The City as a Laboratory
City-scale research and innovation for urban challenges

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By 2050, two thirds of the world’s population are expected to live in cities. Urban areas are rapidly developing especially in Africa, Asia and Latin America. Cities are transforming and growing at an exponential rate never seen before in history. Challenges however remain for how cities will evolve in the future especially in relation to climate change, poor air quality, poverty and other environmental and societal pressures.

Governance and society are also changing with new opportunities for urban areas to become more self-sufficient, and for communities to play a stronger role in sustainability. So-called ‘smart’ technologies are heralded as a solution but how do we design and manage these technologies in such a complex and fast-evolving space and who ‘owns’ and maintains the data that they gather?

Academic research is increasingly focused on the intersections between urban infrastructure, environmental change and society to understand how cities respond to the needs of populations, while creating a better world for future generations. Researchers are realising the potential of cities and are taking science and engineering out of the labs and into the city so that these complex interconnections can be studied at scale.

Newcastle University’s vision is to make evidence-based sustainable development in urban areas a reality. This will be achieved by establishing a long term and transformative process that integrates monitoring data, simulation models and visualisations so they can be used by urban decision makers and the wider community to envision and design sustainable urban futures.

In this workshop we will explore the ‘city-as-a-lab’ model for tackling urban challenges, and how it could be used and adapted to some of the challenges identified.

Aims of the workshop:

- Explore different perspectives on city challenges from researchers from Newcastle and Singapore
- Discuss the concept of ‘city-as-a-lab’ and explore how it has been used in Newcastle
- Discuss how ‘city-as-a-lab’ might be used or adapted to tackle further challenges in both Newcastle and Singapore
- Identify potential areas of collaboration between Singapore and Newcastle and identify possible funding opportunities and non-academic partners

Professor Phil Taylor will seek to take forward relevant outcomes from the workshop in his contribution to the UK’s Green Growth and Business Forum on Monday 9th July.