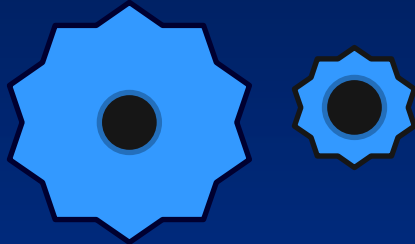


Successful Innovation?



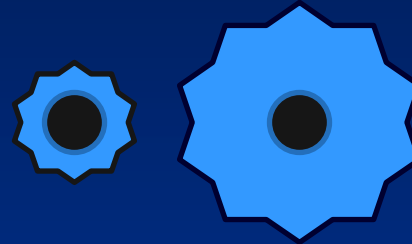
Successful Innovation?

Research



A = 40 B = 10

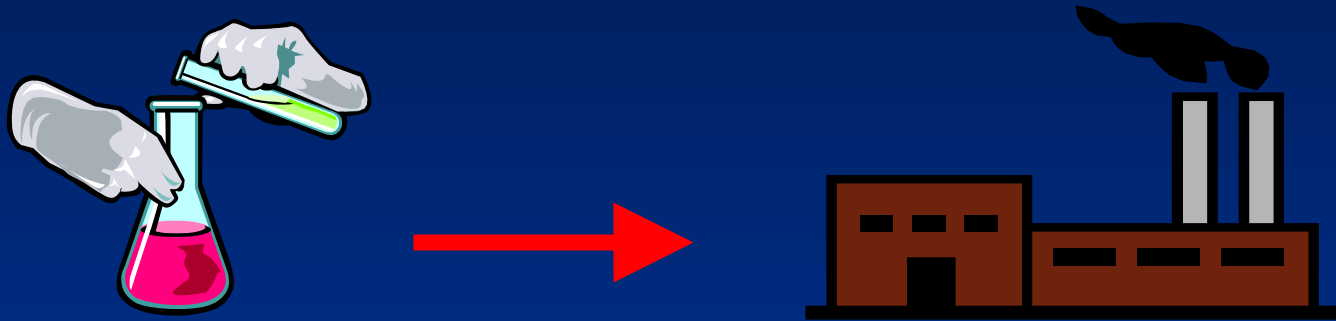
Production



The Big Cog Goes on the Right!

Effective TT is vital for Successful Innovation

Technology Transfer



the process of converting University inventions into profitable business ventures

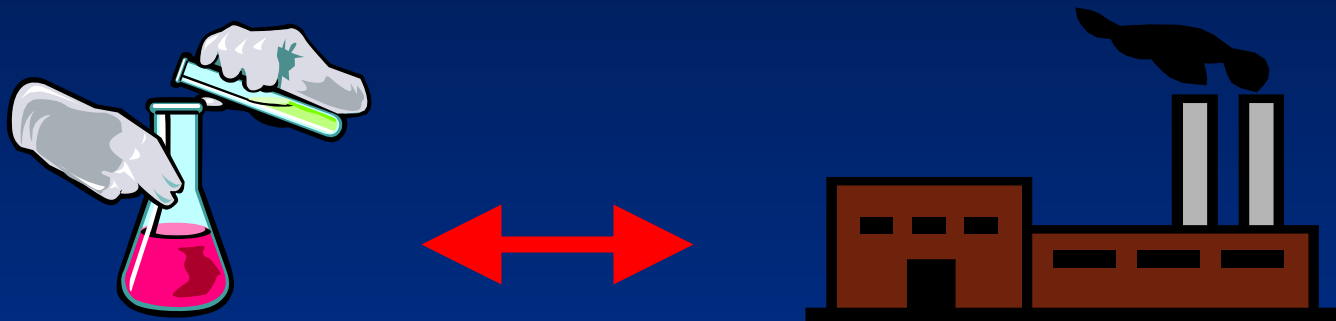


Knowledge Transfer




the process of utilising University skills and knowledge to create wealth

Knowledge Exchange



*the process of combining
University and other Organisations
skills and knowledge for mutual
benefit*



British Technology Group NRDC - (1948)

- **Commercialisation of all Government Funded Inventions (University IP)**
- **Hovercraft?**
- **Mono-Clonal Antibodies?**



Margaret Thatcher (1978)

- **Taxation Rules Permit
Venture Capital**
- **Universities can own IP**
- **But must set up
Mechanisms to Exploit**

Why ?

- **Mission: “Academic Excellence in Teaching and Research”**



- **Additional Income**
- **New Research Challenges & Learning Experiences**
- **New Scientific Interactions**



Government View

- Drivers of Innovation, Wealth Creation & the Economy
- Tangible Outcome from Investment
- Support for Technology Transfer (HEIF)



Technology Transfer Office

- **Negotiate Research Grants & Contracts (Clear IP Position)**
- **Commercialise Outputs of Research (Licenses & Spin-outs)**
- **Co-ordinate other KE Activities (Consultancy, Use of Services)**



Technology Transfer Office

- **Specialist Staff**
- **Separate Entities (Isis Innovation Ltd.)**
- **Deals with Professional Intermediaries (IP2IPO - IP Group, BioFusion – Fusion IP)**



Knowledge Exchange Professionals

- Facilitate Interactions
- Knowledge of both Industry and Academic Culture / Practices
- Understanding of KE Processes
- Add Value to the KE Process

School of Chemistry BPU

Provides a Focus for Supporting and Developing the Entrepreneurial and Business Related Activities of the School

- Business Manager
- Business Science Fellows
- Fully Integrated



Business Science Fellows Outputs

- Commercial Outcomes
- Change in Attitude / Outlook
- Trained Individuals
- Alumni Network





KE Activities

- **Managing Relationships** with Current and New Industrial Partners
- **Focal Point for Enquiries** (Matching Company Needs with School's Capability)
- **Identifying Research with Commercial Potential**
- Managing a Portfolio of **Knowledge Exchange Projects**
- **Mentoring Staff and Students** (Specialist Advice and Training)

Process Overview

**EXCELLENT
RESEARCH**

**MARKET
OPPORTUNITY**

**IP
PROTECTION**

**TECHNICAL
ASSESSMENT**

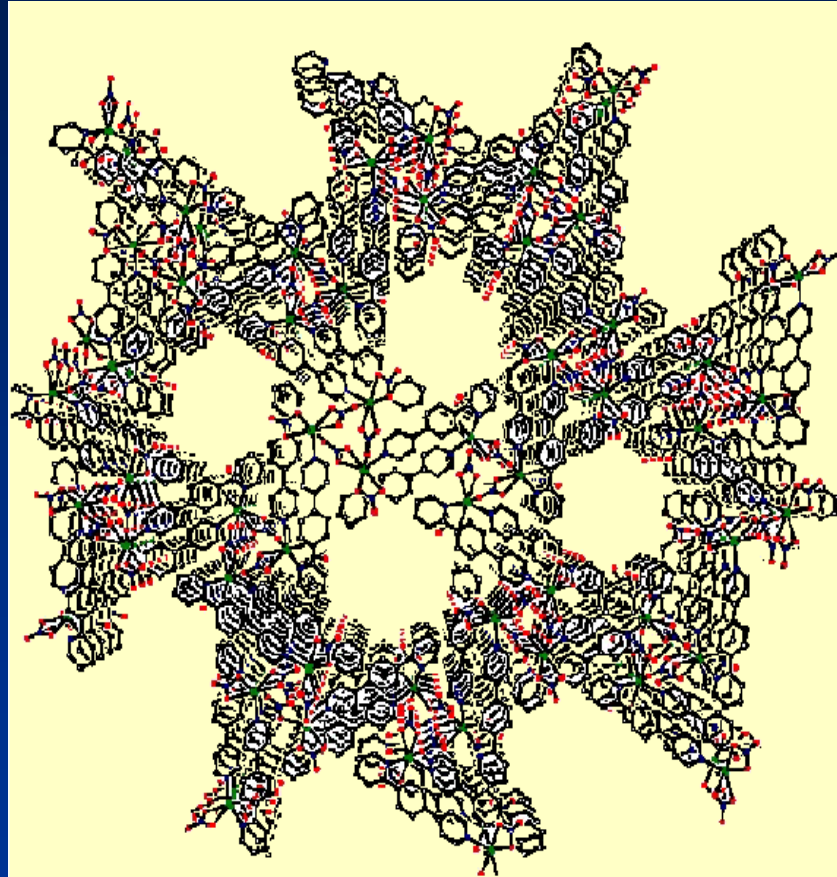
**COMMERCIAL
ASSESSMENT**

**LICENSE /
ASSIGNMENT**

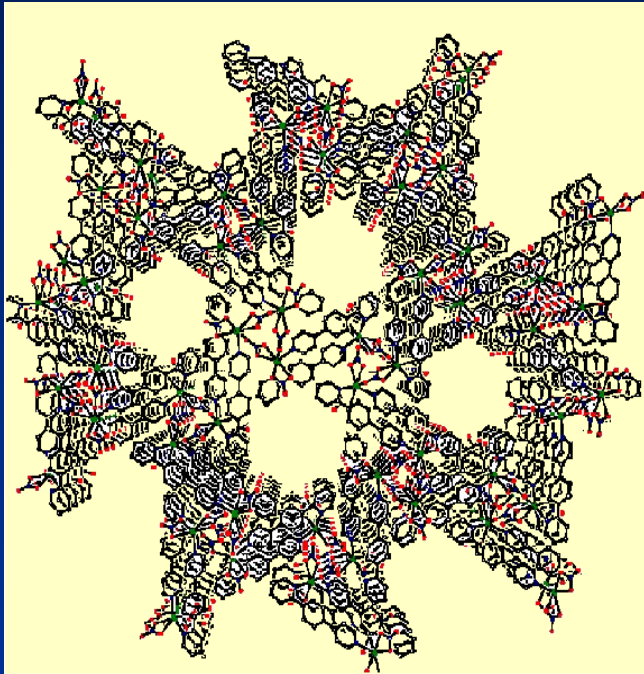
**SPIN-OUT
COMPANY**



Identifying Research with Commercial Potential



Commercial Potential of Research

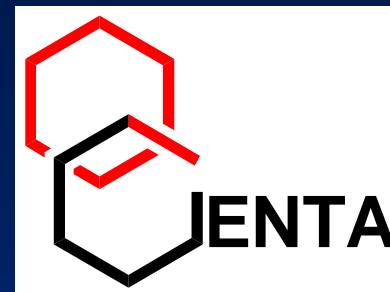


“World Record” for
Hydrogen Storage

Patent

Collaboration with Major
Automotive Manufacturer

Spin-out Companies





Funding TT Projects

RESEARCH
COUNCILS
(FOF)

UNIVERSITY
CHALLENGE
(LACHESIS)

RDA (HIRF)

NESTA
CARBON TRUST

HEFCE / HEIF

GOVERNMENT
DEPARTMENTS
(SBRI)

TSB (KTN,KTP)

CHARITIES
(WT, Gates)

INDUSTRY



SWIFT

Science with Innovation for Technology

swift-innovation.org.uk

**Unique Inter-University Collaboration
Between Academics and Embedded
KE Professionals Enabling Universities
to Respond More Effectively to the
Needs of the Chemistry Using
Industries**



MANCHESTER
1824



The University of
Nottingham

**UNIVERSITY OF
BIRMINGHAM**



What a Chemist needs to know about Technology Transfer

10:45 Commercialisation - not really an activity for a gentleman?

Martyn Poliakoff

11:30 The value of intellectual property

Jonathon Atkinson

13:30 How we all work together to get a licensing deal done

Susan Bright

14:15 Tech Transfer: What industry is looking for

David Hollinshead

15:30 Good science to successful chemistry

Steve Davies

16:15 The Technology Strategy Board

Paul Mason

From the Bench to the Bank: *An Overview of Technology Transfer*

Dr. Trevor Farren
Business Development Manager
School of Chemistry
University of Nottingham

