

Future Trends in Global Higher Education: The role of Universities as place makers in the local economy

Chair: Professor Garry Pender, Deputy Principal (Research and Innovation)

Heriot-Watt University

The role of universities as place makers in the local economy: an international perspective

Professor Garry Pender
Pro-Vice Chancellor (Research)
Heriot-Watt University

Context

- Increasing recognition by government of the role of universities in economic growth.
 - UK – Industrial Strategy Challenge Fund, City Deals, Strength in Places.
 - UAE – National Strategy for Innovation
- Increasing interest by business in partnering with universities to drive innovation and develop talent.

Geographical Location

Our International Impact



Galashiels

Strength in Places - Textiles and Design

Legacy and heritage of global recognition for excellence but a number of acute environmental challenges:

1. resources used to source raw materials;
2. amount of carbon released into the atmosphere during production;
3. amount of water used in the manufacturing process;
4. amount of material that contributes to landfill.

Fundamental shift in the manufacturing process is required.



Edinburgh

Edinburgh Region City Deal (National Robotarium)

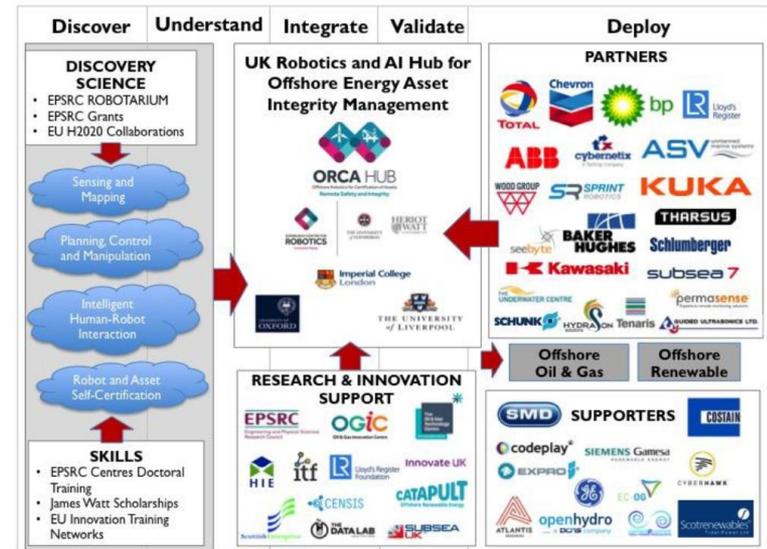


ORCA HUB
Offshore Robotics for Certification of Assets
Remote Safety and Integrity

The home of socially responsible robotics

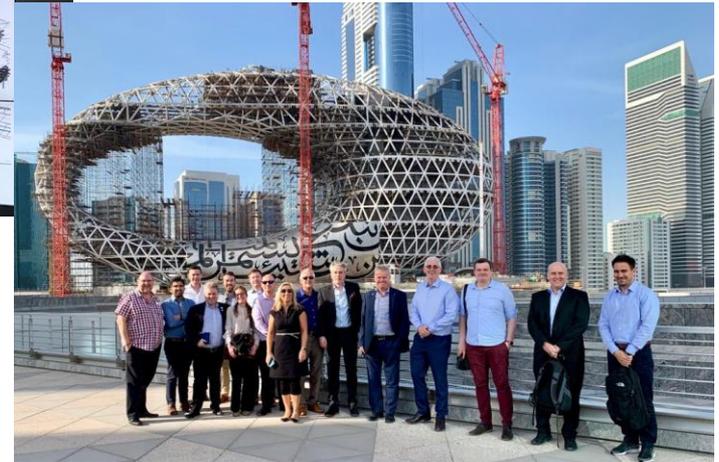
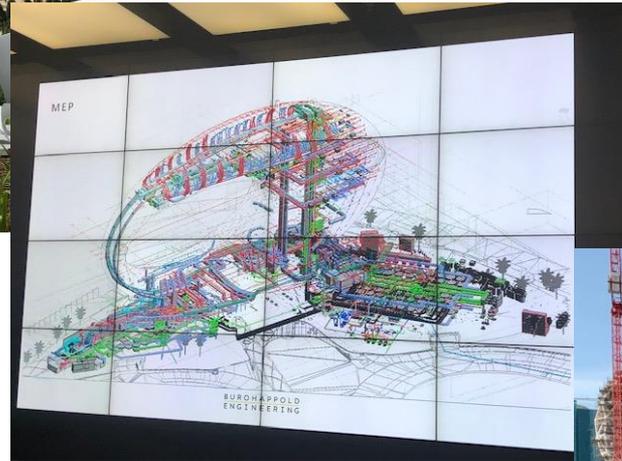
The National Robotarium is a world-leading centre for robotics, embedded intelligence and autonomous systems. Its ethos is one of collaboration, underpinned by a desire to create innovative solutions to global challenges, delivering tangible benefits for society.

By developing the next generation of highly skilled researchers and engineers its pioneering products and services will move rapidly from laboratory to market, accelerating growth, attracting investment and growing exports.



Dubai

Centre of Excellence for Smart Construction



Talent

- Digital Skills
- Cultural Awareness
- Adaptability

Conclusions

- Alignment with national government strategy.
- Strong partnerships (business and academic)
- Clear offering in research and innovation.
- Talent development programme aligned with business need.

The importance of place to a university

Jo Dobson
Associate Pro-Vice-Chancellor
Coventry University

Local vs Global?

- Higher Education operates in a global marketplace and has done so for decades
- Not just for skills and education, but also for research and innovation
- However, all universities still have at least one local base that it is connected to both economically and socially
- Are these two at odds? How can an institution be both local and global?
- What does it mean to be local? Is that the same as being an 'anchor'?

Universities as ‘Anchor Institutions’

- The concept “anchor institution” emerged during the 2000s predominantly within the US as a new way of thinking about the role that **place-based institutions** can play in addressing societal problems and in building a more democratic, just and equitable society.
- The European Commission developed a lot of material on this topic, including a report entitled: **Connecting Universities to Regional Growth** (2011)
- In the UK, we have a recent report by the UPP Foundation encouraging universities and cities to jointly develop **Civic University Agreements**

What is an Anchor Institution?

(University of Pennsylvania Toolkit)

1. Does it have a large stake and important presence in the community?
2. Does it have economic impacts on employment, revenue gathering and spending patterns?
3. Does it consume sizable amounts of land?
4. Does it have relatively fixed assets and is unlikely to relocate?
5. Is it among the largest purchasers of goods & services in the region?
6. Is it a job generator?
7. Does it attract business and highly skilled individuals?
8. Is it one of the largest employers, providing multi-level employment opportunities?
9. Is it a centre of culture, learning and innovation with enormous human resources?

Universities as 'Anchor Institutions'?

- It could seem from the list of questions in the Pennsylvania toolkit that a university could be an anchor institution just by being situated in a locality
- However, there is a world of difference between being an 'accidental' anchor and a 'deliberate' anchor institution
- A deliberate anchor institution:
 - Engages with local / regional community infrastructure and other anchor institutions
 - Provides support to local businesses and community
 - Shares infrastructure with partners in the local / regional area
 - Improves the resources (including the human capital) in a locality

Coventry University

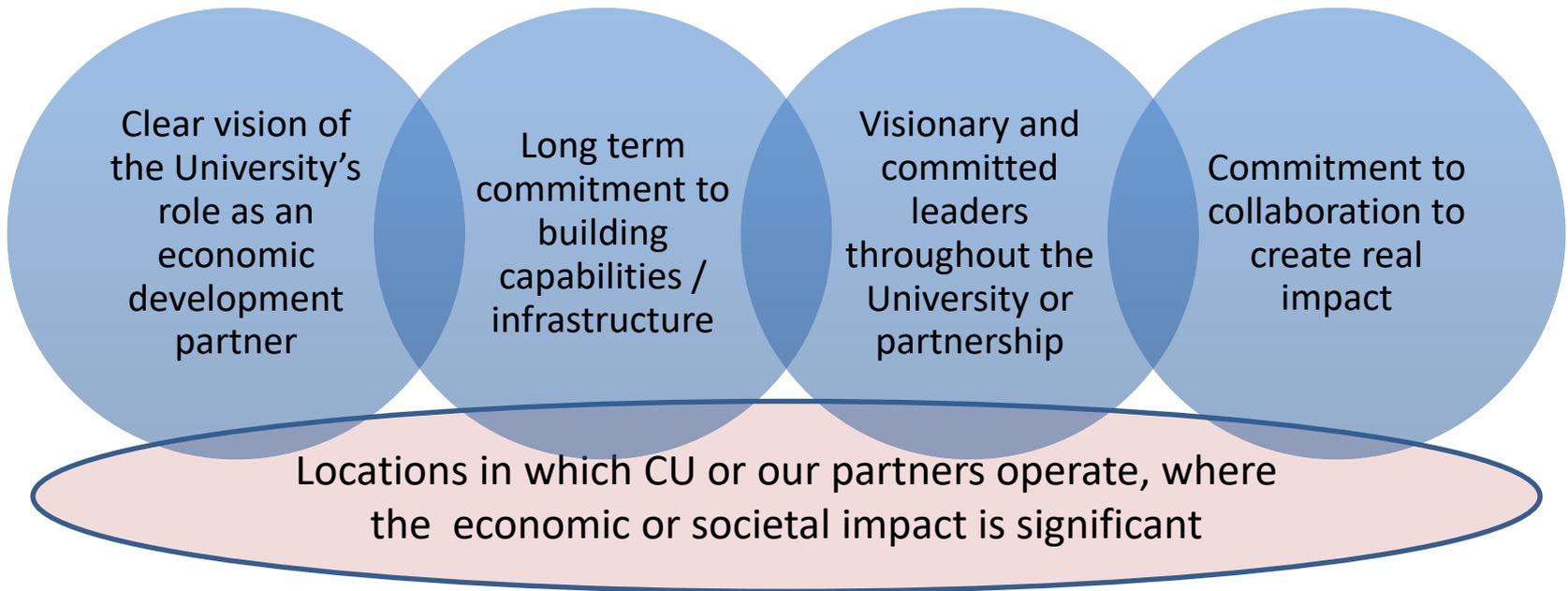
- Coventry University is celebrating 175 years of providing education in the city of Coventry – a place of learning in the city, for the city. We are a ‘deliberate’ anchor institution.
- We have campuses in the north of England (Scarborough), in London and in Poland.
- We have 40 TNE partners in over 20 countries and work with many of those partners on local initiatives
- We have committed to produce a new “Civic University Agreement” in partnership with local government and other major institutions, in Coventry and in Scarborough.

Coventry - City of Culture 2020

The UK City of Culture is a competition run by the Department of Culture Media and Sport every four years. The winning city is given the prestigious title for one year with opportunities to fill the city with arts and cultural activities.

- Visiting schools to support local children with English, mathematics and sport
- Working to improve local areas, from litter picking to giving security advice with the Street Warden scheme
- Working with older people in libraries to improve their computing and digital skills with the Gen-to-Gen project
- Holding regular Computing, Design and Engineering sessions to inspire and upskill children and adults of all areas in Fab Lab Coventry
- Our researchers work with local groups to tackle issues, solve problems and build relationships that help local communities and the University.

Success factors for the University: Coventry University experience





Becoming Bangladesh's International University

Vincent Chang, PhD (MIT and Berkeley)
President & Vice-Chancellor, Brac University

How Dhaka is viewed – Flyover land

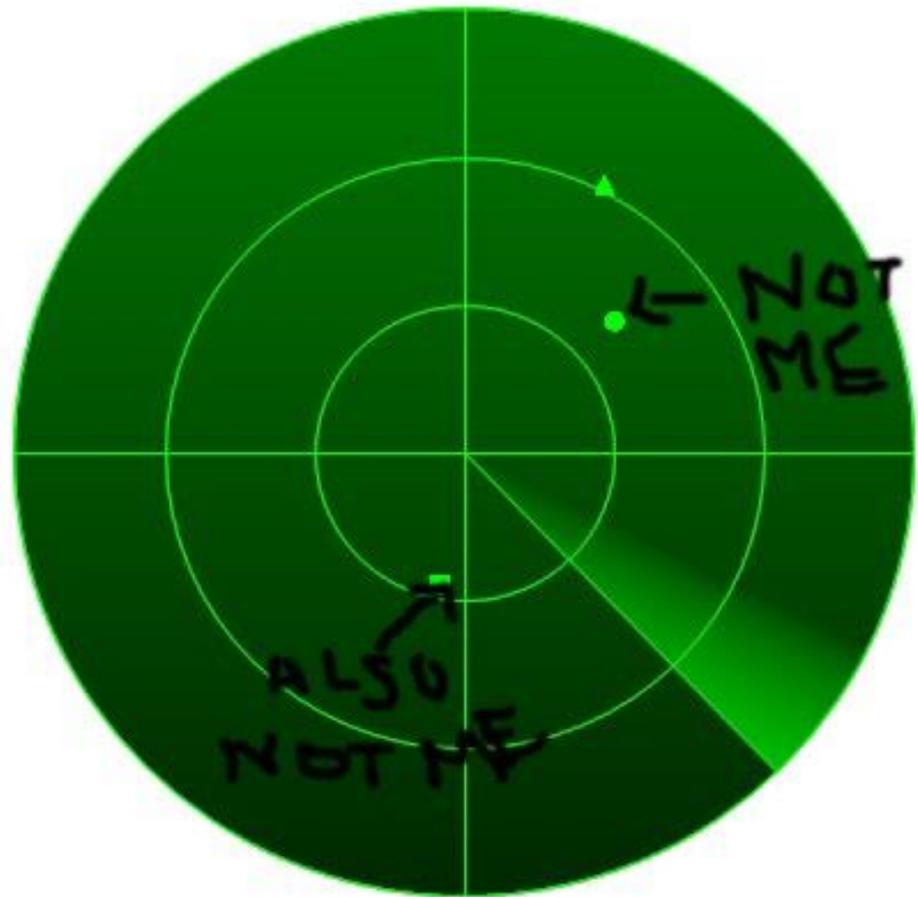


Shikhar Bhattarai/stocksy.com/5441083

Post WWII Economic Growth Frontier



Higher Edu.
-- Off the Map



BRAC: #1 NGO, 135M & Rohingya



110M

people reached through our service delivery programmes



6.2M

total borrowers reached



USD 3.82B

total loan disbursement



2M

children, over half of them girls, enrolled in 33,074 schools and centres



1.3M

people, including men and boys, reached through gender integration efforts



150,638

women supported through post-disaster recovery and rehabilitation initiatives



9.8M

eligible couples used modern contraceptive methods



404,482

children between the ages of 3-5 years accessed early childhood development and pre-primary programmes



162,148

people screened for TB symptoms



BracU 2.0

- .Internationalization**
- .Student Experience**
- .Impact**

What lies in the future?

“

*With them the seed of wisdom did I sow,
And with my own hands labored it grow;
And this was all the harvest that I reaped—
I came like water, and like wind I go.*

Omar Khayyam

Science and Technology Parks: Fostering knowledge-based economies

Daniel Melo

Rector

Federal University of Rio Grande do Norte

BRAZIL

Opportunities for Local Economy

1 Technological and innovative potential of universities

2 Attract technology-based companies

3 Meet demand of local companies for human resource formation and R&D area

4 Expand local economic activities

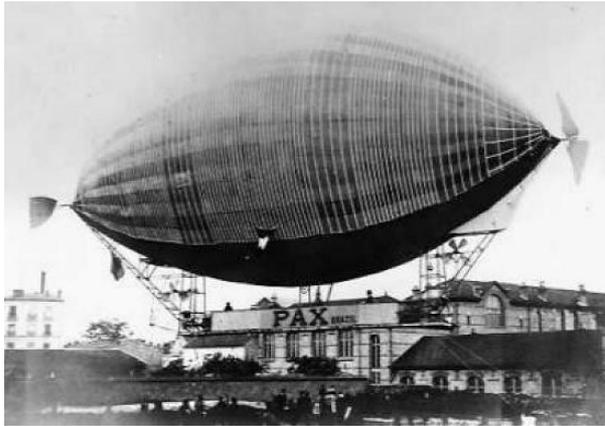
5 Contribute to social and economical development of local community



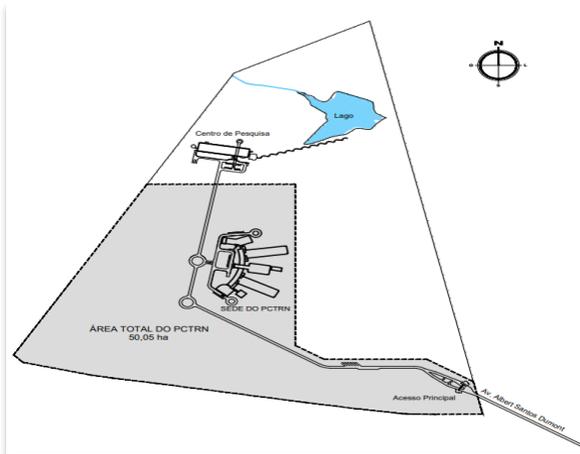
Keys to Success

- Availability of universities & research institutes with qualified research in the areas of knowledge of the park.
- The triple-helix model of innovation: academia, government and business sector.
- Attractive business environment.
- Sustainability plan (financially viable).
- Incentives such as fiscal and debureaucratization.
- Support for intellectual property protection and technology licensing.
- Ability to a market its products and services.

PAX - Science and Technology Park



<http://www.fab.mil.br/noticias/mostra/22084/HOMENAGEM>



PAX – Interest Areas



Energy



**Health
Rehabilitation**



**IT and
Industry 4.0**

PAX

- What's next?
 - Collaboration with institutions around the world
 - Attract investments



Discussion