

# The Sunday Times University of the Year 2008-2009



## University/Business Interactions

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**Professor Shirley Pearce**

Vice-Chancellor, Loughborough University

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# Loughborough Partnerships

- Rich pattern of University and Business/Industry interactions
  - Industrial placements
  - Research – industry funded and collaborative research
  - Licensing of IP and Spinouts
  - Consultancy
  - Graduate recruitment
  - Sponsored programmes and/or students
  - Staff development – CPD, Eng Doc, Masters Programmes, be-spoke training
  - Facilities – technical, research, conferences
- Diversity in application
  - Each 'partnership' will have a different range of these interactions
  - Different universities do different things
  - SMEs and FTSE 100 have different needs

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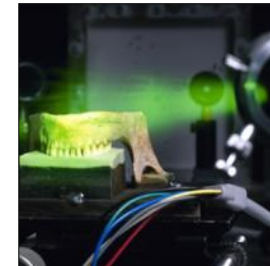
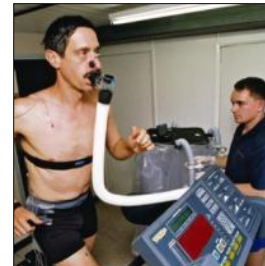
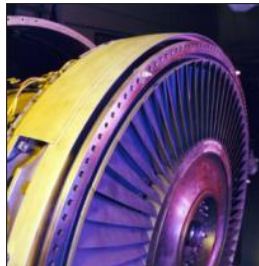
# Why effective business/university interaction is essential:

- **Research**
  - Ensures high quality research that improves economic performance
  - Fosters innovation and the translation of research into practice
- **Teaching and Learning**
  - Informs curricula to ensure skills base matches industry needs
  - Helps students get 'real life' experience in work placements and internships
  - Fosters high quality CPD for existing workforce
- **Enterprise**
  - Generates economic and social impact
- **Sustainable operations**
  - Broadens the funding base for higher education
  - Facilitates transfer of skills/best practice/VFM between sectors



# Models of working: The Rolls-Royce UTC

- UTC's – University Technology Centres
  - Known to many of you
  - Developed by Rolls-Royce
- Loughborough's UTC
  - Professor Jim McGuirk and colleagues
  - Combustion aerodynamics
- Features
  - Benefits to RR and to the University
  - Enabled joint planning, longer timescale and stability





## Other Models of working:

- SEIC (Systems Engineering Innovation Centre)
  - Bold initiative to address complexity of *systems* engineering
  - Co-location of industry and university staff is key
  
- Caterpillar Innovation and Research Centre
  - First such centre outside the US
  - Built on a solid record of collaboration
  - Suitable IP framework crucial



Gwenne Henricks, Caterpillar Vice President, Industrial Power Systems Division and Professor Shirley Pearce, Vice Chancellor

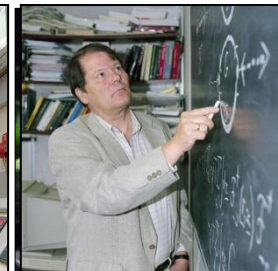
# New Models: ETI (Energy Technologies Institute)

- ETI
  - Public/Private Partnership
  - Major industrial players (Shell, BP, Caterpillar, EDF, EON, Rolls Royce)
  - 10 year initial term
- Midlands Energy Consortium
  - The Midlands 'host'
  - Three Universities – Birmingham, Loughborough, Nottingham
  - RDA cross border funding – emda and AWM
  - Wider benefits beyond ETI – Midlands Energy Graduate School



## The Midlands Energy Consortium

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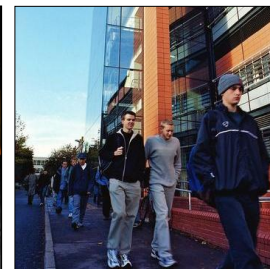
# New Models: Midlands Manufacturing Technology Centre

- Industry
  - Rolls-Royce, Airbus UK, Jaguar Land Rover, Aero Engine Controls
- Academia
  - Birmingham, Loughborough, Nottingham, TWI (The Welding Institute)
- RDA
  - £40M investment in a new Centre
- MTC will
  - “develop business-led applied research in advanced manufacturing....focus on the development an application of high integrity joining and fabrication, expertise in tooling, automation and operational performance....”



# The landscape is changing

- A wave of reports and initiatives
  - Stronger Together
  - New Industry New Jobs
  - CIHE reports
  - Dyson Report - Ingenious Britain
  - Hauser Report- Technology Innovation Centres
- Stronger Together highlighted actions for
  - Industry:** Financial support, placements, research
  - Government:** Encourage diversity of provision, emphasis on part-time
  - Universities:** Increase quality, skills/workforce training

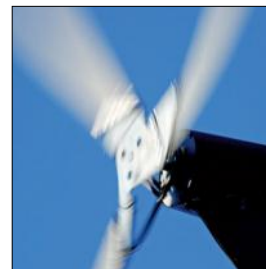
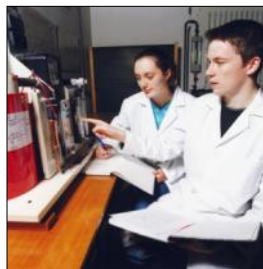




# Culture – making the models work

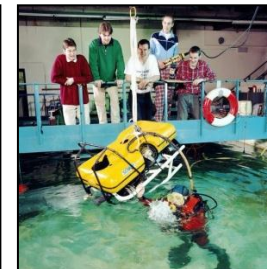
- Differences
  - Goals – the differences may be less as HE seeks to be more self funding
  - Staff identity and allegiance – is there a shared commitment to disciplines?
  - Timescales – educational programmes are long term but we *can* move fast!
- Similarities
  - Communications – all work in large and complex organisations
  - Partnership Management – holding contacts close is true everywhere
  - Increasing value – do we make the most of the links we have?

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# Conclusion

- No single model of effective interaction
- Different *industries* will develop different *models* with different kinds of *universities* for different sets of *outcomes*
- To prosper we must
  - Embrace new approaches
  - Develop and share in new ways of working and new business models
  - Find effective ways to show benefits to all partners **and** to the public good
  - ***Focus on the people at the heart of the partnerships***



# Impact

- Impact
  - REF
  - Impact is about so much more
  - Showing public benefit is vital when public funding is short
  - New business models require that we can **show** they add value
- How do we measure impact of collaborations?
  - Immediate impacts – papers, conferences, grant income, patents
  - Long term – real changes in the economy
  - Broader than research – the skills agenda, education programmes
  - Industry has always had to show the bottom-line financial value

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