Liveable Cities Tool

The Aspirational Futures Tool

No. 4

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Civil engineers diagnose, and create solutions to, problems that we face now and those we anticipate in the future, for which a process of 'foresighting' must be adopted. One necessary approach is to develop predictions and projections of current trends: an engineering practice in which those with well-honed experience seek to create effective and efficient solutions based on what has worked previously combined with innovation, where this can be relied upon to improve previous practices.

Allied to this is the use of 'design scenarios' and adaptive planning, which will address 'what if' statements about the future. However, there is a growing tension between the ever-increasingly rapid changes in the way cities, citizens and societies operate and the fact that civil engineers design and build city infrastructures and systems that are often required to function for decades, thus 'locking in' aspects of city systems and societal behaviours. This might mean that design scenarios miss extreme and/or important, yet fundamental, future changes thereby rendering designs inefficient or ineffective.

It is for this reason that the concepts of sustainability, resilience, adaptability and liveability now feature as design requirements, and thus there is a compelling need, addressed in-part within this tool, to support engineers in augmenting the engineering process by which interventions are conceived, designed and operated to align with these concepts and the prospect of radically different requirements for the far future.

Tool Contents

The Aspirational Futures Tool is a synergistic far-future scenario methodology consisting of 3 parts:

- Part 1: A six-step guide to deriving city-based aspirational scenarios.
- Part 2: Testing the hypothesis of clustering aspirational city visions.
- Part 3: Workshop Application in two cities (see next section).

How has it been delivered?

Workshops were delivered as:

- Part 1 - attendees were presented with alternative future visions of their cities gathered from existing city visioning documents (preparatory work was required);
- Part 2 - (facilitated by representatives) attendees clustered their aspirational city visions according to three priorities: (1) Environment and Resources, (2) People and Community, and (3) Work and Economy;
- Part 3 - reflections on the workshop and overall impressions on the tool were sought.

One aspirational city vision: Work & the Economy prioritized – people & communities, resources & environment serve the vision

Where has it been published?

3 reports:

Hunt, D.V.L and Rogers, C.D.F. (2016). Aspirational City Futures: Part 1a to 1c to UK Government's Foresight Future of Cities Project.

Rogers, C.D.F. (2018). Application of Foresight in Engineering Future Sustainable, Resilient and Liveable Cities. Proc. ICE, Civil Engineering. Journal.

Who participated?

The tool draws on work done by the UoB Policy Commission on Future Urban Living datasets and utilises evidence taken from a wide range of leading thinkers on cities from the UK and elsewhere. Workshops were conducted in both Bristol and Birmingham with more than 50 stakeholders present, including: local residents, City Councillors, CEOs, NGOs, public partnerships, local police, creative and innovation hubs, health partners, local school leaders and other academics.

Levels of Usability/Testability

The tool was found to be easily usable, having been tested during evidence-gathering workshops to explore two cities' future (Bristol and Birmingham). The tool was found to be extremely useful in helping a range of stakeholders to assess the uncertainty of engineering city interventions that needed to be effective both today and in the far future. The outputs and findings of the workshop were presented to the UK Foresight Future of Cities project.

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