



Collaboration, culture and leadership:

adapting universities to shifts in science, business and society

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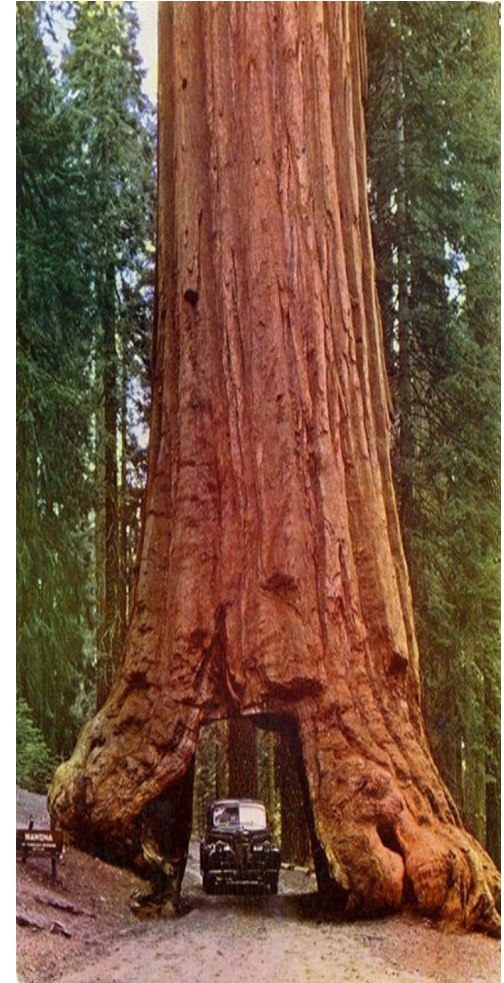
Structure of the session

- **The wider context in which we're operating**
- **The challenges this poses to universities**
- **Bridging the cultural gap between universities and business and industry**
- **The implications for professional leadership and management**
- **What we need to do about it.**



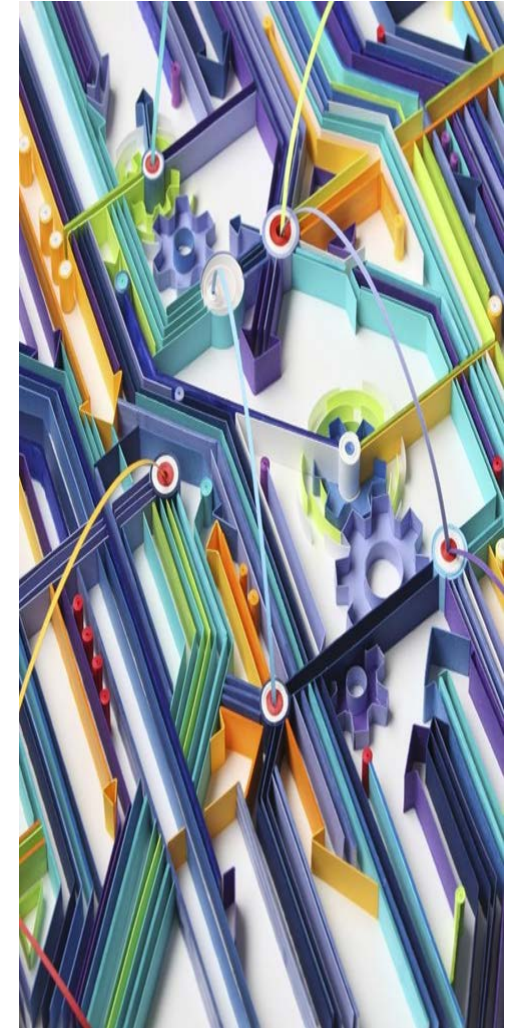
Endurance through adaptation....

- **Leading public HEIs embody Steven Johnson's contention that institutions are the giant redwoods of modern civic life**
- **Impressive evolution and capacity to adapt**
- **We've endured as en-vogue ideologies, fashions, industries and technologies have sprung up and disappeared**
- **Yet the operating culture of universities hasn't changed that much**
- **That's about to change**



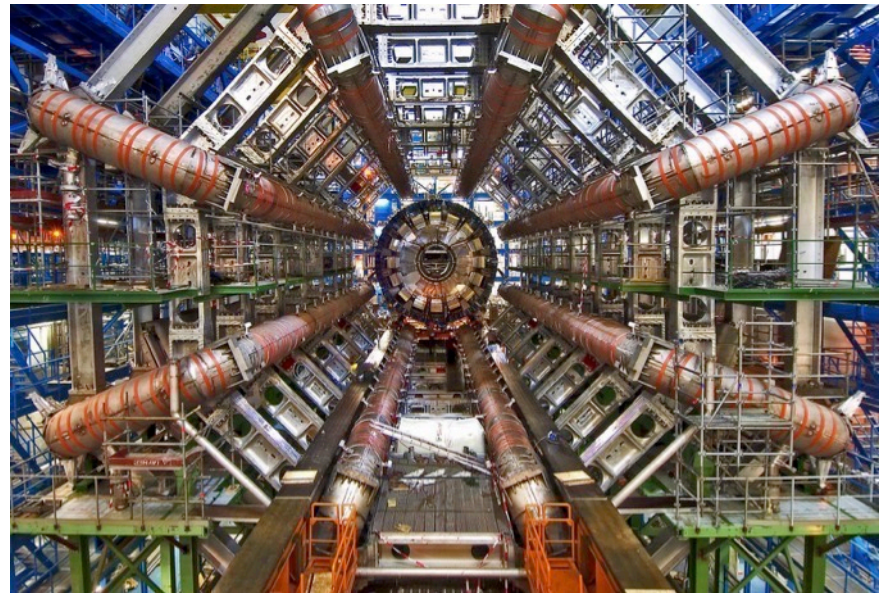
Connectedness & uncertainty: but innovation rules

- **Governments buffeted by complex challenges global in their dimension**
- **The prospect of an ‘Asian Century’ – and the rise of a new middle class**
- **The hunger for innovation - the new machine age, big data, and the connected economy. Major impact on the labour market**
- **An increasingly crowded knowledge-producing landscape. Universities not the only knowledge-intensive game in town**
- **The decline of deference & the rise of the ‘on demand’ generation**



The world of science is changing

- **New tools**
- **Big data**
- **Increasing interdisciplinarity**
- **Increasing recognition of importance of arts & social science**
- **International landscape**



The world of business is changing

- **A new industrial revolution is underway**
 - **Fusion of physical, digital and biological**
 - **Data driven eg. precision agriculture**
 - **Blurring of manufacture and services**
 - **Centrality of social science**
- **A shift in thinking about industrial strategy**



Image: Blatchford

Society is changing

- **Trust in the establishment and experts**
- **Role of social media**
- **Globalisation**
- **“Science meets values”**
- **Public engagement**



Social mobility & VFM...rising expectations

“This patchiness in the student experience within and between institutions cannot continue. There is extraordinary teaching that deserves greater recognition. And there is lamentable teaching that must be driven out of our system. It damages the reputation of UK higher education and I am determined to address it.”

“It is not at all clear to some students what their tuition fees of up-to £9,000 a year actually pay for.....”

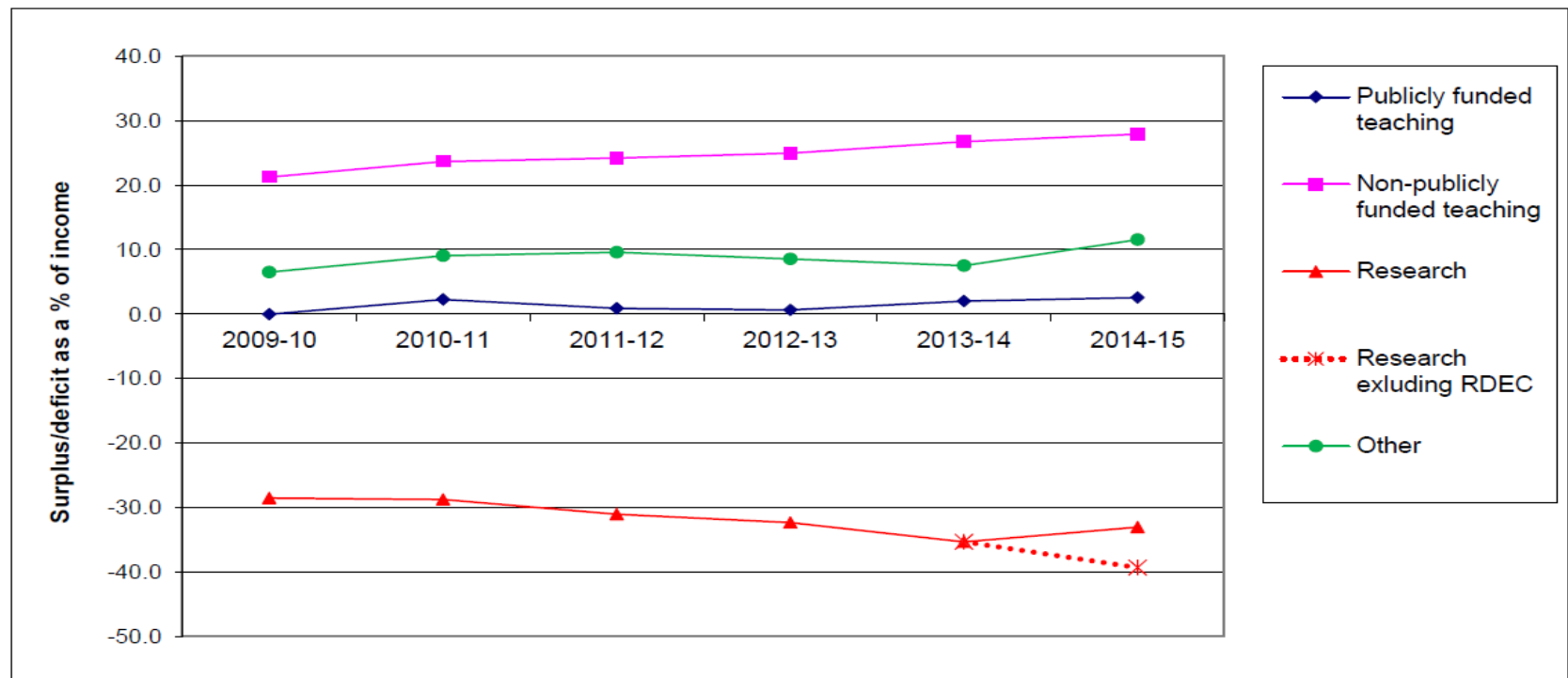


Jo Johnson MP, Minister of State for Universities and Science.
Speech at Universities UK Conference, 9th September 2015.

Sector finances by activity type...England

It turns out that that it pays for research.....

Figure 12: Surplus/deficit as a percentage of income 2009-10 to 2014-15

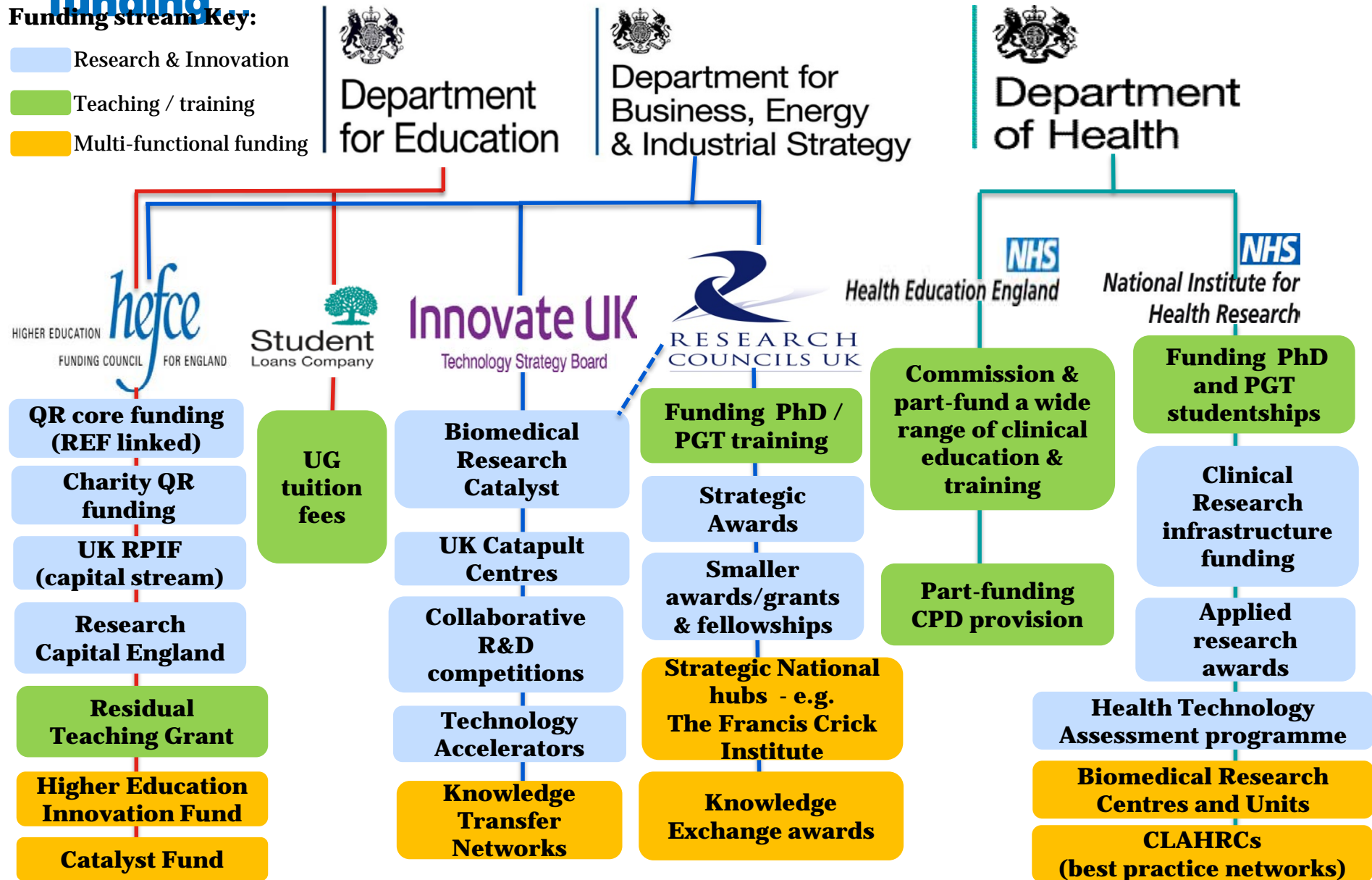


An increasingly diverse public funding environment for HEIs in England: a shift in the balance to 3rd mission

funding

Funding stream Key:

- Research & Innovation
- Teaching / training
- Multi-functional funding





Ingredients for success are clear...

- Tackling important questions – fundamental and applied
- Brightest minds
- Diversity
- Infrastructure roadmap
- Incentives for collaboration, engagement & partnership
- Rigorous evaluation



...although the pathway to success is less clear

Building in strategic context...

Institutional strategic academic positioning & planning

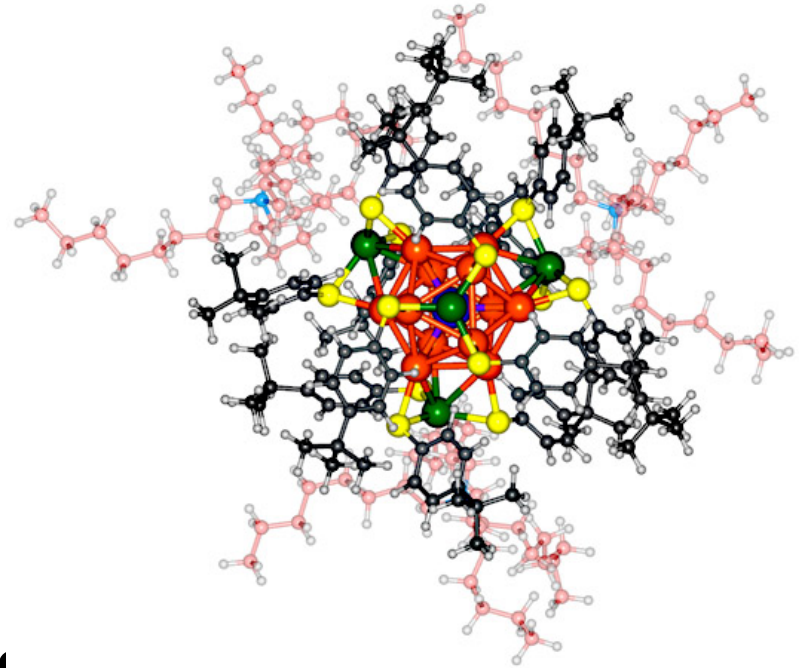
What are the two, maximum three most important contextual factors we should be building into our future strategic thinking and positioning?

Contextual factor	Comment Examples of how it should manifest
1	
2	

Bridging the cultural gap

Received behaviour: universities

- **Commitment to quality and excellence**
- **Elaborate systems and process to assure this. Eg., peer review systems and process for publicly funded research;**
- **academic journal editorial systems**
- **Rewards incremental improvement**
- **Discourages risk taking**
- **Interdisciplinary approaches often difficult to negotiate**
- **Works with loosely coupled networks**



Scientific advances...



Incremental
advance

Incremental
advance

Paradigm
shift

- **Funding, regulatory and global research university academic culture reinforces this approach and sustains the ‘system’**
- **Has reinforced the pre-eminence of PI dominance**
- **Has had the clear benefit of encouraging academic autonomy and institutional self governance**

Bridging the cultural gap

Received behaviour: entrepreneurs

- **Commitment to realisation of a future vision**
- **Mantra of: progress not perfection...so advances will still be incremental**
- **Use 'gating' systems to make progress and control risk**
- **Profound understanding of financial risk**
- **Calculated risk taking is rewarded**
- **Inherently interdisciplinary teams**



[Author credit](#)

Innovation advances...the entrepreneur

Advances *will still be incremental* but the approach is fundamentally different

Starts in the future with a vision of what is to be achieved

Amasses the resources to realise the vision: investors; leaders; managers; skilled teams

Risk based plan; highly disciplined approach to passing through implementation 'gates'; an attitude of 'contingent commitment'

Manifestations of the cultural gap...

- **Different perceptions of the value of intellectual property at various stages of the innovation cycle**
- **PIs and other academic leaders fearing loss of autonomy**
- **Entrepreneurs misunderstanding the nature of academic culture, the value of basic research and its role in the innovation cycle**
- **Differing perceptions of timescales and delivery deadlines**
- **A clash of perceptions: the entrepreneur feels they should be working with an 'institution'; the PI regards the primary relationship to be with him/her**



Innovation leadership skills...

Innovation leadership competencies

What are the two, maximum three most important innovation leadership competencies which we see in our future institutional leaders to enhance engagement with business?

Competencies	Comment Examples of how it should manifest
1	
2	
3	

Innovation leadership behaviour....

Innovation leadership behaviours

What are the two most important innovation leadership behaviours which we need see in future leaders...and the two behaviours we definitely want to discourage, to foster better engagement with business and industry?

Behaviour	Comment Examples of how it should manifest
1	
2	
3	
4	

Innovation capacity building...

- **Requires new competencies & new leadership behaviours in HEIs**
- **A new tone needed at the top**
- **Highly skilled leadership**
- **Embed ‘amphibious’ or ‘bilingual’ skills**
- **But give them an ‘institutional home’; they need to be empowered to access the top**
- **Renovate IPR and related policies**
- **Cultivate business and industry to be part of the institutional story...often well done via students as much as staff**

