The Newcastle Science City Partnership
Innovation for Regeneration

International Forum on
Universities Transforming Cities and their Regions
Newcastle, Australia
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Chris Brink
Vice-Chancellor
University of Newcastle upon Tyne
UK
Geography

3 hours on the train
Newcastle upon Tyne  (A little bit of history)

- The “New Castle” was built by Henry II around 1172
  - (The “Old Castle” was built in 1080, but it burnt down)
- First bridge across the Tyne built by the Roman Emperor Hadrian
  - (Check our MOOC on Hadrian’s Wall!)
- Newcastle fought over by Picts, Romans, Saxons, Vikings, Normans, English and Scots
- A leading city in the industrial revolution
  - Coal (of course)
  - George Stephenson and the railways
  - Charles Parsons and the turbine engine
  - Joseph Swan and the electric light bulb
  - Lord Armstrong, the ‘Magician of the North’: guns and ships; heavy engineering
- A strong sense of identity
  - Geordies, ‘The Toon’, etc
Newcastle and North East England

- North-East England
  - 2.5m people; £38.8bn economy
  - 35% of UK’s pharmaceutical GDP
  - 58% UK petrochemical manufacture

- A few large multinationals
  - Nissan, Sage, Siemens, Procter & Gamble

- 1970s–80s: familiar post-industrial decline

- 1990s onward: Regeneration
  - Culture-led; Quayside development
Newcastle Science City Partnership

• A mature relationship
  - Since 2005 (following Labour Government announcement)
  - Initially 3-way, including Regional Development Agency
  - Since 2010: University and the City (following Coalition Government’s abolition of RDAs)

• A well-functioning relationship
  - I can see the City Chief Executive from my office, across the park
  - We often confer in a quick early-morning one-to-one
  - Science City Partnership Board: 4+4 + Independent Chair
  - Same Chairman since inception (FTSE 500 Chief Exec)

• Strong focus on Innovation and Regeneration
  - 3 Major regeneration sites
  - Each with a Science/Engineering base

• A wide-ranging partnership
  - Beyond Science & Engineering
  - Issues of Social Renewal (E.g. Fairness Commission)
  - Cultural Issues (E.g. Great North Museum)
  - ‘Cities Initiative’ (E.g. Newcastle 2020)
Our three main regeneration sites

- The Campus for Ageing and Vitality
- Science Central – Urban Sustainability
- The Neptune National Centre for Offshore & Subsea
1. Ageing – everyone’s business

When I get older, Will you still be sending me a birthday greetings, bottle of wine?
If I'd been out 'til quarter to three, would you lock the door?
Will you still need me, will you still feed me, when I'm...

84?
Triumph, Challenge and Opportunity

- **We are living longer**
  Average life expectancy is increasing by 5 hours every day

- **But not always living well**
  The increase in *healthy life years* is not keeping pace with the increase in life expectancy

- **Older people: the 21st century consumers**
  ≥ 50% of current consumer spend is from people over 50 years of age, but as yet not enough companies develop new products and services for markets targeted at older people
“I said I wanted science to be at the heart of delivering a Northern Powerhouse as part of this government’s long-term economic plan. That’s why I’ve earmarked £20 million to support Newcastle’s brilliant cutting-edge research, right here in the North East.”

George Osborne
Chancellor of the Exchequer
11 December 2014
Newcastle University Institute for Ageing
- an international centre of excellence in ageing research

• Established 1984

• An internationally-recognised track record of basic and applied scientific research

• An extensive programme of social initiatives, particularly in the North East [eg VOICENorth]

• Purpose-built premises at the Campus for Ageing and Vitality

• Supporters & partners: MRC, BBSRC, Wellcome, Cancer Research UK, Diabetes UK, Arthritis UK, GSK, Unilever, P&G, AstraZeneca, Novartis, Eli Lilly

http://www.ncl.ac.uk/ageing/
Example: Age inequality in Newcastle

Disparities in healthy life years in Newcastle upon Tyne
What NASI wants to do

Aims:

• To form a critical mass of innovation expertise in the ageing arena
• To develop, evaluate and bring to market products and services which optimise health and wellbeing as we age
• To re-engineer Newcastle as an age-friendly city

Specific objectives:

• Increase Healthy Life Years by 20% over the next 10 years for ≥65s
• Secure the Silver Economy: stimulate the ≥50s consumer market
• Northern Economy: jobs, partnerships, products
2. Urban Sustainability

• How do you re-engineer an old industrial city to become a sustainable smart city?
  – Energy
  – Transport
  – Water
  – Waste
  – Infrastructure

  **Urban Science**
  = the idea of *Digitally Enabled Urban Sustainability*

• Science Central Development
  – 20 acre inner-city brownfield site (owned by Science City Partnership)
  – Simultaneously: Science Park + Smart City + Regeneration project
  – £57m Urban Sciences Building (and more to come)
  – City Council: Incubator, Laboratories, Energy Centre, inward investment
We took out 40,000 tons of coal (and sold it to fund the infrastructure)
Science Central today

Station: 5 mins walk

Campus: 12 mins walk

Business School
Science Central tomorrow
3. Offshore and Subsea Engineering

The River Tyne

- One of the world’s great industrial rivers – home to shipbuilding and wider marine engineering for centuries.
- Went into decline from the 1970s onwards – closure of shipyards led to massive redundancies.
- The emergence of North Sea oil and global telecoms created opportunities and the resurgence began – high-tech spin-out companies from Newcastle University established themselves.
- Other companies were attracted in and now the Tyne is becoming active again.
The River Today

Newcastle University main campus

The Neptune National Centre for Offshore & Subsea Engineering

SMD

Technip

Bryden Ropes

GE Oil & Gas Innovation Centre

BEL Valves

GE Wellstream

Shepherd Offshore
Program of Activities

1. **Research** – with extensive industrial input and world-leading equipment

2. **Skills and training** – help address a critical shortage of engineers in UK

3. **Open innovation** – everything we do is open to all industrial collaborators (both industry and universities)

4. **Commercial activity** – joint venture with BEL Valves & local funding for a hyperbaric facility rented
Lessons learnt

- Most universities will outlast most governments
- The city is our laboratory
- Collaboration with your city/region only really works if it is ingrained in the ethos of the University
- Work with what you’ve got
- Collaboration is hard work!
The ethos of a world-class civic university

• What are we good at?
• What are we good for?

Thank you