

# **Phil Cooper**

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

Innovation KT 2011, Sheffield Hallam University 7 July 2011

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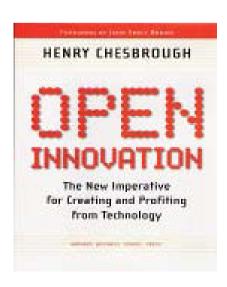


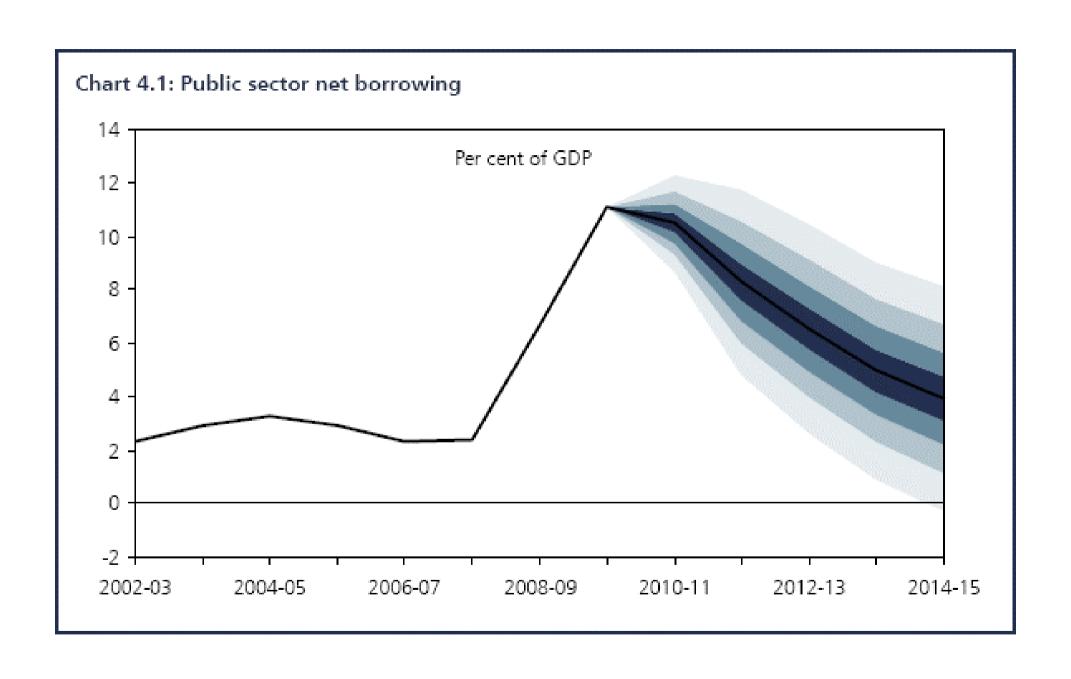
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#### **Context**



- Fiscal environment
- Spending review settlement
- Radical changes to HE landscape
- Knowledge exchange with impact
- KT has become smarter
- Reality of Open Innovation







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**



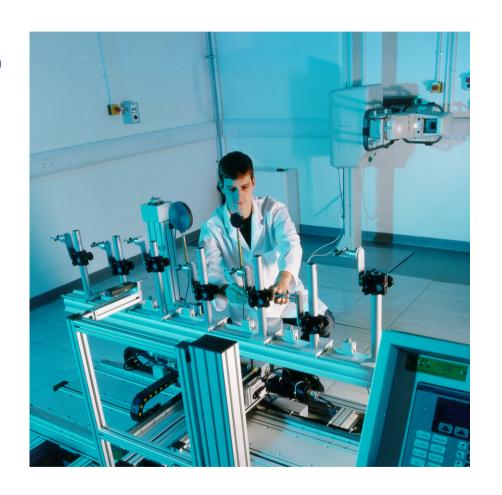
- NPL develops & disseminates UK's measurement standards, and ensures they are internationally accepted
- Founded in 1900
- GOCO
- An RTO and PSRE



# **Background to NPL**



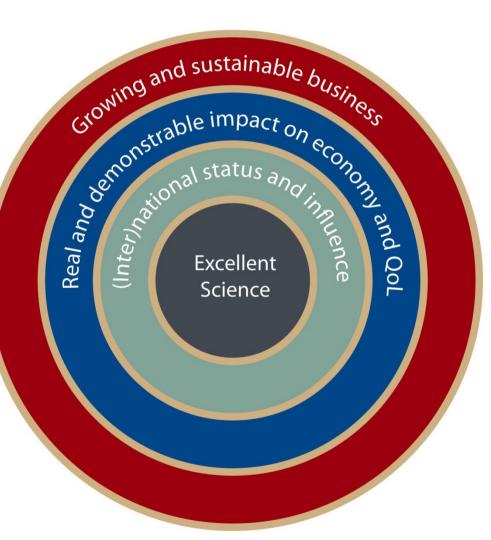
- 700 staff, 500 Graduate/PhD scientists - multidisciplinary
- BIS largest science and technology asset, but working across Government and Industry
- A world-leading National Measurement Institute (Top 3 among ~55)



# **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

## **Knowledge Transfer at NPL**



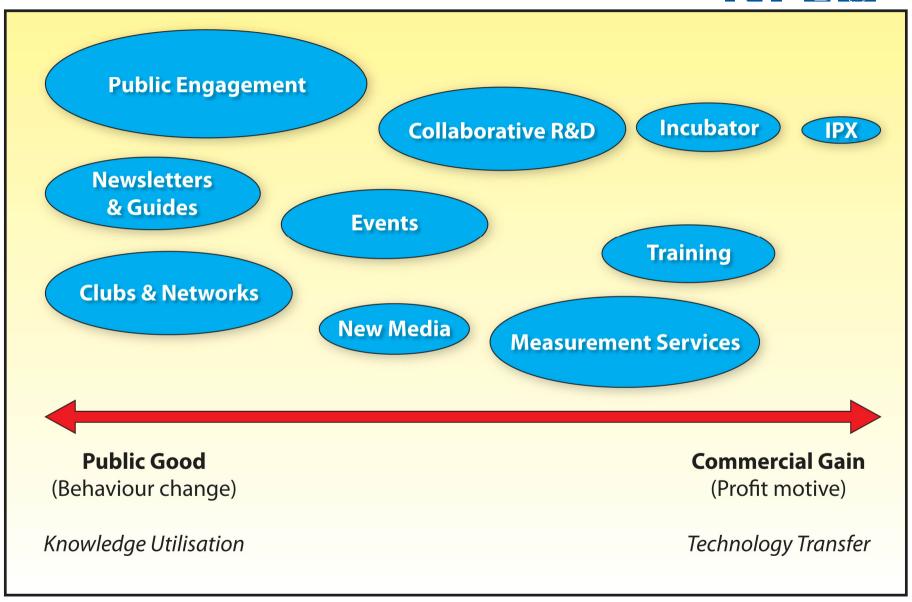


Figure 1. Knowledge transfer continuum at NPL

#### **NPL KT contracts**



National Measurement Network Knowledge Transfer Network

**ICT** 

Knowledge Transfer Network

Electronics, Sensors, Photonics







# National Measurement Network

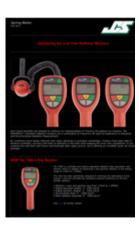
### Supporting UK's high value SMEs



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







#### **Sensors & Instrumentation KTN**



# Knowledge Transfer Network

Electronics, Sensors, Photonics

#### **Sensors & Instrumentation KTN**



COMPONENTS	SUB-SYSTEMS	INSTRUMENTS	USERS	OUTCOMES
Sensors:	Wireless Networks	Analytical	Defence/Security	Profitable Manufacturing
- Physical: - Electronic - Photonic	Autonomous Systems & Robotics	Scientific	Aerospace Space	Resource Efficiency
- Chemical - Biological	Vacuum	Test & Measurement	Scientific (inc Research Facilities)  Healthcare	Quality of Life
Optics/Photonics	Cryogenics	Metrology	Life Science	Leading Edge Science
	Imaging	Process	Built Environment Environmental	Improved Transport
	Displays	Control	Automotive Semiconductor	Secure Information Technology
	Distributed Computing	Embedded Systems	Industrial Arts & Heritage	
	Power Systems	Embedded Systems	Food	
UNDERPINNING CAPABILITIES				
Packaging	Design Engineering Softwa		re	Skills/Training
Fabrication (inc MNT)	Electronics Signal		Processing/Analysis	Measurement Standards
Materials	Systems Engineering Modelling		ng & Simulation	Certification
Electrical Engineering				

#### **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





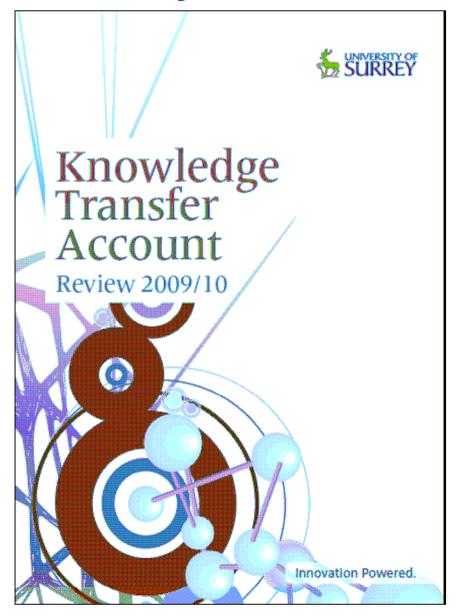


Knowledge Transfer Network

**ICT** 

## **University of Surrey**





# **Surrey KTA**

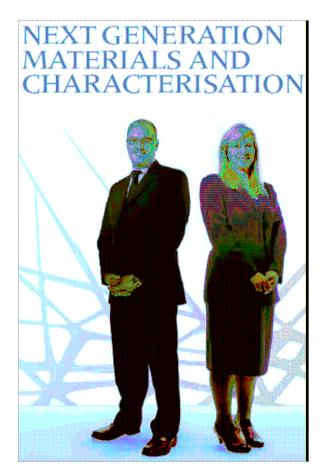


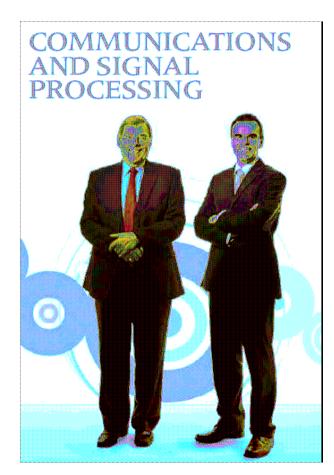
- Objective: to fully exploit research funded by EPSRC
- Focussed around 3 technology platforms
- Cash funding to build collaborative ventures
- Run in partnership with NPL

# **Surrey KTA**









**Prof Ravi Silva and Tiju Joseph** 

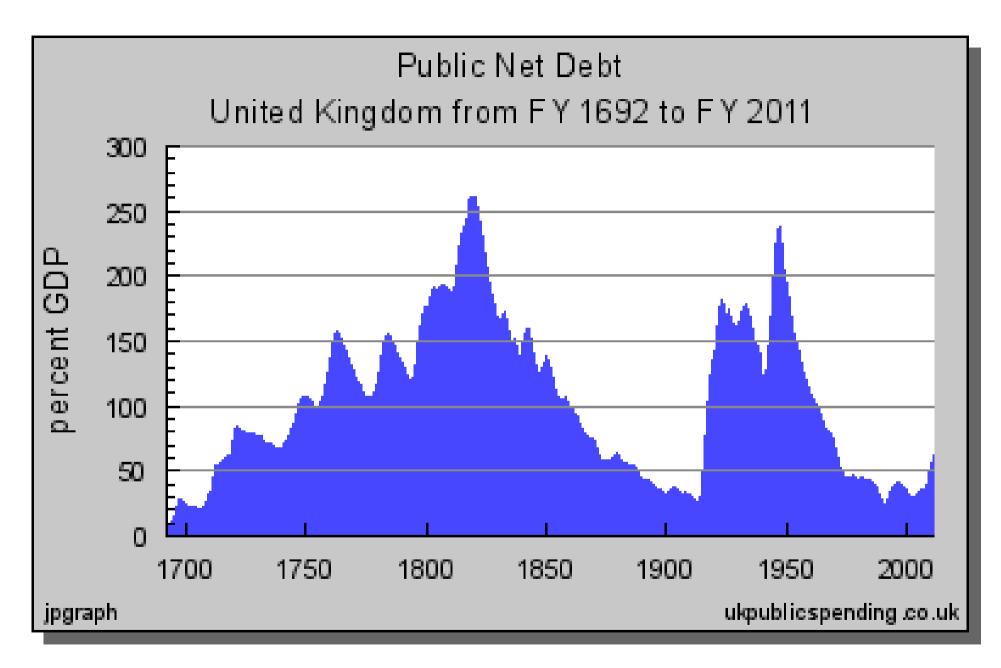
**Bevan McWilliam and Prof Karen Kirkby** 

**Prof Barry Evans and Peter Lancaster** 

# 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



#### **Contact details**



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