Places of Tomorrow: A People-Centric Approach to Sustainable Development

Presentation overview

• Newcastle and Newcastle University
• Newcastle City Futures – Background and context
• What we did
• Some project examples
• (If time) Newcastle’s ‘System of Systems’
Some expectation management

The city

Cradle of industrial revolution – history of entrepreneurialism and invention (steam engine, light bulb) based on carboniferous industry
1930s to 1980s – steady decline of extractive and manufacturing industries
Still significant challenges and gaps with national averages on business starts, skills, R&D investment, productivity, health, attraction of graduates and skilled migrants
But areas of strength in emerging niche sectors (data innovation, life sciences) and university/ies seen as key assets
The university

One of the 19th century English ‘civic’ universities established in the (mostly Northern) cities at the behest of local civic leaders and industrialists to supply the skills needed to fuel the industrial revolution (e.g. engineering, medicine).

Top 1% globally, research intensive institution with significant direct (and indirect?) impact on the local economy.
Background and Context

Where have we come from?
Where are we now?

Where do we want to go?
2014 – Series of events, exhibitions and public engagement to set out a vision for Newcastle in 2065
Delphi survey to collaboratively identify key themes
Aims

To take a broad and overarching look at the long-term future of cities over the next 50 years using Newcastle upon Tyne and its region as a pilot

To develop a more strategic and inclusive approach using futures methods and city-wide participatory processes

To show how universities can work more proactively with and for the cities in which they are located

To use creative techniques and expertise to foster city-wide civic engagement and demonstrator projects.

Themes

1. **Age Friendly City**: relationships between an ageing society, housing needs, and the use of digital technology;
2. **Sustainable City**: relationships between transport and highway design, digital technology and public health benefits;
3. **Creative City**: relationships between enhancing local democracy and engagement, visualisation of the urban realm, and cultural and creative arts to generate public interest.
4. **Science City**: relationships between science and engineering and collaborative democracy, particularly around themes such as energy consumption, and health.
2016 awarded one of five Urban Living Partnership Pilots

Aims

• To diagnose the complex and interdependent challenges within the urban region, working collaboratively to co-design and implement initiatives and solutions in order to contribute to the life and development of the area

• To act as a collaborative platform that facilitates cross-sectoral demonstrator projects addressing challenges and opportunities in the city-region

Funded by RCUK/Innovate UK for two years to July 2018

What we did
Brought people from across disciplinary and sectoral silos together to address city challenges and opportunities
Working on a ‘quadruple helix’ basis with all sectors represented on all projects.

Grew our initial partnership from 20 in 2016 to 160 by 2018.

Private sector
Universities and colleges
Third sector/non profit
Public sector
50+ new projects initiated

Case studies
Future Homes: Digitally Enabled Sustainable Housing for the Lifecourse

Metro Futures: Accessible and inclusive trains for multiple generations
The Future High Street: Digital retailing, green infrastructure and creativity

Supplying broadband capability in the social housing sector of the city to provide digital inclusiveness but that will also utilise the technology to assist with air quality monitoring and the delivery of adult social care in the home.

Location: Byker, Newcastle
Status: consortium in place, £20m Innovate UK bid preparation continuing.
Last Mile: Coordinated deliveries to improve congestion & air quality

Last mile freight logistics distribution hub to coordinate deliveries to the universities, city council and hospitals, to remove lorry traffic numbers and improve air congestion. Location: Newcastle
Status: consortium discussions underway, modeling completed and electric lorry in ownership of university. £1m ERDF bid submitted.

Engaging young people in shaping their own places

JigsAudio
DRAWING & TALKING

[Images of JigsAudio project materials and participants]
The Farrell Centre: An urban room for the city with digital engagement and research

Farrell Centre architecture, planning and built environment urban room, located in the city centre, as a city engagement space and resource with digital installations, incubator space and start-up space for graduates. Location: Newcastle
Status: £10m project backed by Farrells, Newcastle University and others, planning application submitted for 2020 opening.

Newcastle’s System of Systems
Helped to build a shared understanding of potential impacts and beneficiaries of investments in new smart city technologies and services in the city.

Newcastle City Council’s Objectives for a Test Bed City

- Intelligent
- Innovative
- Inclusive
Biggest challenge

Ten Guiding Principles for a Smart Newcastle

1/ Problem-led
Start by identifying and prioritizing problems. Clarify needs and priorities of the city to maximize the chances of achieving positive outcomes.

2/ Participatory
Activate and engage all relevant city actors. Involve all relevant actors in designing, implementing, testing and dissemination.

3/ People-centric
Solutions should put people first. Emphasize accountability, choice, empowerment, improved quality of life and creating a livable environment for all communities across the city.

4/ Joined-up
Frameworks that facilitate collaborative actions. Create a culture of collaboration across disciplines and synergies to improve service delivery and ensure that new systems are ‘smart’ from the start.

5/ Open
Open standards and competitive supply chain. Embrace open standards, plans for interoperability, share data where possible, and make the city’s information and procurement contracts open to all suppliers.

6/ Valuable
Offer value for citizens, businesses and the council. Ensure that municipal and communal services create value for customers and retain high quality, remain affordable to users and deliver benefits to the Council.

7/ Outcome-focused
Outcomes for people, planet and local economy. Maintain opportunities to achieve multiple positive outcomes across different policy areas, including social, environmental and economic.

8/ Visible
People see and feel the benefits of smart cities. Create multiple touchpoints with citizens to promote the benefits and opportunities of the transition to a smarter city.

9/ Intelligent
Responsive and future-proofed solutions. Harness emerging technology, data and new ways of working to automate systems and make them more intelligently responsive to user needs.

10/ Strategic
Prioritize long-term benefits over quick wins. Make the best use of available resources and investment by adopting a long-term strategic approach that maximizes the value to the city.
Forward Actions for a Smart City

1. Discover Challenges & Define Use Cases
   - Programme of problem framing events

2. Smart City Blueprint & Investment Pitchbook
   - Investment ready projects & strategic context

3. Review & Align Procurement Practices
   - Supportive procurement practices to engage suppliers in short challenge-based cycles

4. Nurture the City’s Innovation Ecosystem
   - Launch branded smart city programme

5. Adopt New Working Practices
   - Enhanced capabilities & supplier relationships

www.newcastlecityfutures.org

Newcastle City Futures Channel