School of the Built Environment

University of Reading

BARTON WILLMORE

Reading UK CIC

READING 2050 VISION: CREATING AN URBAN INNOVATION ECOSYSTEM

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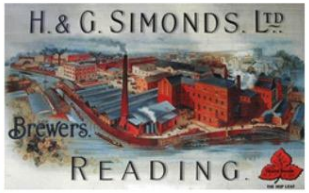
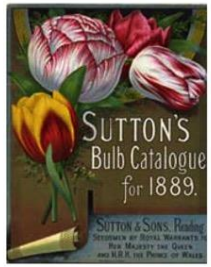
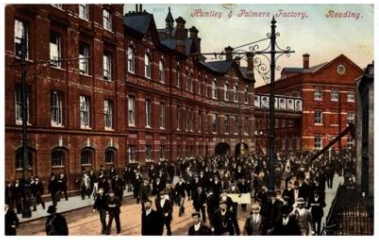
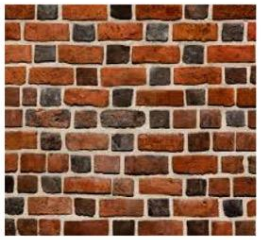








BEER, BISCUITS, BRICKS & BULBS?

TODAY...AND THE FUTURE?

WHY DO WE NEED CITY VISIONS?

- Sense of purpose
- Vitality and belief systems
- What sort of future do we want
- Promote discussion and debate
- Mobilise resources around desired future


BRISTOL
ONE


SUSTAINIA
GUIDE TO
COPENHAGEN
2025


CITY OF
VANCOUVER
GREENEST CITY
2020 ACTION PLAN


MILTON KEYNES:
MAKING A
GREAT CITY
GREATER
SUMMARY
Milton Keynes Futures 2050 Commission
The full report is available online at
www.mkfutures2050.com
MILTON
KEYNES
FUTURES
2050


Foresight
Newcastle
University
NEWCASTLE
CITY
FUTURES
2065
ANCHORING UNIVERSITIES IN URBAN
REGIONS THROUGH CITY FORESIGHT
Mark Tewdwr-Jones, John Goddard and Paul Cowie

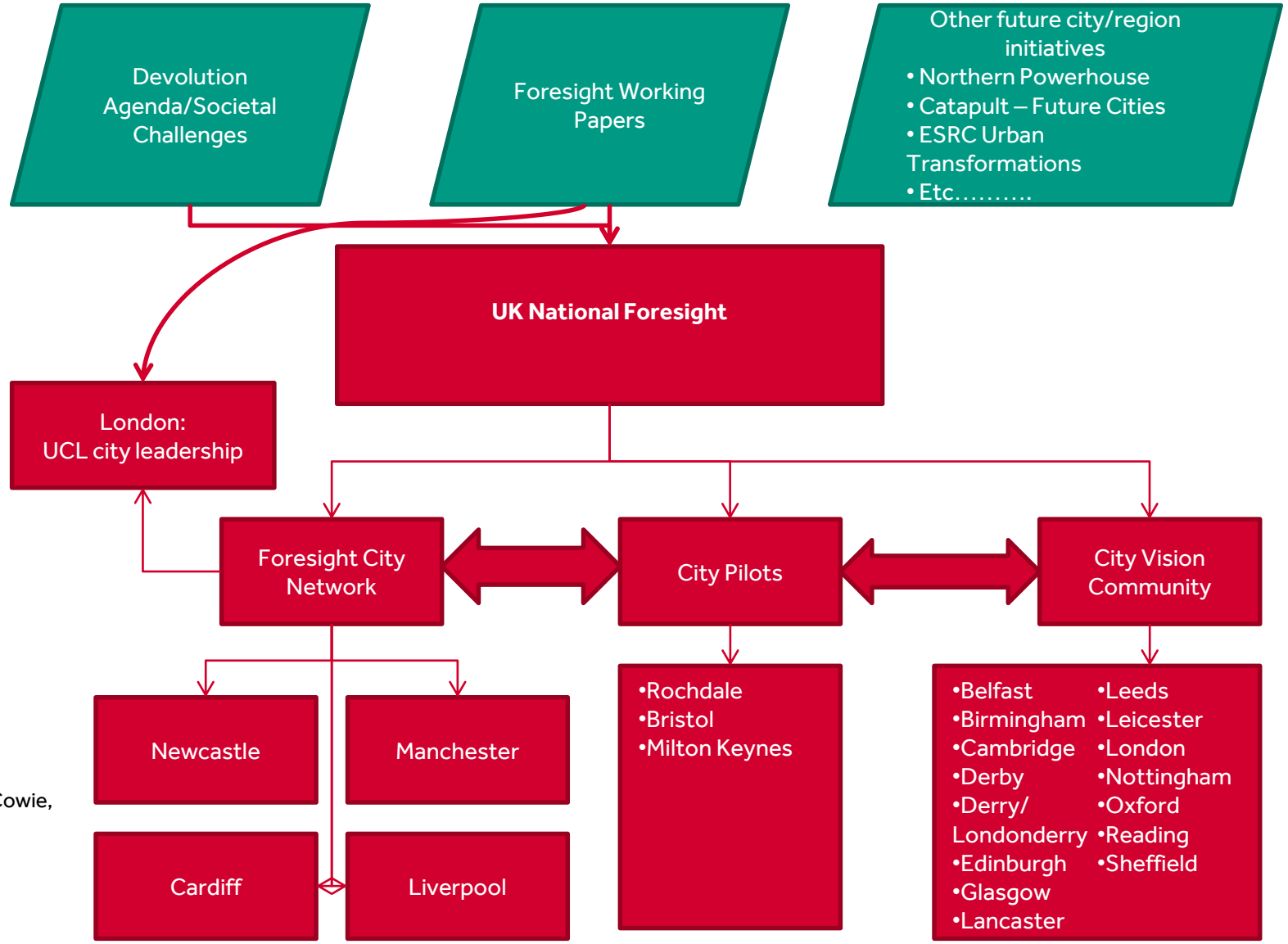

Stockholm
The Capital of Scandinavia
VISION2030
A GUIDE TO THE FUTURE


2025 2042 2059
2026 2043 2060
2027 2044 2061
A FIFTY YEAR VISION FOR THE FUTURE -
FUTURE GLASGOW 2011 - 2061
FULL CONSULTATION REPORT


Joburg
Joburg 2040
Growth and Development Strategy


MELBOURNE
LITAN PLANNING STRATEGY

UK Government GOS Future of Cities Foresight Programme (2013-2016) (https://www.gov.uk/government/collections/future-of-cities)



Slide: Courtesy of Paul Cowie, University of Newcastle

‘QUADRUPLE HELIX’: URBAN INNOVATION ECOSYSTEM?

“…where government, industry, academia and civil participants work together to co-create the future and drive structural changes far beyond the scope of what any one organization or person could do alone.

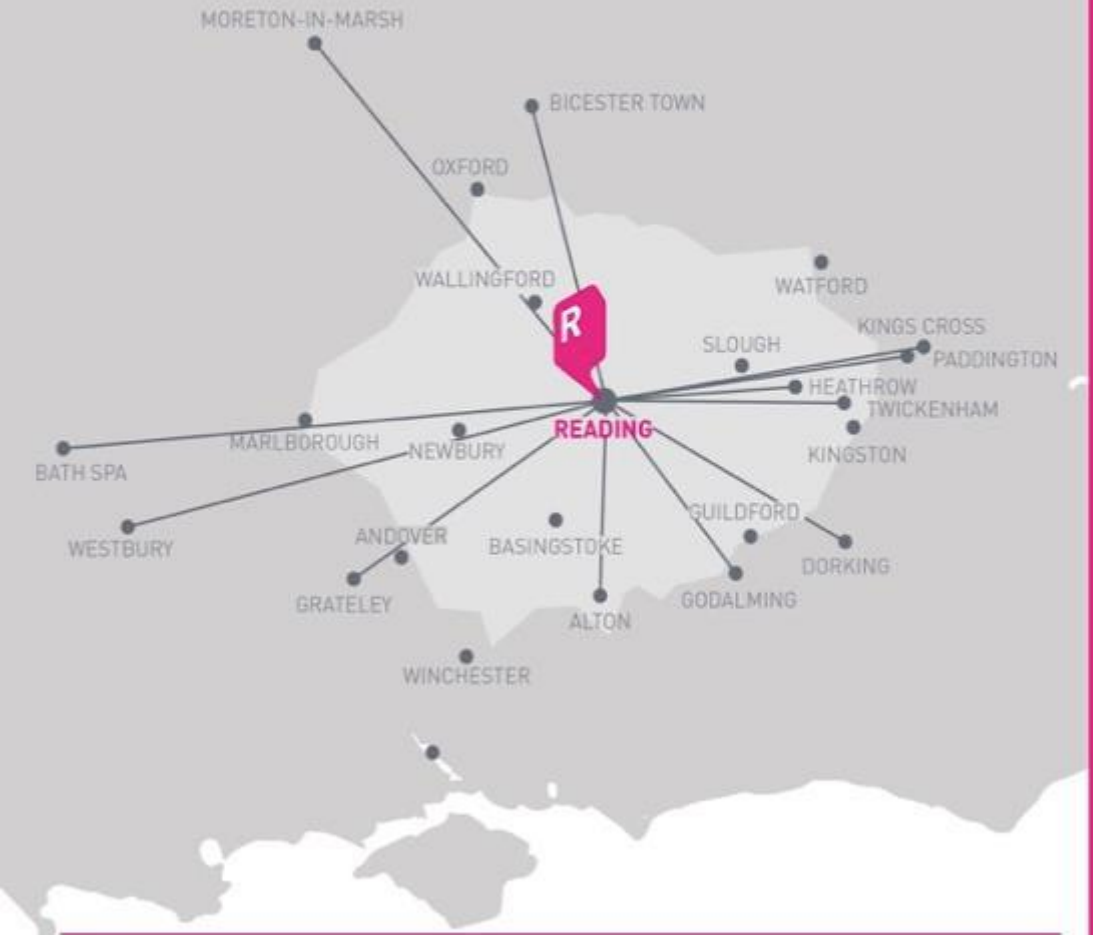
This model encompasses also user-oriented innovation models to take full advantage of ideas' cross-fertilisation leading to experimentation and prototyping in real world setting.” (EU, 2018)

(https://ec.europa.eu/digital-single-market/en/open-innovation-20)

SMART AND SUSTAINABLE READING 2050

- Started in 2013
- Builds on previous work (Reading 2020 and 2030 visions)
- Environment, economy and lifestyle
  - How could Reading be smart and sustainable?
  - What would low carbon living look like?
- Physical infrastructure, growth and development
  - What will be the key urban growth areas?
  - What are Reading's key infrastructure requirements?
- Partners: Barton Willmore, University of Reading, Reading UK
- BIS Future Cities Foresight Programme (2065 City Visions)

READING (GREATER READING)



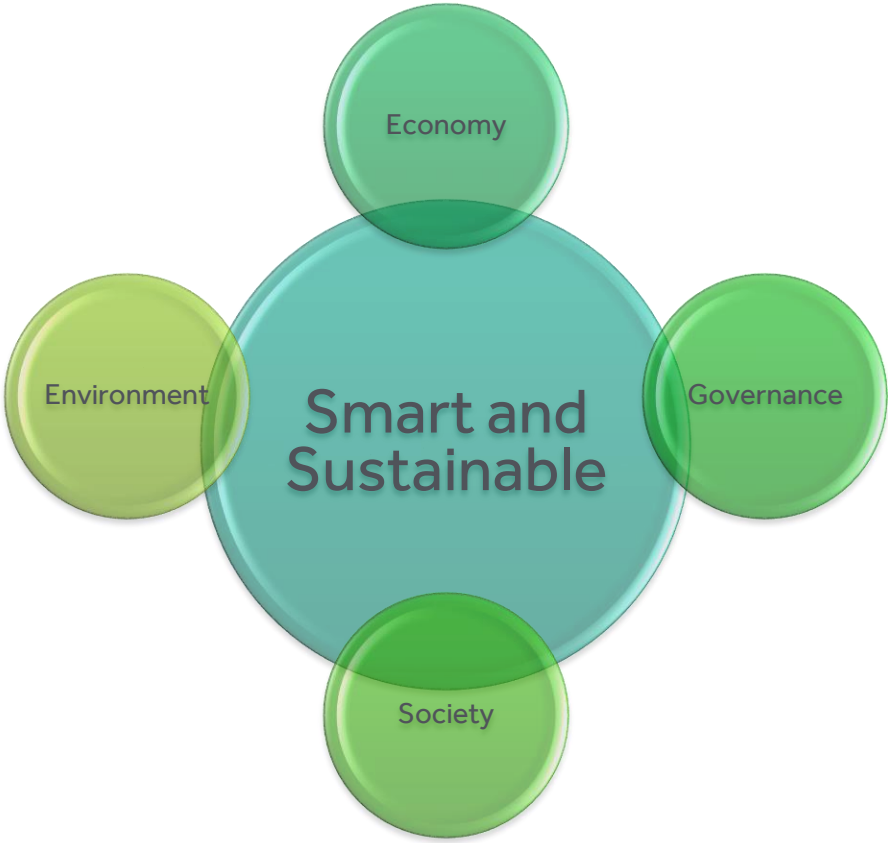
- Geographic focus & varying definitions
- Reading/Wokingham Urban Area (plus Arborfield, Woodley, Theale, Crowthorne, & Earley)
- Population: 318,014 (2011)

Reading UK 2050

SMART & SUSTAINABLE THINKING?

A ‘smart & sustainable’ city is a city that leverages the benefits of ICT infrastructure to:

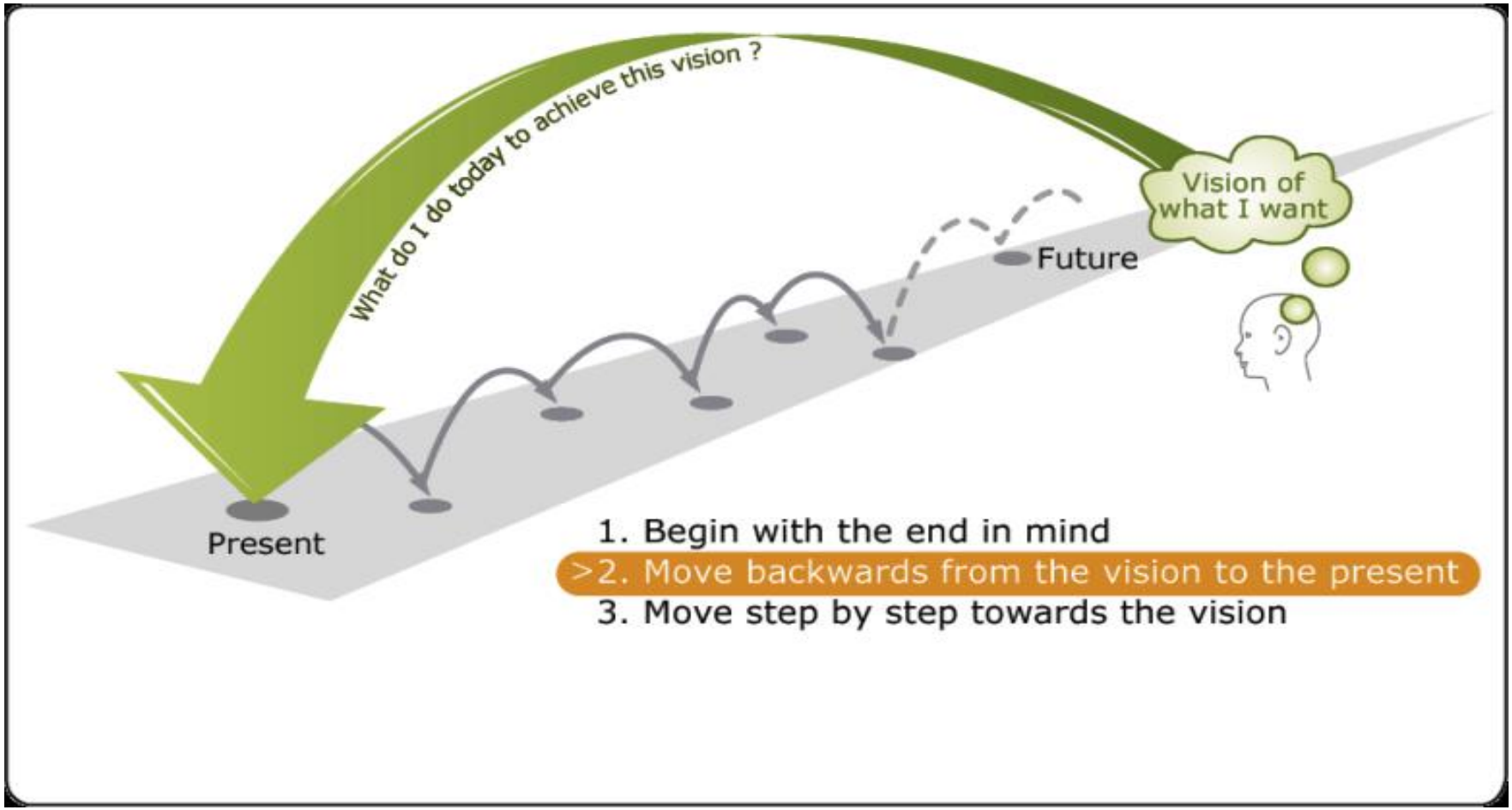
- Improve the quality of life of its citizens
- Ensure tangible economic growth for its citizens
- Improve the well-being of its citizens
- Establish an environmentally responsible and sustainable approach to development
- Streamline and improve the physical infrastructure
- Reinforce resilience to natural and man-made disasters
- Underpin effective and well-balanced regulatory, compliance and governance mechanisms



Source: ITU, 2014

HOW DID WE DEVELOP THE VISION?

BACKCASTING



'Generating a desirable future, and then looking backwards from that future to the present in order to strategise and to plan how it could be achieved' (Vergragt & Quist, 2011)

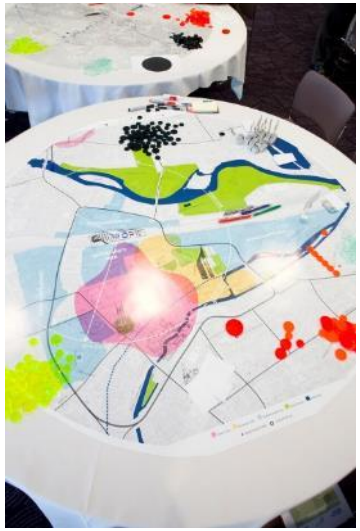
‘…DRIVEN BY THOSE WHO LIVE, WORK AND SHAPE OUR CITY…’

Since then we have engaged with a broad spectrum of people and businesses, to develop and test ideas, consulting over 21,000 members of the local community, some 350 local business representatives and hosting 15 events to discuss and shape the opportunities for Reading.

21,000 MEMBERS OF THE **LOCAL COMMUNITY**

15 EVENTS

350 LOCAL **BUSINESSES**



A PUBLIC CONSULTATION

March 2016

Step into Reading 2050

- A campaign to engage the public in the 2050 project was launched as part of Reading's Year of Culture. A Reading Bus based exhibition and supporting campaign engaged over 21000 in total including over 2000 people face to face.
- Find out more

Apr 2016

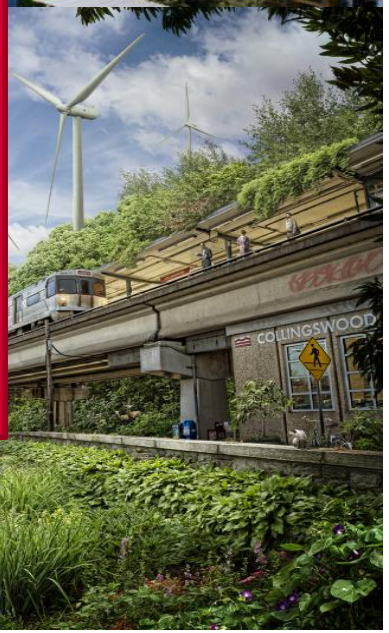
Engaging young people in Reading 2050 through Reading Year of Culture

WHAT DOES THE VISION LOOK LIKE?

'The new Reading 2050 Vision will help us establish ourselves as an internationally-recognised and economically successful city region.

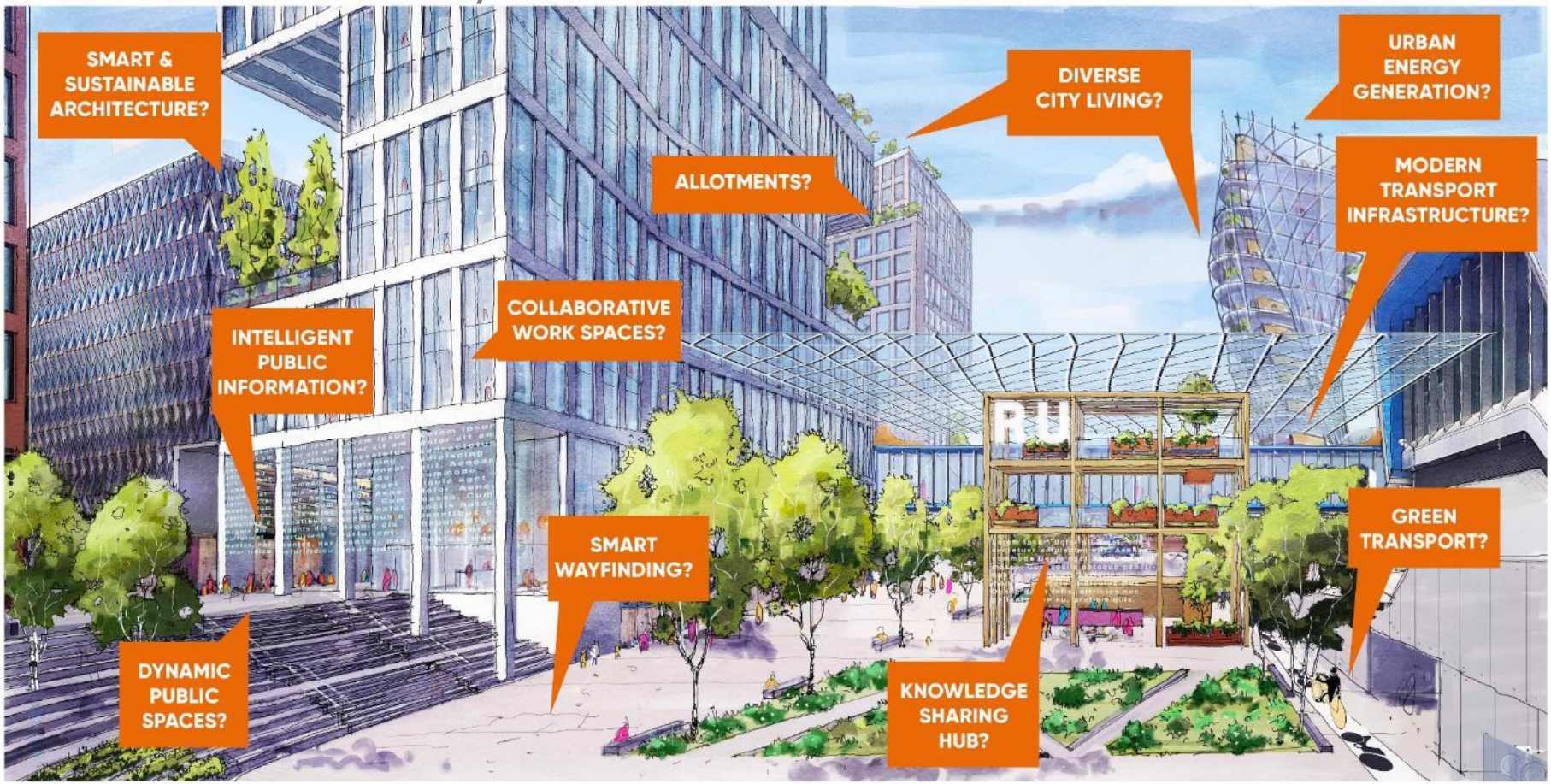
A city where low carbon living is the norm, and the built environment, technology and innovation have combined to create a dynamic, smart and sustainable city with a high quality of life and equal opportunities for all'.

www.reading2050.co.uk



A Green Tech City

Enhance our strengths in science, technology and the creative industries to provide a thriving collaborative economy and employment opportunities for all, as part of a smart & sustainable city.

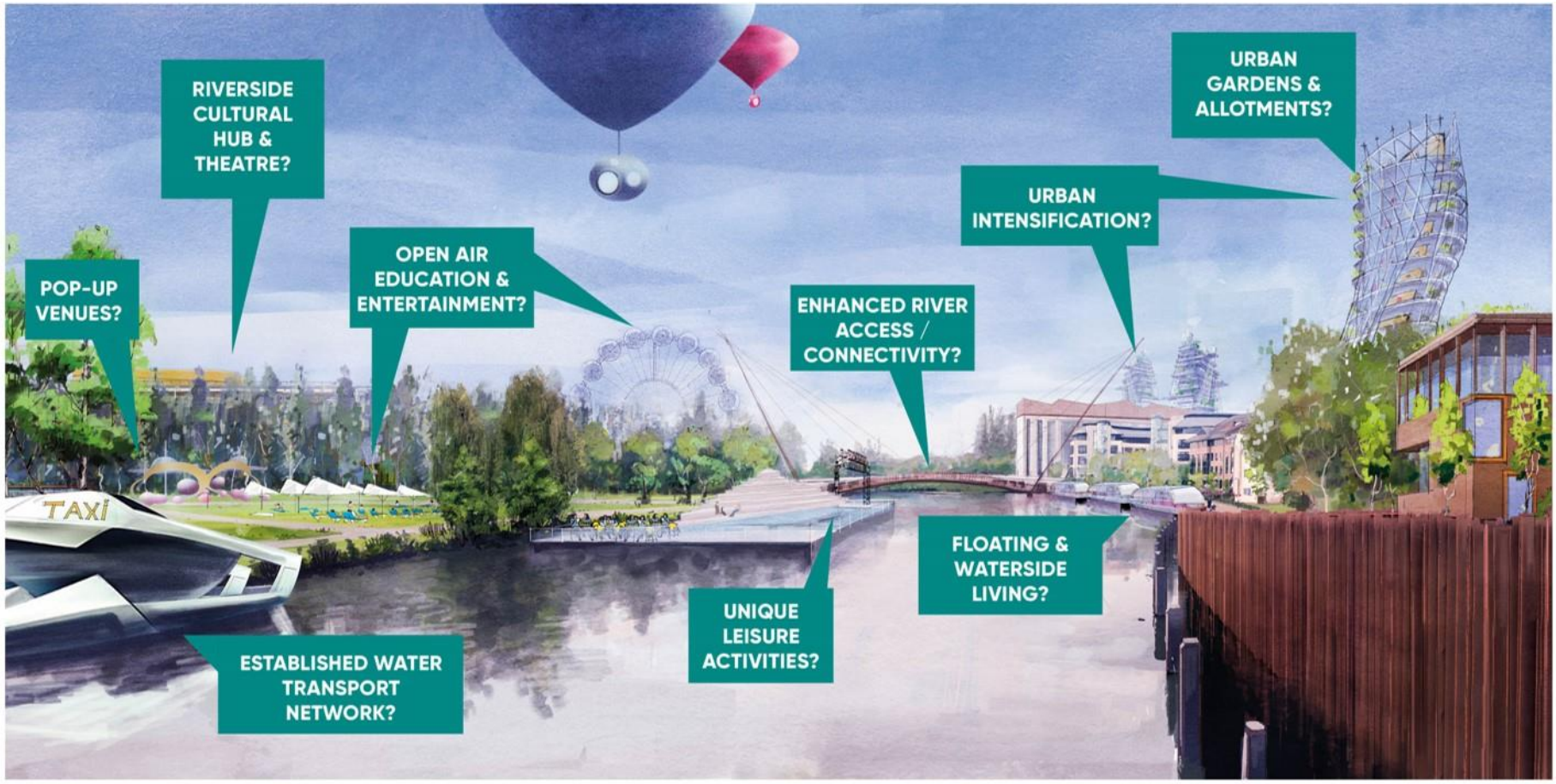


A City of Culture & Diversity

A city that delivers heritage, arts and cultural opportunities which are accessible to people of all ages/backgrounds and supports the evolution of stronger communities with a clear sense of place, city-wide.

A City of Rivers and Parks

A city that capitalises upon our corridors of green and blue to provide vital open space, connectivity and places to rest and play.



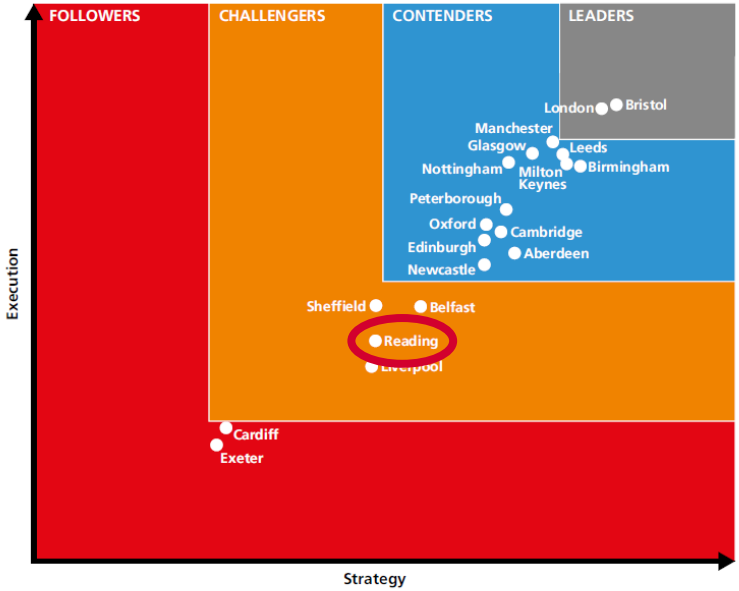
The over-arching vision statements…

SOME EMERGING PROJECTS IN THE 'ECOSYSTEM'

HUAWEI SMART CITY INDEX (2017) & DIT SMART CITIES PROPOSITION (2019)

Reading as a ‘challenger’ smart city and an ‘emerging’ smart city…..

Chart 1.1 - UK Smart Cities Index 2017



(Source: Navigant Research)

Emerging smart cities

1. Aberdeen
Aberdeen has embarked on a major reappraisal of the council’s strategy to create a new framework for improving operations and providing a platform for future innovation. The city has already undertaken a range of innovative energy and transport projects.

2. Dundee
Dundee City Council is aiming to become a digital local authority by 2020. The vision is for the council to provide enhanced services through digital and promote the use of digital so that its citizens think digital first.

3. Belfast
Belfast has a coordinated vision of its evolution to a smarter city. Drawing on existing investment in the digital sector and strengthening collaboration with city partners and local universities will create significant acceleration of innovation.

4. Liverpool
Liverpool’s work on smart and clean energy projects, its health research facilities, and its support for the growth of the local digital sector provide a good base for its developing smart city programme.

5. Sheffield
Sheffield has made strides in developing its growth plan further and implementing pilot city projects with a digital focus. There continues to be opportunity for the city to make stronger links between its broader strategy and the potential for smart city innovations, as is being explored in the Smart City Lab.

6. Cardiff
With its new city deal, Cardiff has the potential to develop and support an extensive smart city strategy. Cardiff’s ambitious smart parking project showed there is an appetite to deploy innovative technology to meet city challenges.

7. Reading
Reading is well-placed to utilise local connections to support its development as a smart city. In 2019 a two year £1.7m IoT project will demonstrate how technology solutions can meet real-world challenges in delivering public sector services.

8. Exeter
The Council is working with Exeter City Futures and others on a number of projects and has set out an ambitious environmental program. Regional plans to address transport and environmental issues provide greater scale for a range of initiatives. As one of the fastest growing cities, it will be increasingly important to address these issues in innovative ways.

9. Bournemouth
Building on Government-backed pioneering 5G mapping work carried out in Bournemouth, Dorset is spearheading the development of a Smart Place ecosystem to include gigabit fibre connectivity, public WiFi, Internet of Things, 5G (low, mid and high bands) and a platform with an open, agnostic architecture that hosts ‘place data’ – enabling application development.

SMART CITY CLUSTER – READING, BRACKNELL, WOKINGHAM & WEST BERKSHIRE

Thames Valley Berkshire LOCAL ENTERPRISE PARTNERSHIP

£1.73m Capital Funding through LEP, 2 Year Project (2018-20)

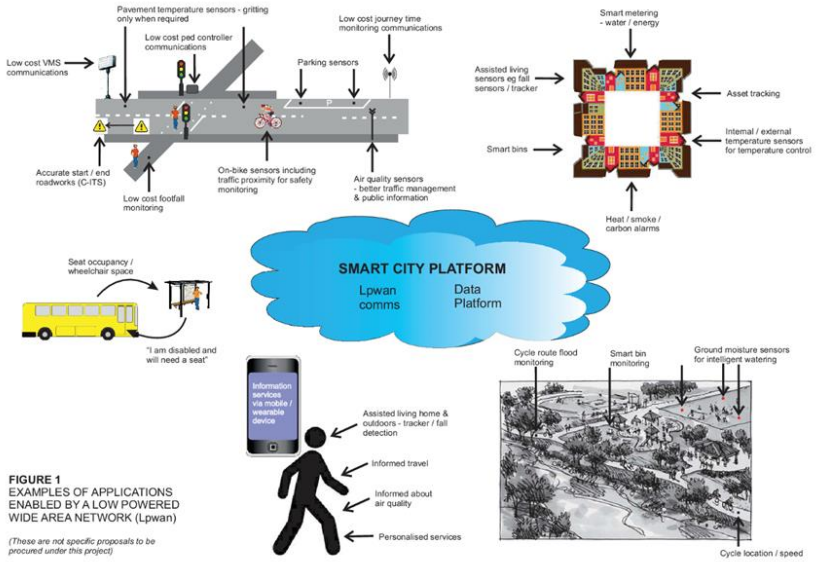
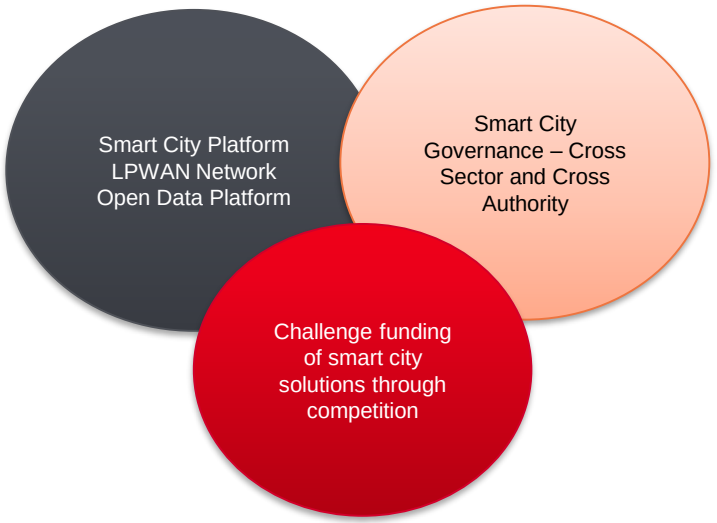


FIGURE 1
EXAMPLES OF APPLICATIONS ENABLED BY A LOW POWERED WIDE AREA NETWORK (Lpwan)

(These are not specific proposals to be procured under this project)



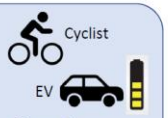
ADEPT DFT SMART PLACES

Focus on integration of key themes and outcomes

People are at the heart of our bid:
- Participants
- Easier to get around
- Safer
- More productive Thames Valley

Wide geographical spread and scaleable
- 6 Authorities
- real transferability of outcomes
- Blue chip and SMEs involved

Smart **cross-theme** thinking demonstrated through three examples in this presentation



Siemens, University of Reading, 02 Telefonica, Peter Brett Associates, Wyra, Smarter Grid Solutions, Wokingham BC, Bracknell Forest Council, West Berks Council, Slough Borough Council, Royal Borough of Windsor Council, Thames Valley LEP and Shoothil	The proposal will utilise existing infrastructure and smart communication technology. Existing sources of data from traffic signal detectors will be fused with mobile phone data in order to provide a multi-modal view of real time movement across the Thames Valley. This will link with air quality data to produce a public health exposure model. The data is expected to inform transport, environment and planning projects throughout the Thames Valley region.	£4.75 million

URBAN ROOM

Broadway Malyan
3D model of Reading town centre

Canvas for discussion about future development for students and Community

Physical space

VIRTUAL MODEL OF READING

rda 2050
STEP INTO READING'S FUTURE

DISCUSSION & CONCLUSIONS

QUADRUPLE HELIX: READING 2050

- University of Reading: anchor institution and civic university
- School of the Built Environment
- Altruism v grant funding?

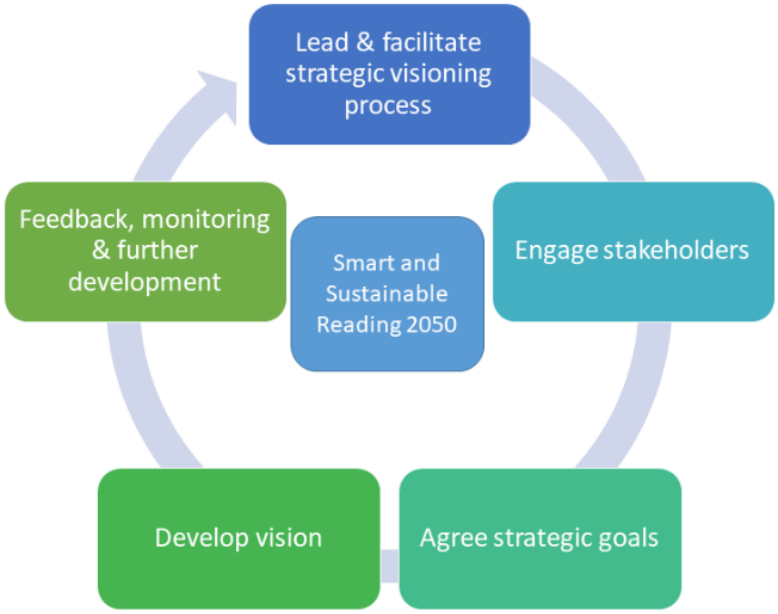
- Key brokering role of Reading UK CIC
- Inward investment/economic growth
- Reading BC's role: other LAs?
- Local plan and corporate plan

- Barton Willmore – design / workshops
- Existing knowledge and capacity
- Strong built environment focus
- Thinking longer-term?

- Role of community groups/general public
- Councillors' workshop
- 'Step into Reading'

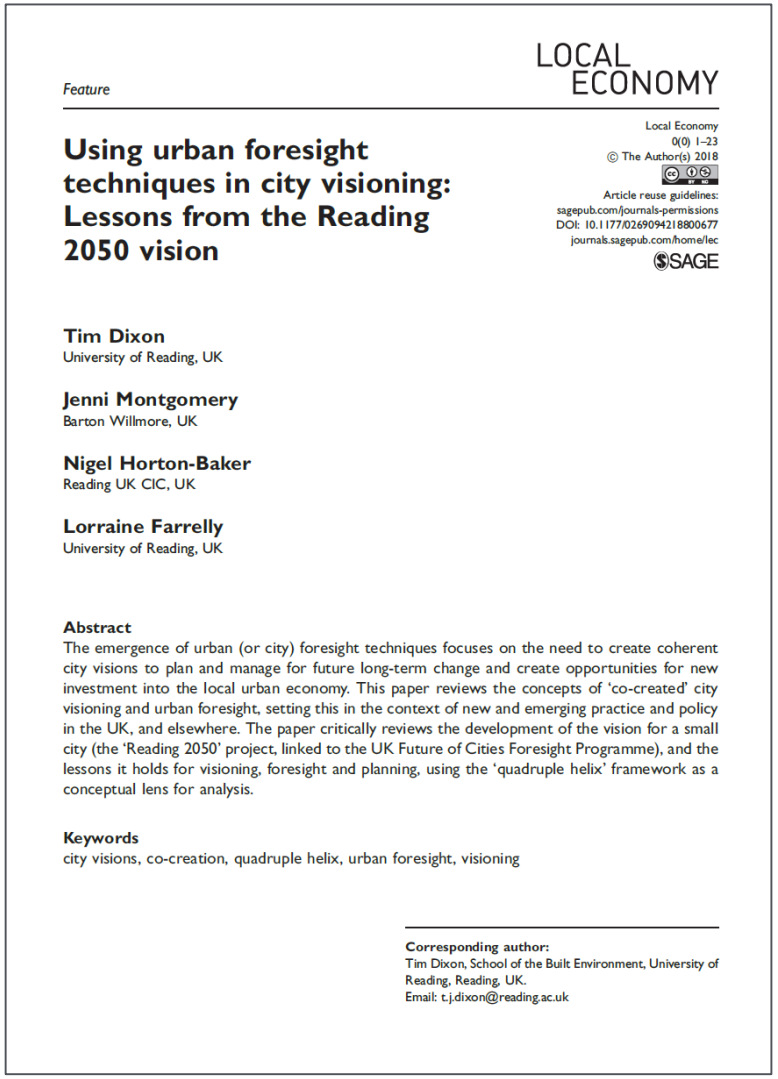
CONCLUSIONS

- Complements existing plans and strategies
- New Climate Change Strategy for Reading (RCAN)
  - Zero carbon by 2030
  - Business: a key theme
- Other opportunities for business
  - Projects and new funding as part of the 'ecosystem'
  - Existing activities
  - Connecting with the vision
- Continuing process…



THANK YOU!

www.reading2050.co.uk



Feature

LOCAL ECONOMY

Local Economy
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SAGE

Using urban foresight techniques in city visioning: Lessons from the Reading 2050 vision

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Abstract
The emergence of urban (or city) foresight techniques focuses on the need to create coherent city visions to plan and manage for future long-term change and create opportunities for new investment into the local urban economy. This paper reviews the concepts of 'co-created' city visioning and urban foresight, setting this in the context of new and emerging practice and policy in the UK, and elsewhere. The paper critically reviews the development of the vision for a small city (the 'Reading 2050' project, linked to the UK Future of Cities Foresight Programme), and the lessons it holds for visioning, foresight and planning, using the 'quadruple helix' framework as a conceptual lens for analysis.

Keywords
city visions, co-creation, quadruple helix, urban foresight, visioning

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