Knowledge Transfer at the National Physical Laboratory

Innovation through Knowledge Transfer 2009: Research with Impact

2 December 2009, Hampton Court

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NPL National Physical Laboratory

Summary

- NPL in context
- Knowledge Transfer at NPL
- KT Service Delivery

Welcome to NPL

NPL
National Physical Laboratory

Who we are

- A world-leading National Measurement Institute (Top 3 among ~55)
- 650 staff, 450 Graduate/PhD scientists - multidisciplinary
- BIS largest science and technology asset, but working across Government and Industry

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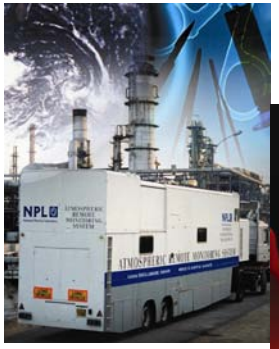
Background to NPL

- GOCO
- 100 years old
- Mission “to deliver the highest economic and social impact as a world leading NMI through excellent, responsive science and knowledge services”
- An RTO and PSRE

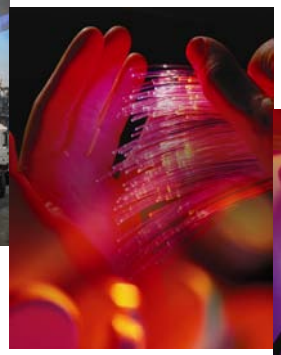
Metrology - 2009

Metrology influences, drives and underpins much of what we do and experience in our everyday lives, though often unseen. Industry, trade, regulation, legislation, quality of life, science and innovation all rely on metrology



Industry

Environment

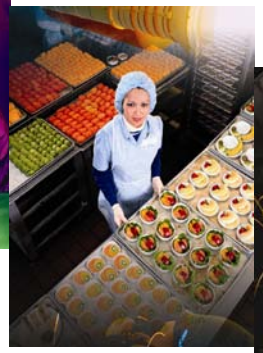


Science

Communications

Innovation

Healthcare

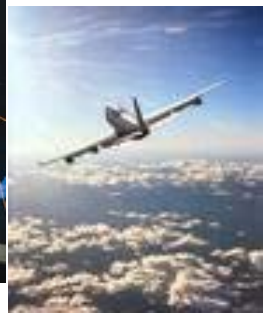


Regulation

Security

Health & safety

You and I



Transport

It is estimated that in Europe today we measure and weigh at a cost equivalent to 2%-7% of GDP

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Vision

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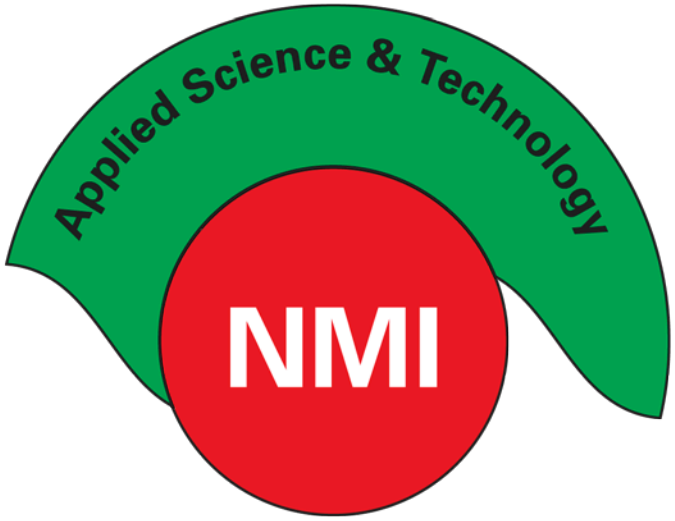
Vision



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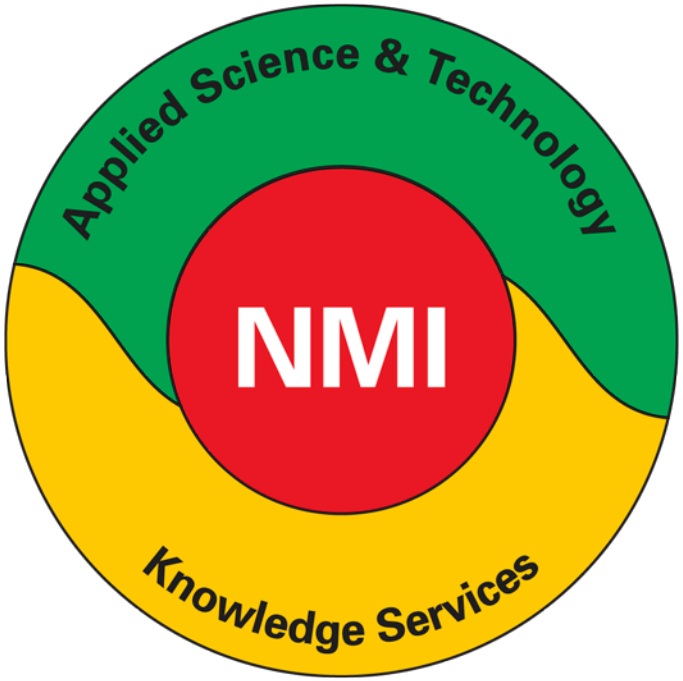
Vision



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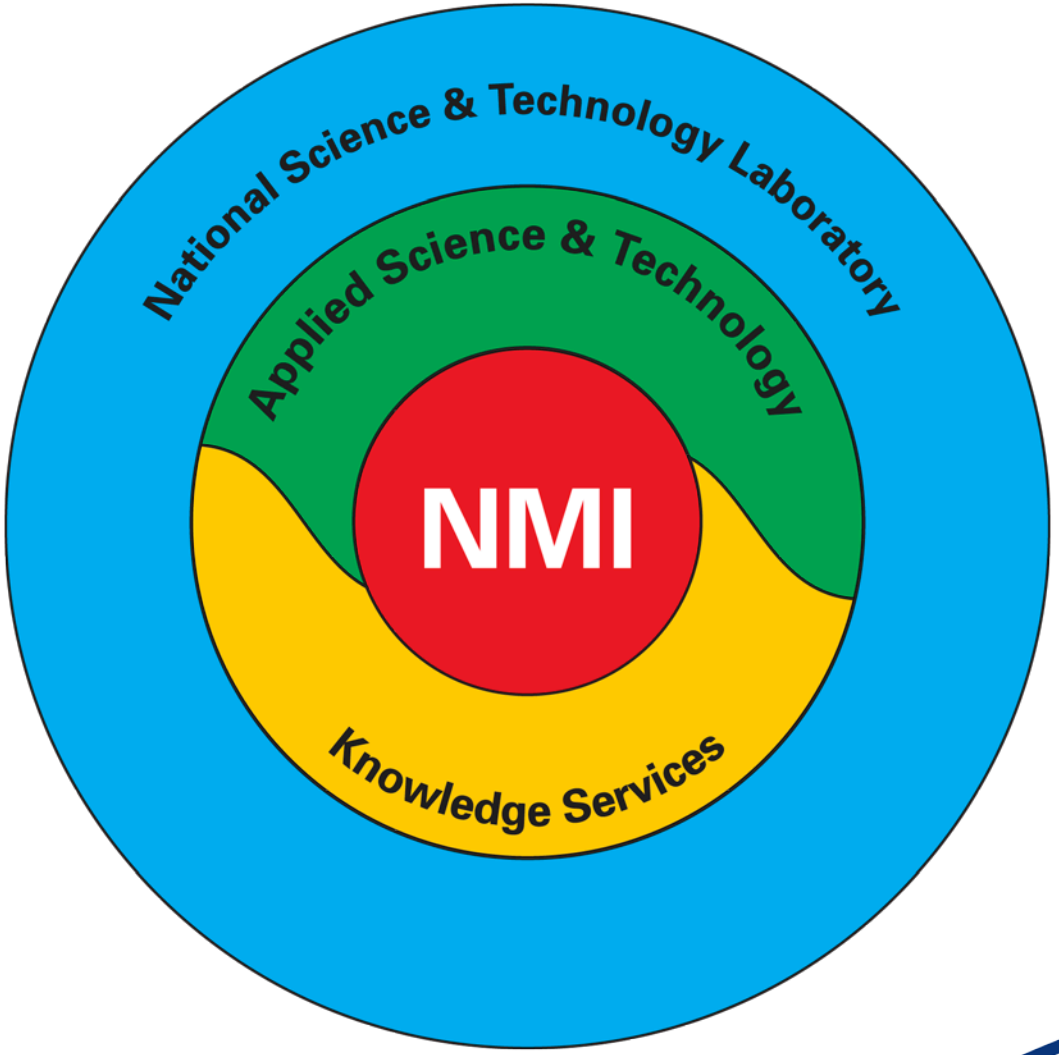
Vision



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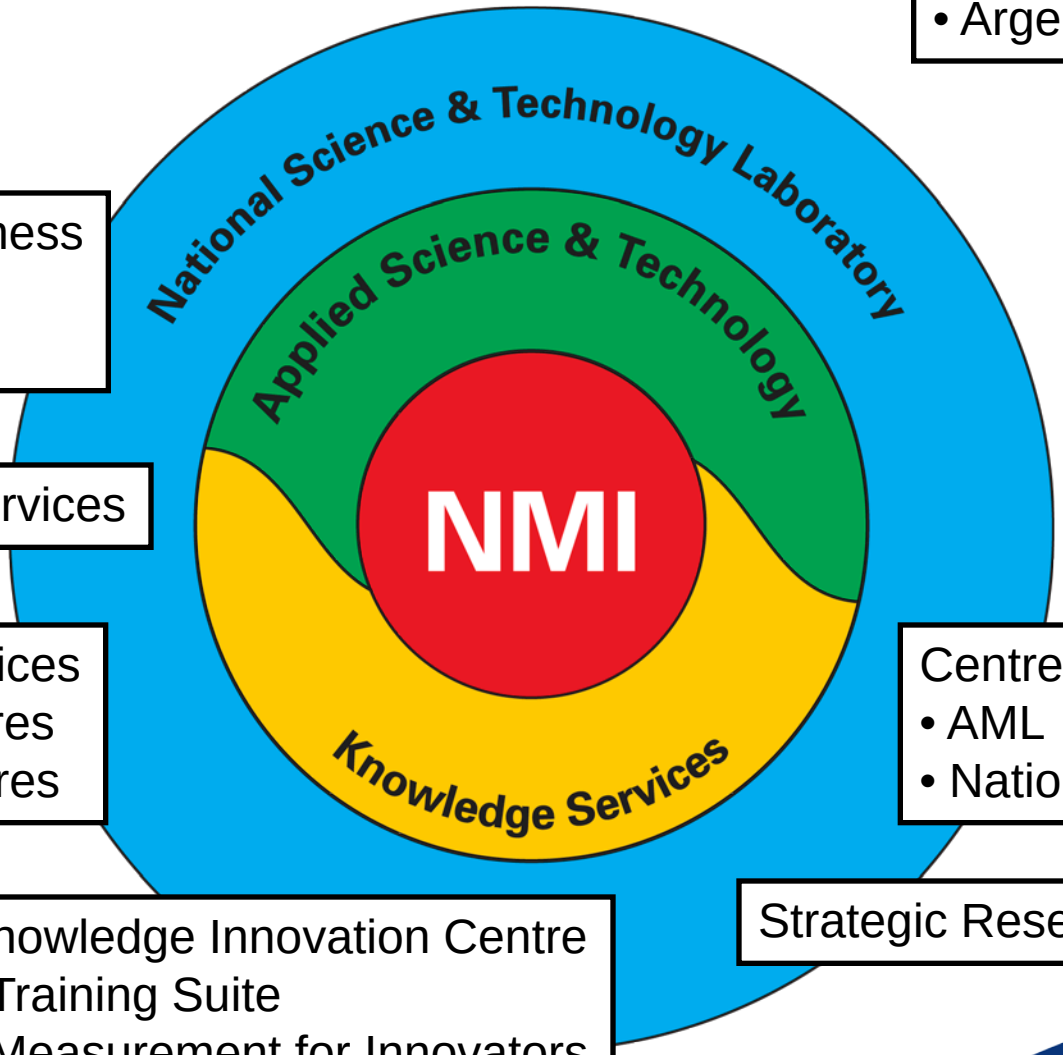
Vision

Spin-out Companies
• Argento

Emerging Business
• Data Security
• Low Carbon

Environmental Services



Calibration Services
• Regional Centres
• Industrial Centres

Centres of Expertise
• AML
• National facilities

Strategic Research

Knowledge Innovation Centre
• Training Suite
• Measurement for Innovators
• Hothouse for Talent

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Knowledge Transfer at NPL

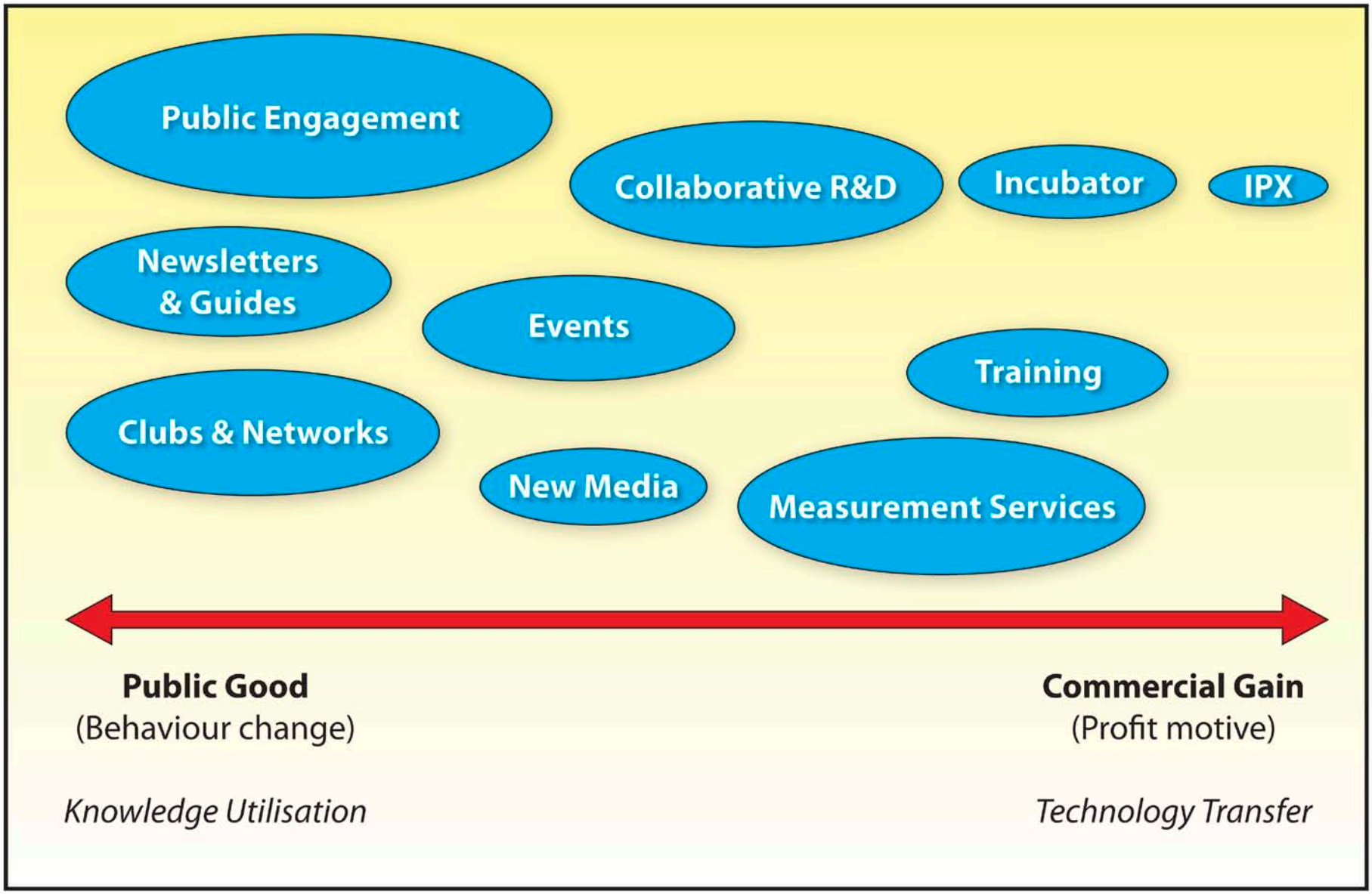

Figure 1. Knowledge transfer continuum at NPL

Newsletters & Guides

Clubs

- Electromagnetics
- Engineering Measurement Awareness
- Micro + Nano Technology Measurement
- Optical Technologies and Measurement
- Thermal Measurement Awareness

- Plus 11 more

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Events

- 65 KT Events pa
- 35 outreach, third party etc. pa

Training

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IP Exploitation

ARGENTO diagnostics

- New bio-sensor for quickly and reliably identifying blood markers
- Applications in sport, diagnostics, animal health
- Spun-out in 2009
- Tenant in NPL's Innovation Centre

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Knowledge Transfer at NPL

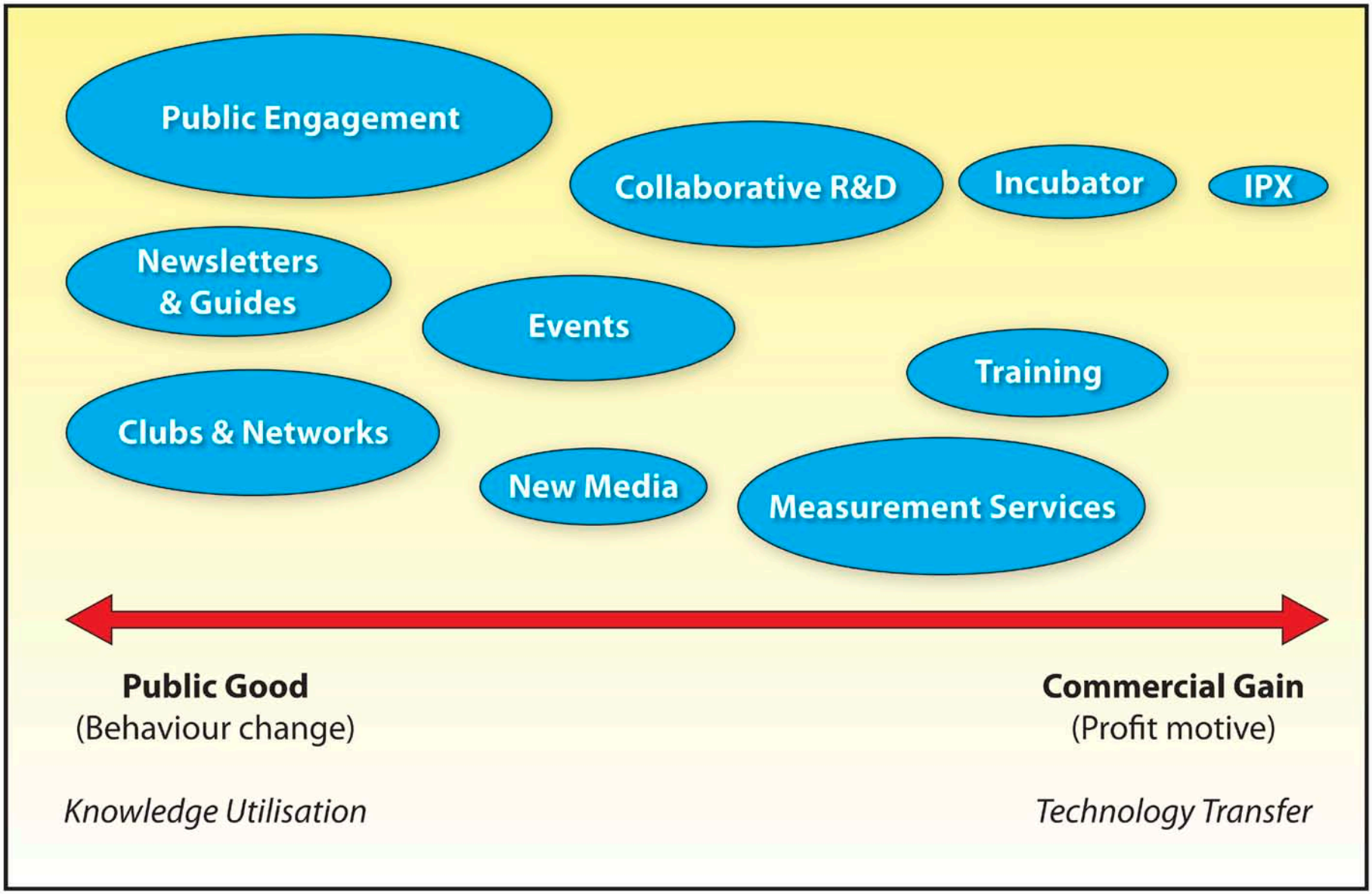
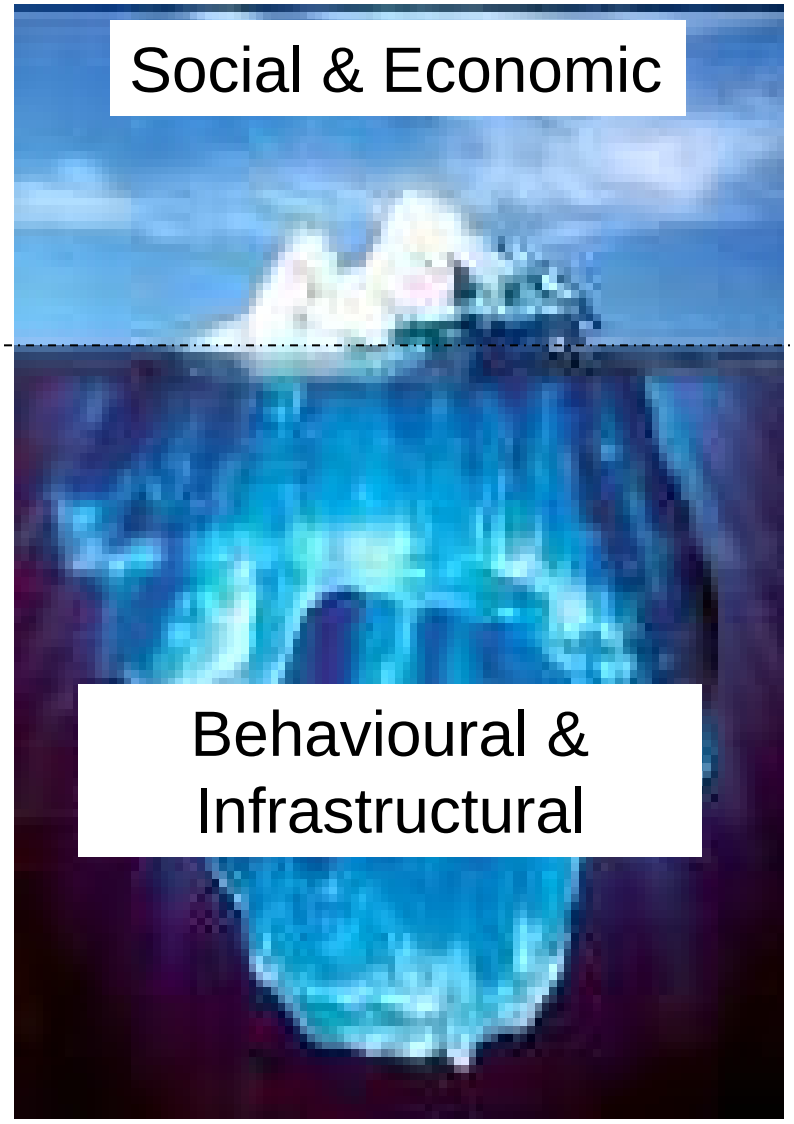


Figure 1. Knowledge transfer continuum at NPL

Knowledge Transfer Service Delivery

- Impact assessment leading to Surrey KTA
- Nuclear Decommissioning Authority
- Knowledge Transfer Networks

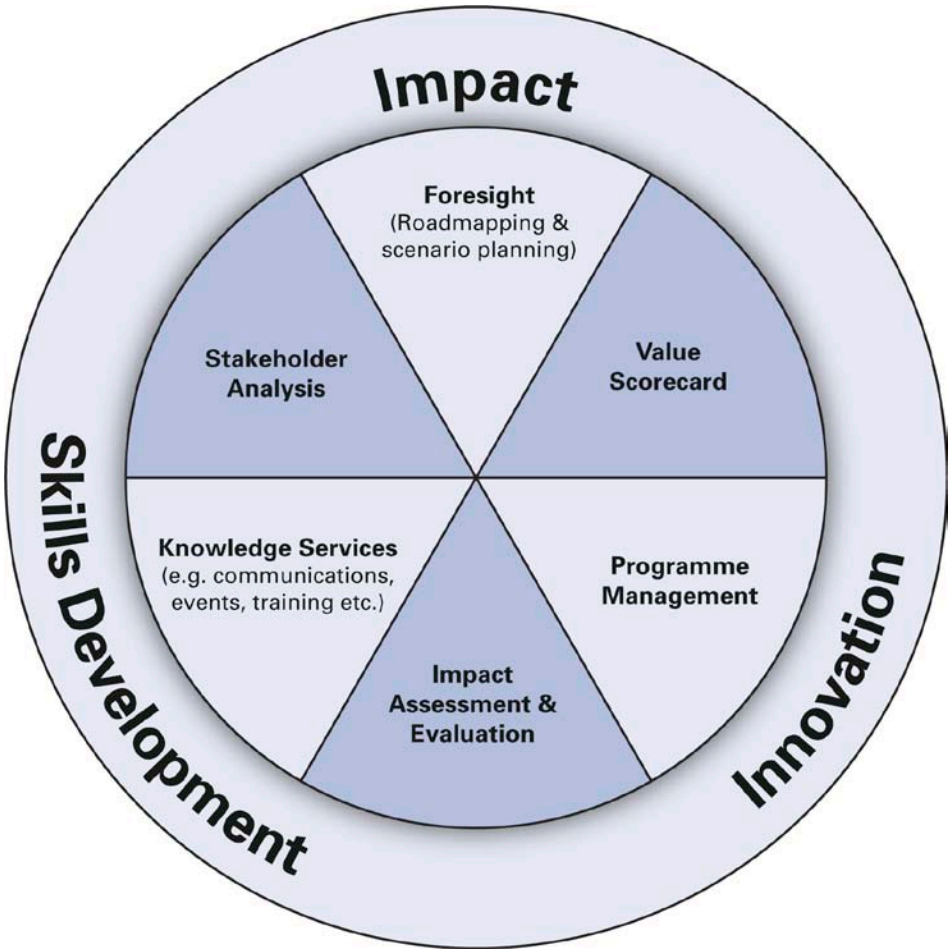
Impact Measurement



Measurable impact – quantifiable units. £'s, number of jobs created, patents, spin-outs….

Harder to measure – qualitative and often anecdotal

R4i2. Research for innovation and impact.



- Developed systematic approach to dialling in impact to programme formulation.
- Used to support impact assessment for other Public Sector Research Establishments and Universities (eg. Surrey University's KTA)
- Push for this approach to be more broadly adopted across other Government Departments

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Nuclear Decommissioning Authority - Impact Assessment

- The Challenge
  - To develop a methodology to assess value of university research for government agency
- The Approach
  - Stakeholder analysis
  - Best practice from industry, government and academia
  - Customer centric workshops
- The Outcome
  - Independent assessment of best practice adapted to the realities of the client
  - Methodology developed fit for purpose
  - Implementation advice for integration into current processes

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Knowledge Transfer Networks

Conclusion

- Distinctive approach to KT
- Stakeholder driven
- Reflected in the wide range of KT activities
- Formulated to deliver impact
- Valuable to compare to other approaches