

Experimenting with life science intermediaries: The case of the pharmaceutical sector

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Overview

- Background
- What is a LSI?
- Justification for experimenting
- Learning from the past
- Case 1 – Johnson & Johnson (J&J)
 - National Innovation Systems
 - Location
- Case 2 – GlaxoSmithKline (GSK)
 - Regional Innovation Systems
 - Triple Helix
 - Open Innovation

Background

- The Lambert report 2003
- Economic drivers
- A return on investment from public funding of science
- The use of intermediaries to 'bridge the gap' between sectors

Defining an intermediary

- Multiple players required to generate innovations
- They don't naturally interact
- Provide a “bridging” function
- A good definition is:
 - “An individual or organisation that occupies the space between the research and the commercial exploitation of that research” (Wilson 2012)

What is an intermediary?

Confusing Terminology

Other names for Intermediaries

Boundary Spanner

Catapult Centre

Consultancies

Gatekeeper

Incubator

Knowledge Broker

Science Park

Knowledge Network

Cluster Network

Technology Transfer Office

Think Tank

Faraday Partnership

Associations

What is a life science intermediary?

- Life Science Intermediaries range from:
 - Science parks
 - Bio-incubators
 - Cluster network organisations
 - Research institutes
 - TTO's

Justification for Experimenting

- The Pharmaceutical Sector
 - Low hanging fruit
 - Patents
 - Drug Pipe-line drying up
 - Identifying and exploiting new drug candidates

Learning from the Past

- The case of the Orphan Drugs
 - Legislation 1980's
 - Incentivised companies
 - Blockbuster era – blinded to the opportunities

The Pharmaceutical sector needs to examine different pathways to replenish their ailing pipelines

❖ Creating Intermediaries to help is Bold & Alien!

Historical closed innovation system

- Traditionally R&D has been behind closed doors to prevent leakage of ideas and IP
- IP was highly valued

Case 1- Johnson & Johnson Innovation Regional Innovation Centers



London



Boston



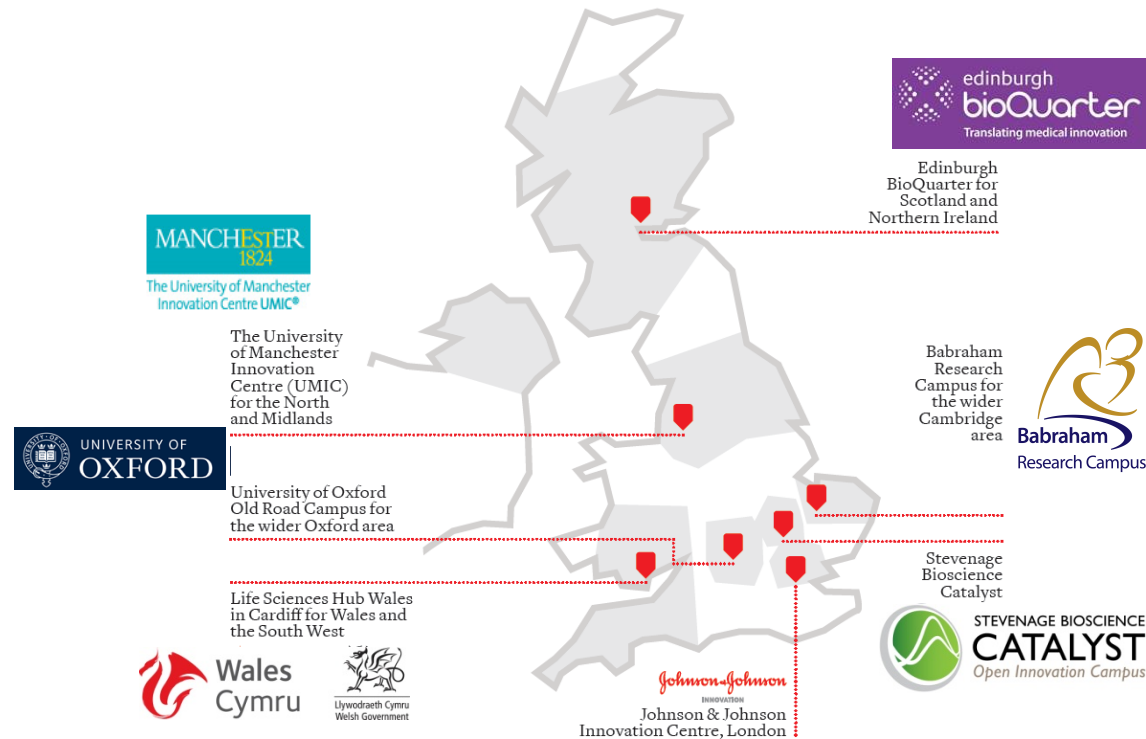
California



Asia Pacific
(Shanghai)

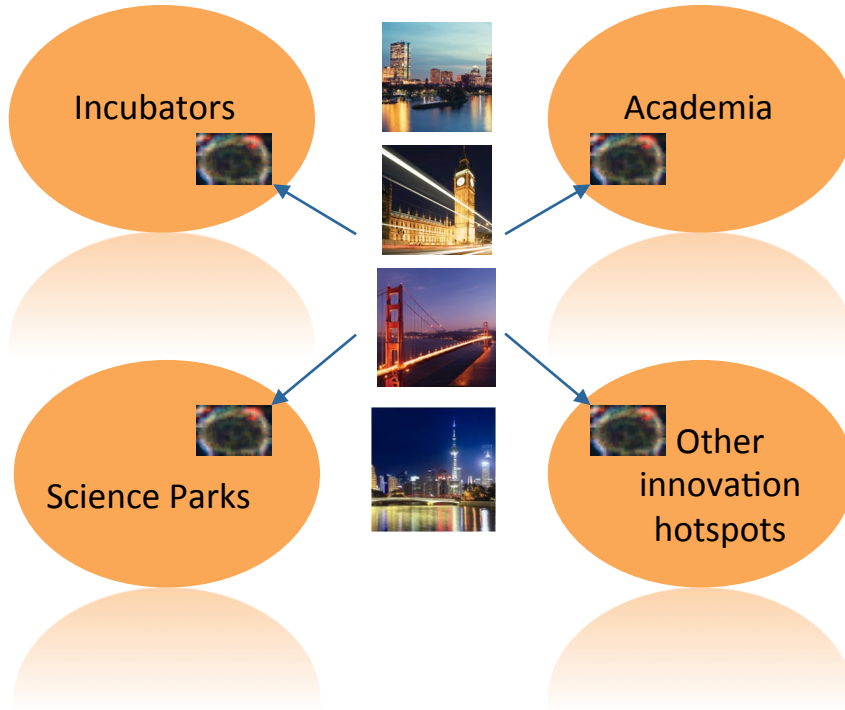
Johnson & Johnson Innovation – Applying a National Innovation Approach

- Builds relationships with the academic institutions, biotech organisations and venture capital groups throughout the UK
- Each office acts as a base for outreach in its region
- 6 established partnering offices throughout the UK



Johnson & Johnson Innovation: Proximity is Critical

Close to the innovator



- Working in proximity to scientific innovators
- Identifying the most promising early-stage opportunities
- Helping to attract innovators to hotspots

Case 2- The Stevenage Bioscience Catalyst

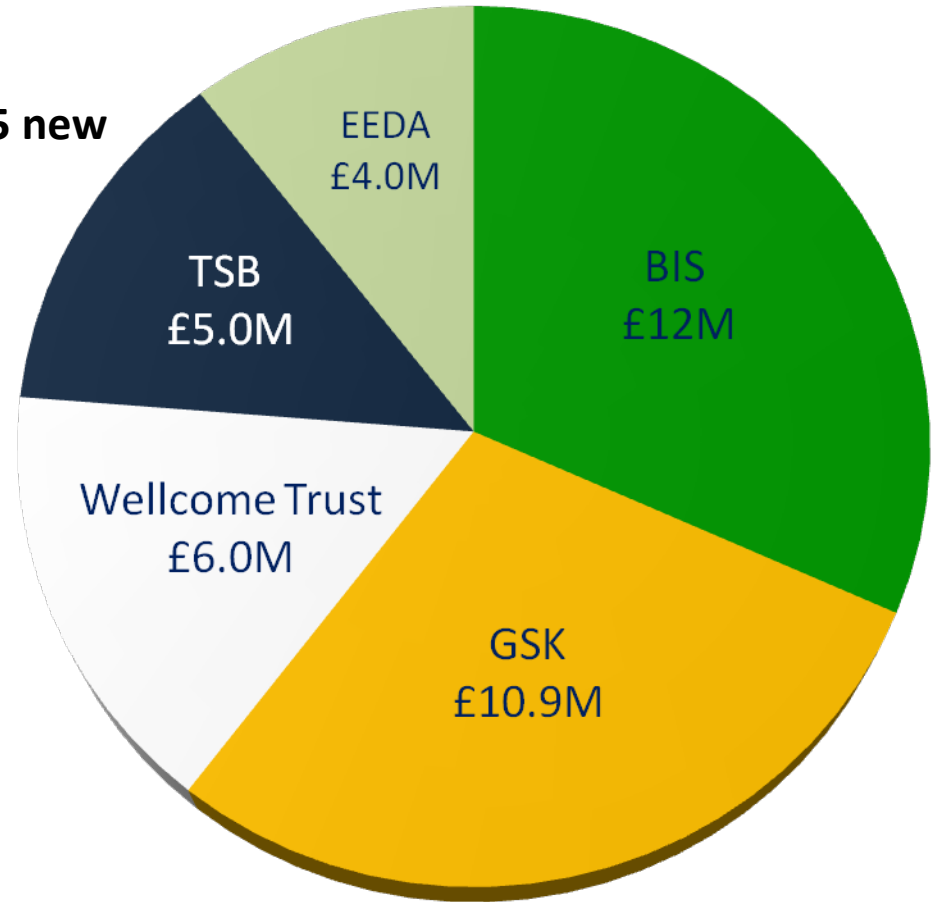
Applying a Regional Innovation Approach



Purpose-built Open Innovation campus
Support for “start-up” companies
Convenient location
Catalyst for innovation

Once complete – Phases 1 to 3:
Up to 25 companies, including 5 new ventures
Over 1,500 additional jobs

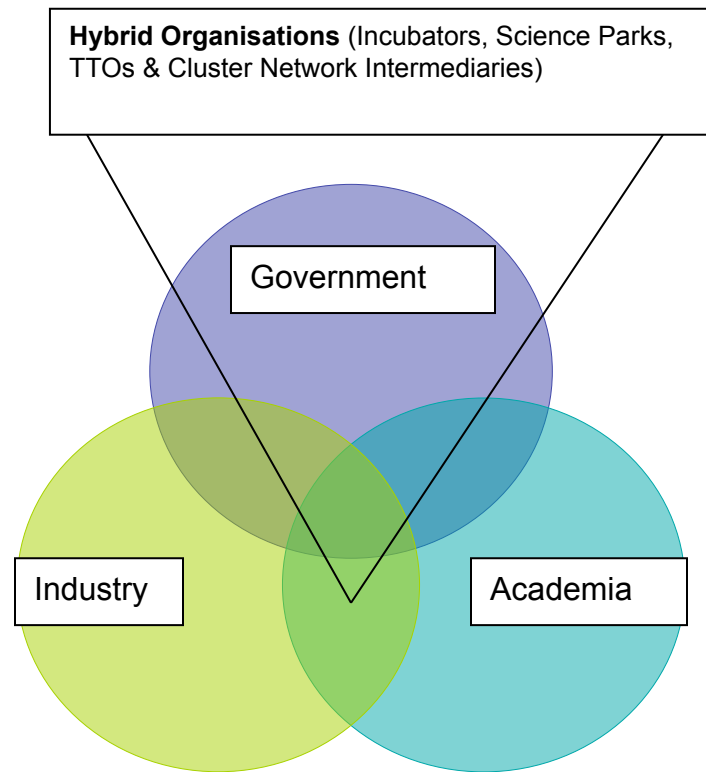
Initial funding of c.£38million for Phase 1:
Government’s Strategic Investment Fund (BIS)
Technology Strategy Board (TSB)
Wellcome Trust (WT)
East of England Development Agency (EEDA)
GSK (investment plus land)



The Triple Helix Model

- Proposed by Etzkowitz and Leydesdorff in 2000
- Not new – came at a time of need to create economically dynamic society driven by innovations

The Triple Helix Model



**The Triple Helix (Adapted from Etzkowitz and Leydesdorff)
(2000)**

Open Innovation

- Chesbrough Open Innovation model 2003
- Allows Companies to combine internal and external ideas and innovations to create value
- Boundaries between partners become permeable to inward and outward flow of knowledge
- Virtual Intermediaries are common
- Starting to take Risks

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