



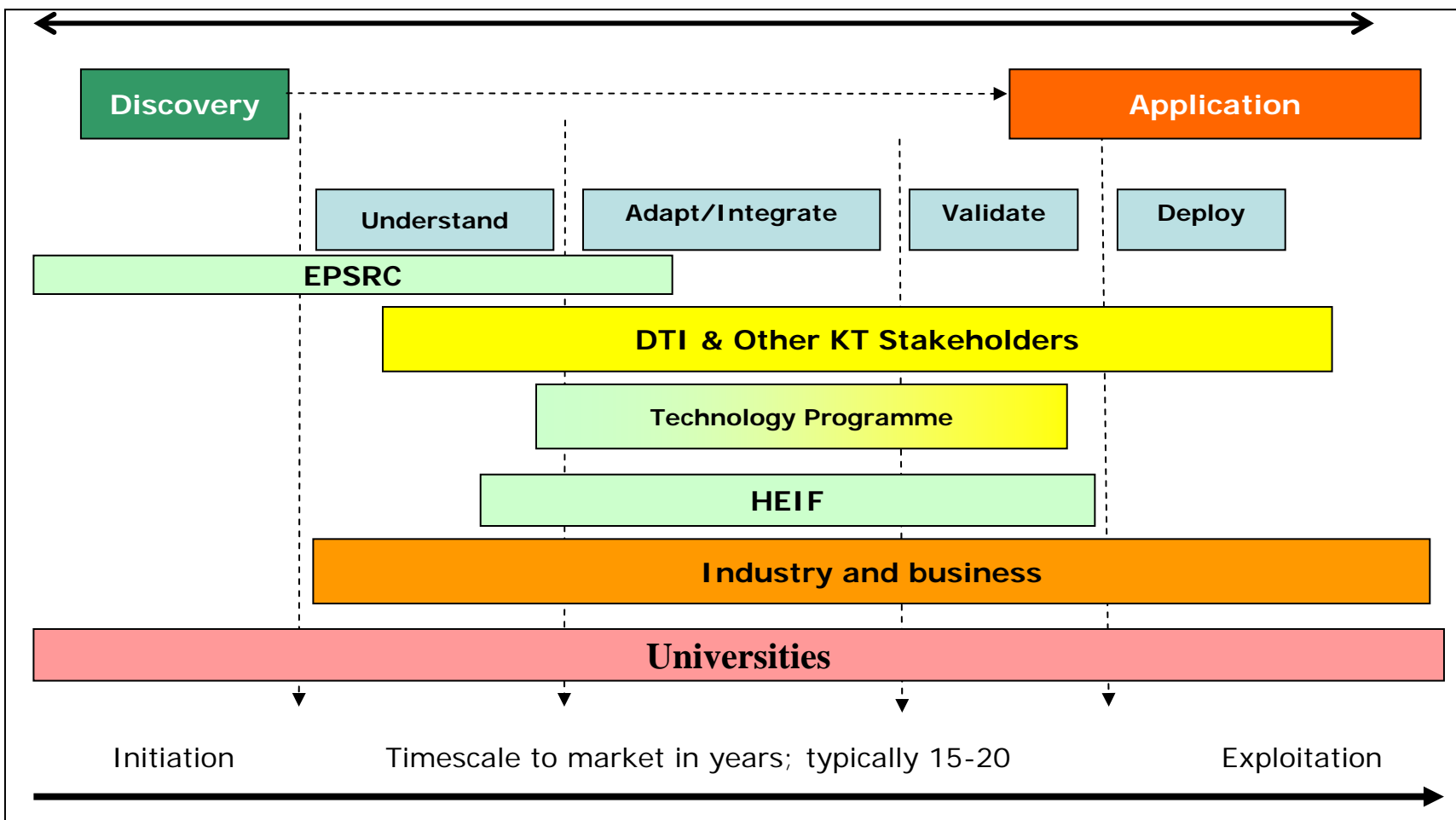
EPSRC

The Engineering and Physical Sciences Research Council

- We are the main UK government agency for **funding research and training** in engineering and the physical sciences
- We invest **over £700 million a year** to prepare the UK for the next generation of technological change

Knowledge and the market place

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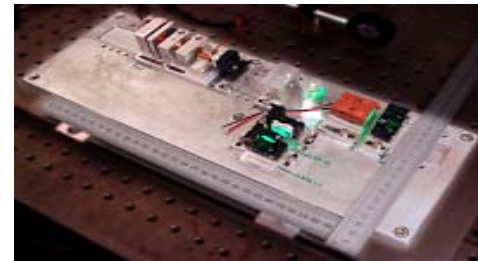


EPSRC Examples of KT from the Photonics Innovation Centre –Heriot Watt

- > Diode-Laser pumped solid-state lasers
 - Basic research EPSRC funded late 80's – mid 90's
 - Various industrial/MoD collaborations from mid 90's
 - Advanced prototype development through Photonics Innovation Centre
 - Joint venture spin-out '03 (PhotoSynergy Ltd.)
 - Route to market
 - Design for manufacture expertise
- > Mid-IR Hyperspectral Real-time Imaging
 - EPSRC funded basic research throughout '90's
 - Scottish Enterprise Proof of Concept Award completed '03 (spectroscopic imaging system for hydrocarbon gasses)
 - Royal Society of Edinburgh Enterprise Fellowship and Local Enterprise business and product development support awards '03-'05
 - Licence opportunity '05



PhotoSynergy





EPSRC EPSRC SPRU Study – Industry Perspectives on University Collaboration

Ranking of Incentives

- 1st Keeping abreast of academic research
- 2nd Access to problem solving capacity and university facilities
- 3rd Undertaking exploratory research
- 4th Lowering cost of research
- 5th Developing proprietary knowledge

Ranking of Barriers

- 1st Lack of public support and over regulation
- 2nd Conflicts with IPR and knowledge diffusion
- 3rd Inadequate type of university research
- 4th Lack of incentives within companies
- 5th Problems with ILOs
- 6th Difficulties locating suitable university partner



EPSRC EPSRC SPRU Study – Industry Perspectives on University Collaboration

Importance of Outcomes

- 1st Assistance in problem solving
- 2nd Creation of long term links to improve basic understanding
- 3rd Generation of new equipment, techniques and projects
- 4th Recruitment and training
- 5th Improved efficiency in innovative activity
- 6th Generation of patents

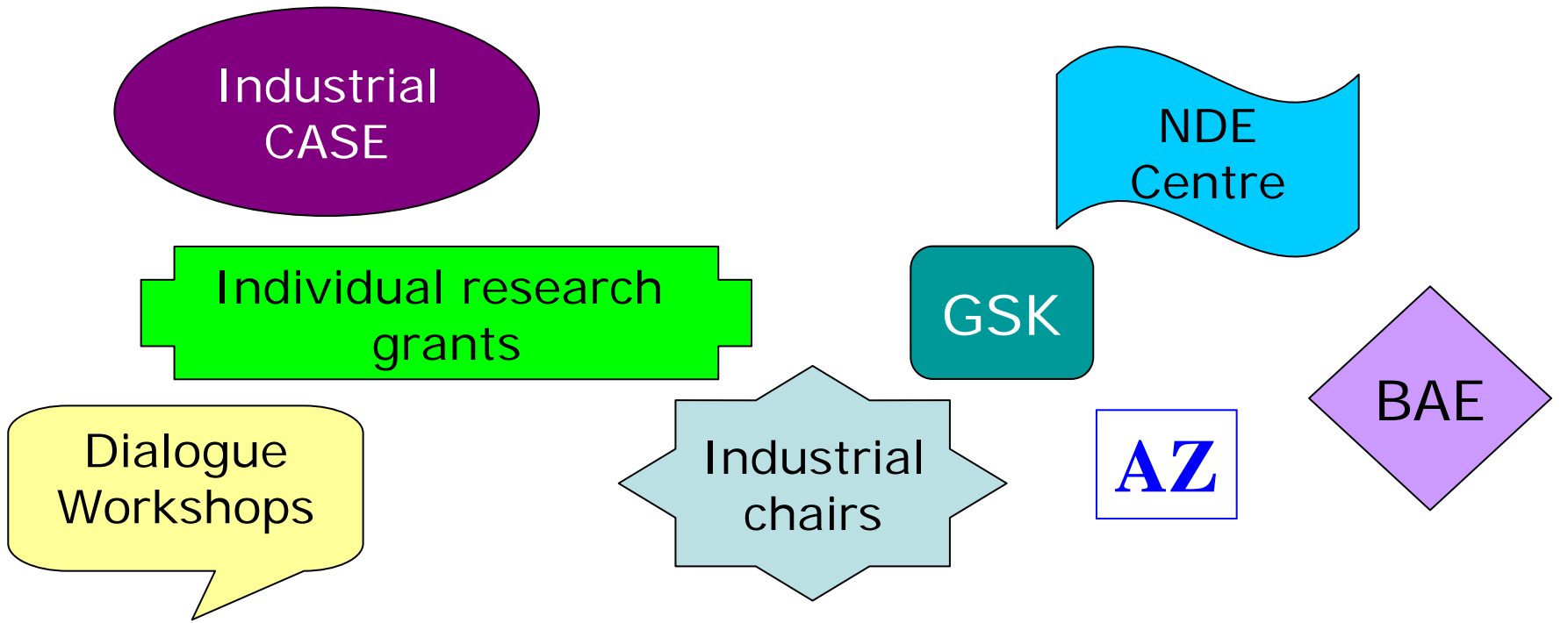


EPSRC Maximising economic impact: current collaborative engagement

- 40% research portfolio collaborative (i.e. over 2,000 grants/companies)...
- ...with leverage of £60M from collaborating partners to science base
- 40% training portfolio collaborative amounting to £50M from collaborating partners



EPSRC Collaborative spectrum



Inexpensive
Responsive
Introductory

Expensive
Strategic
Experienced



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Strategic partnerships

What is a strategic partnership?

- High level flexible agreement with long term direction
- Single company or group of companies
- Stimulate research or training in an important area

What checks do we apply?

- High quality as judged by peer review
- Research outcomes must be published
- No exclusive deals



EPSRC Models of strategic partnerships

- **Joint call for research proposals**
Combinatorial and Array chemistry calls with GSK
- **Joint Funded Research Chairs**
EPSRC co-fund a chair to attract a star recruit to the UK science base
(Civil Aviation Authority, BT, Rolls Royce)
- **Industry Club** plus matching EPSRC funding
National Research Centre (EngD) in NDE
- **Collaborative Institute (Virtual)**
Large scale complex IT systems



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Maximising economic impact: strategic partnerships

- 17 Strategic Partnerships, total value £126M (£57M EPSRC: £69M Partners)
- Significant additional leverage through other interactions:
 - Rolls-Royce UTCs - £31M total (EPSRC funding of £17M)
 - Microsoft estimate total co-investment of £6M pa with EPSRC



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Collaborator Survey April 2006

- Completed projects 2001-05
- 1300 individuals from 975 Companies
- 300 usable replies received (35% SMEs)
- 80% either satisfied or very satisfied that their expectations were met
- 60% improved "know how"
- 50% directly improved product or process (higher for SMEs)
- 33% high or very high overall value



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Successful Collaboration examples

- > ***Leyland Technical Centre (LTC)***
"We found EPSRC support very positive and absolutely appropriate for this kind of project."
- > ***Cambridge Insitu***
"We think EPSRC has it about right as far as we are concerned."
- > ***AstraZeneca UK Ltd.***
"This collaboration has **allowed us to develop a long term relationship with a key academic.** This will be of significant benefit to AZ and UK PLC."
- > ***Security Composites Ltd.***
"This thematic network **led to the building of a successful EU version** which my company participated in. The communication has led to **several outstanding new business ventures, securing jobs and moving the science of thermoplastic composites on to the next phase.**"