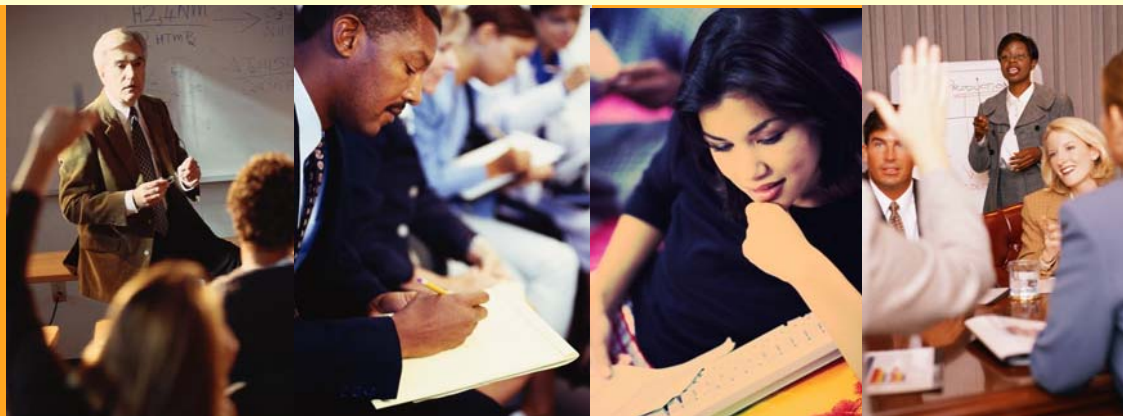


# International Competitiveness

*Businesses Working with UK Universities*

**Summary and Recommendations**

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The Council for Industry and Higher Education



## International Competitiveness Businesses Working with UK Universities

### Preamble

At its May 2005 meeting, the Council for Industry and Higher Education (CIHE) launched a major study to seek the views of a wide range of multinational businesses on the competitiveness of UK higher education.<sup>1</sup> We wanted these views to be informed by their purchasing and investment decisions: why graduates are recruited from one university\* in one country rather than another, why research is placed with one university rather than another and why one business school rather than another is chosen for management and leadership development. We also wanted to understand the decision making process: whether decisions were devolved to business units or determined centrally and whether the process is changing. The aim was to carry forward the review by Richard Lambert<sup>2</sup> to better inform the UK Government, devolved administrations and UK funding councils, as well as universities, businesses and business led organisations on how higher education might contribute still further to the competitiveness of the UK.

In December 2005 we issued an interim report<sup>3</sup> that drew together data and offered a commentary on issues related to research. This final report reflects the views of businesses on the whole gamut of their relationships with universities. It highlights certain crosscutting themes and draws conclusions and recommendations. A range of case studies illustrate and give depth to these themes. As well as wishing to see our recommendations implemented, we hope that the information in this report (including in the case studies) will better inform all parties and be a useful mine for all those interested in university/business relations.

### Acknowledgements

Our work has been guided by a broadly based Advisory Group whose membership is detailed in **Annex D**. The work has been funded by all the UK higher education funding councils, Universities UK and the Careers Services Unit. **Annex C** lists the individuals from a wide range of organisations who have kindly offered their views and given us considerable and sometimes confidential insights and supporting evidence. Our interviews with company Chairmen/CEOs and their equivalents have been undertaken with Richard Greenhalgh (CIHE Chair and recent Chair of Unilever UK) and James Ross (CIHE Trustee, Chair of the Leadership Foundation for Higher Education and past Chair of National Grid).

We are extremely grateful to all these organisations and individuals. Responsibility for the final analysis, conclusions and recommendations however rests with us.

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\*Throughout this report we often refer to "universities" to mean the diverse range of higher education institutions that make up the system of higher education in the UK.

<sup>1</sup> See *International Competitiveness: Setting the Scene*, CIHE July 2005.

<sup>2</sup> [www.lambertreview.org](http://www.lambertreview.org)

<sup>3</sup> *Higher Education – Meeting International Business Demand*; CIHE, December 2005



## International Competitiveness Businesses Working with UK Universities

### Summary

#### Overview

The future of the UK will be largely determined by the international competitiveness of our multinational businesses. Those that are domiciled in or operating from the UK need outstanding leadership and management and continuous innovation. In a global economy they have to react to the twin forces of advanced global communications and the opening of markets worldwide. Innovation (the successful exploitation of new ideas) has to underpin ever higher value-adding products, services and processes. These businesses look to the best universities for future talent, research and business education to help provide them with a competitive edge.

The same is true for the UK. Along with other western countries we cannot compete against the growing power of China and India on the basis of price or on the volume of technical graduates:

- Knowledge is no longer the preserve of the few. Broadband networks, fixed and wireless, and their ever falling price means knowledge is available to individuals and teams around the globe; networks are changing the way we all do business, learn and innovate;
- Global access is making the world both increasingly flat and interconnected<sup>4</sup> and also spiky with clusters of excellence; wealth revolves around these clusters that have world-class universities at their core;<sup>5</sup>
- The opening of markets worldwide means that Asian graduates, equally technically qualified as those in Europe and North America can be hired at low cost; the supply is rapidly increasing;
- Unlike the USA, the EU cannot offer generally superior research power; the USA undertakes some 37% by value of the world's R&D; the annual investment from Federal agencies alone is some \$56bn; the EU seemingly does have the resolve to invest serious amounts in research and a knowledge future;
- Finally, the huge and growing markets of Asia offer major business opportunities for European and other Western companies; much research that is best placed near major markets will migrate there and Asia increasingly offers a favourable business climate.

For the UK to compete in this challenging landscape we have to fully exploit our own competitive advantages. The central thesis in this report, based on what the leaders and senior managers from a wide range of multinational businesses have told us, is that UK higher education lies at the heart of this advantage. This is because:

- In a multi-cultural society our universities develop world-class knowledge and world-class graduates in a diverse system with probably the most culturally diverse student body in the world. Overseas students bring a constantly renewing range of new and challenging perspectives. Diverse teams can create the dynamism for innovation;
- Our system of higher education differs from most other systems in having problem-based learning at its core. This process of challenge and enquiry reinforces the potential for innovation;
- Given the right policies we can build on our clusters of excellence to remain world-class, whilst accepting we may need partnerships to be competitive in all fields;
- The future is about quality above quantity. The future of the UK is inextricably bound to a successful high quality education system.

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<sup>4</sup> See Thomas Friedman, *The World is Flat*.

<sup>5</sup> See, e.g. Richard Florida *The Rise of the Creative Class and The Flight of the Creative Class*.

## The Forces for Change

The rapid and sustained growth of the economic giants in Asia is transforming the world. It is forcing all countries and businesses to redefine their relative competitive advantage and adapt accordingly. The search for best value is leading an increasing number of businesses to outsource to the lower cost and increasingly skilled workforces in Asia. At the same time it is leading them to develop higher added-value products, services and management approaches and look for innovative solutions in countries where there is intellectual fire-power that can think laterally and offer solutions not just to today's problems but also tomorrow's. As a leader in one world-class engineering business told us: "after solving the current problem, the UK university team then told us about the next problem we had not even thought about. That is why we do business with them."

Continuous innovation is at the heart of our economic future. No organisation can be immune from the worldwide pace of change. Even in the non-internationally traded sector that makes up the majority of the economy, corner shops need customers who have the income that flows ultimately from international businesses. These businesses can invest anywhere. How, why and whether they invest in the UK affects us all. If satisfying shareholders led them to invest largely overseas then they might still prosper; but the rest of the UK would not, with worrying economic and social consequences. If our universities can develop the research, graduates and leaders that multinational businesses need, then they are more likely to invest here. Their UK based supply chains could then also benefit (provided they too innovate to offer better value than overseas competitors). If universities meet the needs of multinational businesses then by definition they will be world-class. They would then be poised to transfer that world-class knowledge for the benefit of all UK based organisations, communities and lifelong learners.

While universities perform a wide range of roles including developing a more cohesive, caring and cultured society, they are also international businesses. They compete worldwide for the best students, lecturers, researchers, leaders and business income. Global league tables and global channels of information influence individual choice and business investment decisions. Major businesses recruit from universities that develop graduates with an international awareness who can communicate across cultures; they look for business schools that can offer management and leadership programmes with an international perspective. By thinking and acting globally as well as locally, universities attract wealth to the UK.

Multinational businesses are increasingly centralising their decision-making processes to have an enhanced global perspective. Global interactions including with universities are replacing linear and horizontal modes of working and are undermining geographic convenience and relationships built solely on history.

## The UK's Competitive Advantages

The leaders of the international businesses we have interviewed have suggested that the UK's relative competitive advantage rests on a number of interlinked factors:

- the strength of our international heritage, outlook and culture combined with our general tolerance of the views of others; diversity is a strength and encourages innovation;
- our willingness to challenge received wisdom and to identify and solve problems; not all cultures and countries accept and respond to such challenges so readily;
- our ability to absorb and mould a range of ideas and see novel patterns particularly through multidisciplinary approaches; the UK has strengths in the arts and social sciences that augment those in the natural sciences – again not the case in all countries;
- our strong science base and our university system - not just the internationally known university brands; the overall breadth and quality of our offering is at least as good as in any other country.

**They consider that higher education lies at the heart of our competitive advantage;** that the UK develops some of the best graduates and research in the world; that our problem based approach to learning underpins this advantage. So while India and China produce high quality graduates in science, technology, engineering and maths (STEM) disciplines on a scale that far outstrips that of Western Europe and the USA, their graduates are less strong at creativity, at challenging received wisdom and assumptions or developing solutions based on a fusion of multi-disciplinary and multi-cultural views. UK graduates are less likely to have

been brought up in a monoculture, learned by rote or in large impersonal lecture environments. Our quality systems help ensure the UK has a controlled reputational range that probably no other system can match.

These strengths have to be preserved. Businesses see quality as uneven, research being valued over teaching, early specialisation in schools limiting choice and the study of STEM subjects, an undervaluing of exploration and self-learning and market failures that lead students to take ill informed decisions on subjects and options and an undervaluing of quality placements and practical experience.

## An International Strategy for UK Universities

Global businesses need increasing numbers of graduates who display the qualities of the best that the UK can offer. If the UK could become the preferred worldwide location for aspiring mobile graduates from around the globe, then these businesses would recruit and develop them and send them to help run their expanding worldwide operations. The students that come to the UK have often already displayed the qualities of drive, determination, ambition and command of languages that make them a self-identifying cadre of potential leaders. The cultural diversity and style of learning offered by our system of higher education can reinforce these attributes and increase their innovative and leadership capabilities. Businesses want to see this as part of a wider strategy to internationalise our universities, including through partnering with those in Asia and in developing countries. UK universities can help raise the quality of learning around the world.

The UK should be particularly attractive for overseas students because the senior teams of UK based multinationals are generally from a wider range of countries than non-UK based companies.<sup>6</sup> Both higher education and businesses therefore have much to gain from working together to attract the best students and researchers to the UK and build learning partnerships around the world.

Offering value for money is important if universities are to continue to attract students from non-EU countries and persuade businesses to accept the reality as well as the principle of Full Economic Costing (FEC). The UK higher education sector is already one of the most efficient in the world. It might further improve its value offering and its capabilities by adapting its business model and partnering with complementary lower-cost operations especially in Asia. Combining the lateral and innovative capabilities of leading UK academics with the high quality technical and statistical expertise of Indian universities for example could help UK universities offer compelling packages to multinational companies.

Aiming to be the preferred worldwide location for mobile students and research is a strategy for the whole sector. Excellence exists across the UK including in vocationally oriented, laboratory and speciality courses (analogue chip design at East Anglia, retail design at Bradford, psychology and neuroscience at Bangor and health economics at Kent have been quoted as examples by businesses).<sup>7</sup> So while multinationals may target particular universities to ensure their brand is in the mind of the best students, they recruit through the web, are open to all and seek a range of capabilities irrespective of university attended.

While our study is focused on major businesses, smaller businesses also need quality graduates who display many of the characteristics that larger businesses look for. They need universities to help them raise their absorptive capacity for innovation. Many could look to universities to be their window on the world.

*The evidence from this report supports the priority the Government places on higher education being at the heart of the UK's international competitiveness strategy. It supports the argument that higher education should continue to have commensurate priority in the allocation of Government funding and that all Administrations and Departments coherently implement policies that recognise the significance of higher education in promoting competitiveness and a more cohesive society.*

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<sup>6</sup> 75 companies per EU country were surveyed by the Economist Intelligence Unit; 26 of the UK companies were led by foreigners against 2 in France, 3 in Scandinavia and 12 in Germany (as typical examples); EIU quoted in FT 21/12/2005.

<sup>7</sup> While some 75% of RAE funds go to some 25 universities, more than 70 universities have at least one 5\* rated department.

## Recommendations

1) We recommend that the UK Government continues to invest in the research base of our universities at levels that maintain in the next CSR the growth rate of the current 10 year science framework. Maintaining the flow of ideas and their conversion through innovation is at the heart of our future competitiveness. This funding should be focused to support truly world-class centres of excellence.

2) We recommend that businesses and the funding and research councils work closer together to identify how research and staff exchanges can best encourage wealth creation as well as open exploration. The Technology Strategy Board should facilitate this dialogue.

3) We recommend that the Government and funding councils develop a replacement for the RAE beyond 2008 which will be sufficiently sensitive to fund a range of research capabilities and foster excellence from fundamental through applied, practice based and problem focused research. This should build on the work underpinning this report on how different forms of research contribute to product, process and service innovation.

4) Given the importance of multidisciplinary research, we recommend that the funding councils and the research councils continue to encourage this, allocate specific funds for this while ensuring continuing support for the underpinning core disciplines.

5) We recommend that Research Councils UK urgently consider the distribution of funds between the research council; it will want to ensure that the ESRC and the AHRC have an allocation commensurate with the significance of research in the social sciences and the creative industries.

6) We recommend that the funding councils continue to characterise and encourage a range of partnerships between universities and allocate an increasing percentage of funds to support strategic world-class networks and the transfer of knowledge into universities from other world-class centres as well as from universities to businesses and local communities.

7) We invite the DTI to study the different ways in which various forms of research in a range of sectors contribute to product, process and service innovation so as to better inform all parties on where in a value chain they make their most valued contributions and how financial expectations and relationships can be structured accordingly.

8) We recommend that the CIHE working with the CBI, Universities UK, the British Council and appropriate Government Departments facilitate debate on how universities and businesses might share expertise and offer enhanced value for money through greater partnering with Asian universities.

9) While welcoming the current range of experiences across the sector, we recommend that Universities UK and the Leadership Foundation for Higher Education, consider further the nature of an internationalised university that can deliver the global experiences our business leaders espouse; businesses consider such a university might be characterised by a greater mix of students and staff, a range of international experiences to which students are exposed and a discourse on the global cultural, religious and ethical issues students need to be better prepared for a more global future;

10) We recommend that the Prime Minister's Initiative 2 engage businesses in the development of a unified marketing strategy to promote the UK as the preferred worldwide location in which to study, undertake research and secure quality jobs with multinational businesses. This would complement individual university initiatives and articulate the special features of the UK higher education system noted in this report.

11) While we recognise the recent changes on visa policies announced by the Government, we recommend that UK policy is consistent across the nations in:

- providing a two year automatic visa and work permit extension to international students graduating or receiving doctorates or equivalents (perhaps initially in STEM subjects);
- removing the requirement for overseas graduates to apply for visas from their home country if they wish to continue to study further in the UK;
- implementing the unified marketing strategy recommended above.



12) *We recommend that the HE funding councils ensure that over time overall funding covers the full costs of delivering all courses so that universities do not have to internally cross-subsidise and so that demand from businesses (e.g. for STEM graduates) can be met.*

13) *We recommend that the Sector Skills Development Agency (SSDA) working in particular with the networks of SSCs takes a lead in improving the provision of labour market information, so that more informed decisions can be taken on:*

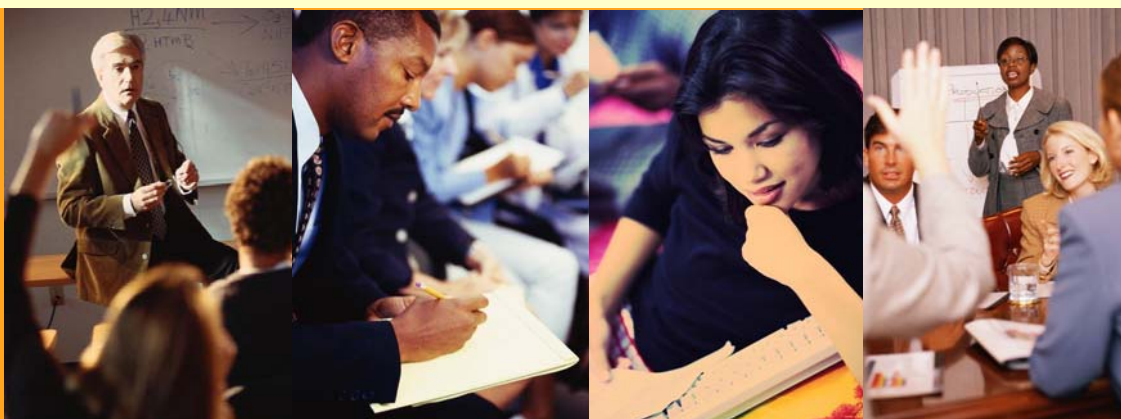
- *subjects to be studied (particularly maths, technology and science subjects);*
- *the options and modules within subjects that employers value; and on*
- *the importance of quality work experience.*

*The SSDA should also work with professional bodies, RDAs and other organisations.*

14) *We recommend that the Regional Development Agencies recognise the increasing importance businesses attach to students having had a placement and the advantages of two way secondments between universities and businesses and encourage the evolution of current schemes and good practice.*

15) *We welcome the Government's emphasis on encouraging workforce development at higher levels and on progression from levels 2 and 3 to levels 4 and beyond; we recommend that the funding councils ensure that the demand side is firmly engaged in the development of these policies including through a range of co-funded pilot projects which encourage work-based learning to be assessed as part of national learning frameworks.*

16) *We recommend that all universities and businesses characterise their relationships and consider the mutual merits of establishing a number of strategic partnerships that cover a range of activities.*



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