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Impact driven knowledge transfer: meeting the needs of business and universities

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- Introduction to NPL
- How we do KT at NPL
  - Internal
  - External contracts: KTNs, KTA
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Context

- Fiscal environment
- Spending review settlement
- Radical changes to HE landscape
- Knowledge exchange with impact
- KT has become smarter
- Reality of Open Innovation
Chart 4.1: Public sector net borrowing

Per cent of GDP

We’re all feeling the squeeze
A bit about me

- 8 years in business
  - Large & Small
- 14 years in Knowledge Transfer
  - University
  - RDA
  - RTO/PSRE – incl. KTNs
- Now: Innovation Networks
Background to NPL

- NPL develops & disseminates UK’s measurement standards, and ensures they are internationally accepted
- Founded in 1900
- GOCO
- An RTO and PSRE
Background to NPL

- 700 staff, 500 Graduate/PhD scientists - multidisciplinary
- BIS largest science and technology asset, but working across Government and Industry
- A world-leading National Measurement Institute (Top 3 among ~55)
NPL’s Strategy

✓ Delivering excellent responsive science and knowledge services

✓ National and International status and influence: a world leading National Measurement Institute

✓ The NMI that best demonstrates social and economic impact

✓ Organic growth and step change initiatives to deliver a growing and sustainable business

We deliver science with impact
Knowledge Transfer at NPL
Figure 1. Knowledge transfer continuum at NPL
NPL KT contracts

National Measurement Network

Knowledge Transfer Network
ICT
Knowledge Transfer Network
Electronics, Sensors, Photonics

airto
making innovation happen

Knowledge Transfer Account

UNIVERSITY OF SURREY
National Measurement Network
Supporting UK’s high value SMEs

- Radiological Instrumentation
- Practical support for technical sales
- Improves internal knowledge management
- Validated third party data
Sensors & Instrumentation KTN

Knowledge Transfer Network

Electronics, Sensors, Photonics
<table>
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<tr>
<th>COMPONENTS</th>
<th>SUB-SYSTEMS</th>
<th>INSTRUMENTS</th>
<th>USERS</th>
<th>OUTCOMES</th>
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<tr>
<td>Sensors:</td>
<td>Wireless Networks</td>
<td>Analytical</td>
<td>Defence/Security</td>
<td>Profitable Manufacturing</td>
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<td>- Physical:</td>
<td>Autonomous Systems &amp;</td>
<td>Scientific</td>
<td>Aerospace</td>
<td>Resource Efficiency</td>
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<td>- Electronic</td>
<td>Robotics</td>
<td>Test &amp; Measurement</td>
<td>Space</td>
<td>Quality of Life</td>
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<td>- Photonic</td>
<td>Vacuum</td>
<td>Metrology</td>
<td>Scientific (Inc Research Facilities)</td>
<td>Leading Edge Science</td>
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<td>- Chemical</td>
<td>Cryogenics</td>
<td>Process</td>
<td>HealthCare</td>
<td>Improved Transport</td>
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<td>- Biological</td>
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<td>Control</td>
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<td>Built Environment</td>
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<td>Design Engineering</td>
<td>Software</td>
<td>Skills/Training</td>
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Sensors & Instrumentation KTN

- 1,298 active members (organisations) in the 12 months to June 2010
- 2,366 members
- Secured £97m of funding for members

Work continues through the ESP KTN
Location & Timing KTN

Knowledge Transfer Network

ICT
Surrey KTA

- Objective: to fully exploit research funded by EPSRC
- Focussed around 3 technology platforms
- Cash funding to build collaborative ventures
- Run in partnership with NPL
Why KT works at NPL

- Middle ground between Universities and businesses – external to both
  - Seen as: trusted, independent, credible, neutral
- Able to draw on NPL’s networks
- Close to market and impact driven
- Impact measurement in all KT
- Freedom to recruit and retain top talent
The way out of debt is trade: this is what the UK has done before
Conclusions

- KT needs to be innovative to respond to significant changes
- Open Innovation is a reality
- We need to focus on what we’re good at
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