The increasing importance of the role of universities in society

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Summary

Talk to cover three themes:

1. How universities contribute to economic prosperity
2. Government investment in HE and the impact agenda
3. Global research concentration and international collaboration
Universities as contributors to national prosperity

• Winning the global race for jobs and wealth – the role of universities
• By 2020, 82% of new jobs in the UK will require a degree
• Top 10 ‘in demand’ jobs in 2010 were in industries that did not exist in 2004
• Two thirds of growth between 2000 and 2007 came from knowledge intensive sectors of the economy (and 2% of job losses)
• Universities are a crucial partner in economic growth
Universities as contributors to national prosperity

- The UK has a leading HE system – 7th largest export industry worth £10.2bn per year
- UK universities on track to generate £17bn annual export earnings by 2025
- Lord Sainsbury’s Review, *The Race to the Top* (2007) is the best available analysis of how science and research policy relate to economic growth
Universities as contributors to national prosperity

• Logic of Sainsbury’s argument is to fund research *selectively*

• In the UK, out of 110 universities:
  - c.80% research funding focussed on 25 institutions
  - concentration of PhD training in Doctoral Training Centres

• Debate about the ‘right’ distribution of research resources

• Leading universities must compete in a global market
Global Investment in Higher Education

• Economic recovery has begun, but it will take time
• Massive growth in Indian and Chinese economies
• Total investment in higher education as proportion of GDP:
  • UK (1.4%)
  • US (2.8%)
  • Japan (1.5%)
  • OECD average (1.6%)
• UK public investment in HE is only 0.7% of GDP
Research and demonstrating impact

• Research Excellence Framework and the impact agenda
• Impact worth 1/5 of grading in new research assessment rules
• New knowledge and innovation has generated at least two-thirds of productivity growth in the UK over the past 10 years
• Public engagement agent
  ➢ *Exeter Catalyst Project*
Global research performance

- Universitas 21 rankings: UK is 24th on resource inputs and 2nd on outputs
- Japan is 25th on inputs and 14th on outputs
- Japan – fourth most successful education superpower (*Learning Curve*)
- Research concentration
Global research concentration

- **Japan**: ‘Leading PhD Initiative’
- **US**: doctoral degrees offered by only 614 (out of 7018) universities
- **China**: pursuing world-class status for a maximum of 39 and a minimum of 9 universities (C9) out of 2300 institutions (Project 985)
- **Germany**: £2bn to create 37 clusters of research excellence and 9 world-class universities
- **France**: 33 (out of c.160) universities, got 2/3 of the resource in 2010
- **South Korea**: Brain 21 Programme
International Research Collaboration

• ‘The Fourth Age of Research’ (Jonathan Adams, Nature)
• Most highly cited work is international (50% increase with papers with authors in more than one country)
• In 2011: 48% of UK papers had no overseas author (down from 85% in the 1980s)
• US: 67% of research is still domestic (1981: 94%)
• China: 75% of research is produced in-country
• Growing divide between international and domestic focussed institutions
International Research Collaboration

• UK & US: international collaboration = adds 20% to average citations

• UK: 2001 publications: 1.21 world average levels of citation
  2011 publications: 1.47 world average levels of citation

• Papers with at least one international co-author: rose from 1.48 to 1.72 world average citations (2001-2011)

• 65 UK HEIs with <40% international co-authored papers: 1.1 world average citations; 10% of research funding; 5% research grants; 1% of research council studentships
Concluding Remarks

- How do we win the global race?
  1. Need public investment in higher education
  2. Concentration of research funding
  3. Promote international collaboration
  4. Invest sufficiently in R&D
  5. Embrace the marketisation and internationalisation of HE
Thank you for listening

Questions and Answers

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