



The Future of Cities



The Global Challenge

In 1800, less than two percent of the global population lived in cities. Today one out of every two people is a city dweller and by 2050 it's likely that over 70% of people will live in a city. The growth of mega-cities in Africa, Asia and South America, and the rebirth of post-industrial cities in Europe and North America is creating a new wave of urbanisation. Such mass urbanisation requires a rethink about how we plan and design cities. If we want the cities of the future to be sustainable and healthy places for people to live, the city of 2025 will need to look radically different.

Cities are the engines of the global economy: just 600 urban centres generate 80% of global GDP. Today, the economic power of cities is primarily found in the developed world with 20 percent of global GDP contributed by North American cities alone. However, this is changing and the trend is likely to accelerate. By 2025 the centre of growth will move to the emerging economies with cities in China, India and Latin America forming the largest city economies supplanting cities in Europe and North America from the list.

Cities consume 75% of the world's natural resources, and produce more than 60% of greenhouse gas emissions. As a result, while the economic power of cities continues to grow, they remain vulnerable to the by-products of their success.

Rapid urbanisation is placing strains on the economic, environmental and social fabrics of cities. Challenges caused by a growing population such as traffic congestion, pollution and social tensions as well as diseases such as cancer, obesity and depression represent a growing challenge to policy makers.

Climate change poses a new and worrying challenge for cities. Already 50% of cities are dealing with its effects, and nearly all are at risk. Over 90% of all urban areas are coastal, putting most cities on earth at risk of flooding from rising sea levels and powerful storms.

Our cities are also home to a sizeable and increasing older population. By 2050 there will be two billion people aged over 60 worldwide, a 250% increase on today's figures. Many of these people will live in cities. In developed countries, 80% of older people are expected to live in cities by 2050, while cities in developing countries will house a quarter of the older population.

Japan has faced this population change earlier than many countries and faces an enormous challenge with extra pressure on public services and appropriate housing. With more than 30% of the Japanese population aged over 60 – far higher than any other country – Japanese architects and planners have taken a major role in adapting urban environments to support healthy ageing

Mass Urbanisation

Today one out of every two people is a city dweller and by 2050 it's likely that over 70% of people will live in a city. The growth of mega-cities in Africa, Asia and South America, and the rebirth of post-industrial cities in Europe and North America is creating a new wave of urbanisation. Such mass urbanisation requires a rethink about how we plan and design cities.

Consuming Cities

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Floating Cities?

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Adapting for Ageing Populations

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of populations. This experience will soon be of global interest - by 2050, there will be another 64 countries where over 60s represent over 30% of the population.

This combination of environmental pressures, changing economic patterns and demographic change means that the cities

of the future will need to be designed to operate differently. These challenges also present with them huge opportunities. With the right focus and resources, cities can become more sustainable - urban planning, design, technological and governance models could all facilitate this.

Options and Possibilities

Creative Hubs

Globally, cities have a long history of fostering social and practical innovation. New technology has enabled cities to evolve and reinvent themselves, fostering a better quality of life for their inhabitants in the face of huge social, environmental and technological upheaval.

Living Cities

As technology becomes more sophisticated, new approaches can combine to create place-based design that addresses the health and environmental impacts of cities, improving public transport, and by making denser development and more compact spaces more appealing to potential residents... Technology can help plan growth in a more integrated way – addressing societal, environmental and design issues across a range of locations.

Digital Engagement

Cities are also starting to use digital platforms to better plan for the future and encourage public engagement in the future of their cities... Using new technology and big data to support strategic planning of a city can help improve public engagement with the process.

Globally, cities have a long history of fostering social and practical innovation. New technology has enabled cities to evolve and reinvent themselves, fostering a better quality of life for their inhabitants in the face of huge social, environmental and technological upheaval.

An understanding of an area's demographic, problems, capabilities and environmental constraints could play a key role in informing the design and planning of cities to enable as many people as possible to achieve a fulfilling, social and active life.

The planning of cities has already been transformed and can go much further with the right resources in place. Pen and paper has long been supplanted in most cities by a wide range of electronic data devices, geographic information systems, satellite mapping and visualisation software. These offer urban planners and designers a deeper insight into human behaviour as well as a greater understanding of the physical attributes of sites, to inform design and how it is delivered. As the technology becomes more sophisticated, these new approaches can combine to create place-based design approaches that, for example, address the health and environmental impacts of cities by integrating routes which will make it more likely city residents walk and cycle as well improving public transport, making denser development and more compact spaces more appealing to potential residents.

New approaches are also enabling architects and planners to better understand how cities impact their environments. Increasing the use

of natural features helps reduce flooding by improving sustainable drainage, and prevents cities from overheating. Incorporating green infrastructure also helps to support mental wellbeing, thereby, also yielding savings in future health budgets.

Technology can help plan growth in a more integrated way – addressing societal, environmental and design issues across a range of locations. Interesting examples can be seen in cities such as Rio de Janeiro which is pioneering new digital transport and governance systems, through a citywide operation centre that connects all the city's 30 agencies, from transport to the emergency services. On a day-to-day basis, it helps officials from across the city collaborate on running public services more smoothly and efficiently. In the event of crisis, such as a collapsing building, the operation centre helps roll out a coordinated response. Transport systems can be shut down, emergency services mobilised and gas supplies can be cut off, while citizens can be informed of alternative routes via Twitter.

Cities are also starting to use digital platforms to better plan for the future and encourage public engagement in the future of their cities. In Asia a number of emerging cities are working with partners to develop models for sustainable growth that learn from the current generation of cities.

Developing these models further will be crucial to generate popular support if the city of 2025 is to benefit from new approaches. In the UK RIBA has explored the idea of a digitised planning system, using

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new technology and big data to support strategic planning of a city and help improve public engagement with the process. Public consultation software, online forums and social media are now increasingly used to capture public opinion to test ideas, evolve proposals and disseminate information.

New approaches can also inform the way we design for an ageing population. Urban design can help older people live healthier and more socially active lives by creating more inclusive spaces. Their wellbeing

can be enhanced by designing affordable, accessible, well-connected housing that connects with local amenities more directly.

Understanding this group's needs will increasingly become more important at the city-scale to help local authorities develop innovative housing that can bring out the most of older people but also impact on younger age groups in a very positive way. Designing inclusively for all generations is the way to create successful integrated communities.

New Models and Measures

We will need measures at the national level to help enable new technology to play a role across boundaries. Globally, a strong cultural shift will be required – moving away from the model of business as usual to an approach that enables the economy to thrive within resource constraints.

Proposed Way Forward

The planners and architects of tomorrow will have a range of tools available to them that their predecessors had likely never dreamed of. Predicting which of these developments will be truly transformative is an impossible science and will vary significantly from city to city. But exploring the potential implications and applications of a range of technologies will highlight the range of possibilities ahead of us - leaving us both prepared and in a position to better control the fate of cities.

In order to do so successfully, it will be crucial to retain a focus on utilising technology as a means to anticipate and manage change within urban areas to create and maintain good quality sustainable environments.

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2015 will be crucial to the future development trajectory of cities in 2025. In September, the United Nations is expected to agree a new set of Sustainable Development Goals which will define a new set of international development objectives, one area expected to be included is an objective to make cities more sustainable. In December,

the Paris summit will attempt to finalise a new climate change agreement. Although the impact of the two global agreements will be crucial in ensuring future prosperity for cities, national, regional and local governments should seek anyway to develop smart city solutions to ensure cities can be future-proofed effectively.

There will be no one size fits all or quick solutions to the complex interests and failings accumulated over centuries of development. Local governments will therefore be crucial in creating ambitious and proactive area-specific planning policies and programmes that integrate climate change, public health and ageing population priorities into planning policies and development to achieve a long-term approach.

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Impacts and Implications

People-Powered Planning

In an era where the public voice is becoming easier to access and harder to suppress, it will become increasingly hard to generate support for new initiatives without taking public views into account... City leaders, planners and designers will need to incorporate continuous feedback loops that provide information about a range of social, economic and environmental changes into their thinking to maintain public and political support.

Lasting Design

[We need] a shift toward a circular economy that is restorative, both naturally and technically. Buildings have to be built to anticipate future change, rather than using design standards based on existing conditions. improve performance.

If a strong global commitment to sustainable development and tackling climate change is set in 2015, and bold leadership and new technology is fostered by national and local governments; the city could start to look completely different by 2025. Cities can become cleaner, greener, healthier and more pleasant places to live, while still driving economic growth and fostering innovation.

This comes with a significant caveat. Creating new places proactively and with future changes in mind will require a culture shift within those who plan, build and design our cities.

In planning, more multi-disciplinary thinking will need to be applied to urban development strategies and design, to ensure a variety of changes can be accounted for and addressed. Greater participation from the public will be required to gain a deeper insight into their needs and preferences. In an era where the public voice is becoming easier to access and harder to suppress, it will become increasingly hard to generate support for new initiatives without taking public views into account. The era when planners, architects and builders could create new cities from a blank canvas without heed to the social or environmental impacts is over. City leaders, planners and designers will need to incorporate continuous feedback loops that provide information about a range of social, economic and environmental changes into their thinking to maintain public and political support.

Modelling and testing various approaches will be important to arrive at the optimal design or policy intervention. This will not only require new technologies to aid this process, but also a willingness among local and central governments to adopt longer-term development approaches, and to increase public participation in design and planning processes.

In construction, this will necessitate a shift to a circular economy that is restorative, both naturally (e.g. one that replenishes fresh drinking water) and technically (e.g. building materials can be reused without polluting the environment). Buildings would also

have to be built to anticipate future change, rather than using design standards based on existing conditions. History has taught us that the cities which fail to react to the changing world face decline. With the tools at their disposal today, cities have never been better equipped to rise to the challenge. Their success in 2025 and beyond will be determined by how well they do so.

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Lead Expert – Harry Rich

Chief Executive, Royal Institute of British Architects

Lead expert on the Future of Cities.

Harry Rich has been Chief Executive of the Royal Institute of British Architects since 2009.

He was previously Chief Executive of Enterprise UK, increasing entrepreneurship in the UK, and Deputy Chief Executive at the Design Council. Harry has lead and developed businesses in industrial distribution, retailing and publishing. He has been a keynote speaker at business conferences around the world and trained as a commercial lawyer.

Harry is a governor of the University for the Creative Arts, a Companion of the Chartered Management Institute, a member of the government's Creative Industries Council and a Fellow of the Royal Society of Arts. He has been a non-executive director of the Advertising Standards Authority, a member of the international advisory board of the US-based Design Management Institute, served on the Press Complaint Commission's Charter Compliance Panel and was a Justice of the Peace.



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About Future Agenda

Context – Why Foresight?

In an increasingly interconnected, complex and uncertain world, many organisations are looking for a better understanding of how the future may unfold. To do this successfully, many companies, institutions and governments are working to improve their use of strategic foresight in order to anticipate emerging issues and prepare for new opportunities.

Experience shows that change often occurs at the intersection of different disciplines, industries or challenges. This means that views of the future that focus on one sector alone have limited relevance in today's world. In order to have real value, foresight needs to bring together multiple informed and

credible views of emerging change to form a coherent picture of the world ahead. The Future Agenda programme aims to do this by providing a global platform for collective thought and innovation discussions.

Get Involved

To discuss the future agenda programme and potential participation please contact:

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Future Agenda 1.0

The Future Agenda is the world's largest open foresight initiative. It was created in 2009 to bring together views on the future from many leading organizations. Building on expert perspectives that addressed everything from the future of health to the future of money, over 1500 organizations debated the big issues and emerging challenges for the next decade. Sponsored globally by Vodafone Group, this groundbreaking programme looked out ten years to the world in 2020 and connected CEOs and mayors with academics and students across 25 countries. Additional online interaction connected over 50,000 people from more than 145 countries who added their views to the mix. All output from these discussions was shared via the futureagenda.org website.

Future Agenda 2.0

The success of the first Future Agenda Programme stimulated several organizations to ask that it should be repeated. Therefore this second programme is running throughout 2015 looking at key changes in the world by 2025. Following a similar approach to the first project, Future Agenda 2.0 builds on the initial success and adds extra features, such as providing more workshops in more countries to gain an even wider input and enable regional differences to be explored. There is also a specific focus on the next generation including collaborating with educational organizations to engage future leaders. There is a more refined use of social networks to share insights and earlier link-ups with global media organizations to ensure wider engagement on the pivotal topics. In addition, rather than having a single global sponsor, this time multiple hosts are owning specific topics either globally or in their regions of interest. Run as a not for profit project, Future Agenda 2.0 is a major collaboration involving many leading, forward-thinking organisations around the world.

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