



RICS VISION FOR CITIES: PLANNING AND DELIVERING URBAN INFRASTRUCTURE TO ACHIEVE SUSTAINABLE GROWTH



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Introduction

This is a discussion paper which scopes the challenges of planning and delivering long-term infrastructure¹ in cities to support their sustainable growth.

The framework surrounding environmental sustainability and economic growth in cities will be used to identify some broad best practice principles city administrations need to take into account when planning their forward infrastructure plans, as well as key infrastructure issues to consider, and will set out potential areas for further research to support policy makers and the property profession in delivering sustainable urban growth.

Sustainability is already a core principle underpinning the work RICS does. In 2009 RICS published its **Global Climate Change Strategy**, which sets out RICS actions to support the global transition to low carbon built environments. While RICS has published a number of urban and sustainability-focused publications², this paper marks a step forward in developing a comprehensive set of measured and tested principles for infrastructure planning and delivery.

¹For the purposes of this paper and related research, the key infrastructure to be focused on are: waste, water, transport, energy, telecommunications and sewage. However, in emerging cities, large-scale housing growth is intrinsic to sustainable spatial planning and therefore in these places should be considered in the same way as other infrastructure.

²Examples include: *Urban Regeneration is in your hands!*, 2008, and *Industrial buildings – strategic review of issues associated with conversion for adaptive re-use*, 2008.



Planning and delivering city infrastructure for sustainable growth

The need to examine infrastructure planning and delivery for sustainable cities

Given the unique challenges each city faces, it is impractical to develop a detailed toolkit to apply best practice infrastructure planning and delivery from one city that can be applicable to other cities across the world.

Additionally, the relationship between the city and surrounding urban settlements is key to any examination of a city's sustainable infrastructure planning. In the context of increasing public spending constraints worldwide, it is not only critical, but timely, to analyse public investment priorities in supporting successful and sustainable urban growth.

Central to examining and evaluating targeted sustainable and successful growth are underlying assumptions regarding urban sprawl, development density, how different urban areas are zoned, and the current and future role of settlements. Investing heavily in developing a number of dispersed, equal-sized, competing settlements, the development of new settlements, and taking steps to balance the size and functions of a country's primary city will all have implications on economic and environmental sustainable growth and should be explored further.

RICS will use this discussion paper as the basis for further consultation with property professionals, global city administrations, urban policy makers and academics throughout 2010/2011, to identify and develop specific research and analysis to facilitate the planning and delivery of infrastructure which supports sustainable urban growth.

If you wish to contribute to the development of policy in this field, please contact RICS at the address on page 11 of this paper to discuss specific ways to be involved.



Sustainability and ‘success’

Environmental sustainability and supporting the transition to a low carbon built environment is not a standalone issue, and is increasingly being seen by policy makers across the world as needing to be integrated within wider sustainable development strategies.

Sustainable development was importantly defined by the Brundtland Commission in 1987³, as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”. As a core strand of the three pillars of sustainable development (alongside economic and social) environmental sustainability in city infrastructure development is essential to a city’s overall success.

The proliferation of indicators, toolkits and models designed to establish the interrelations between human activity, urban development and the environment, and the introduction of regulatory measures and standards have gone some way in limiting the unsustainable impacts of new development.

Global urban sustainability – progress and challenges

- The local and global impacts of evolving cities have vitally important environmental significance – including emissions levels, consumption of resources and protection of habitats.
- The compatibility of goals for successful city economic growth, social equity and the environment is keenly debated by academic, policy and professional experts, but there is now broad agreement that urban development is essential to support sustainable economic growth, social equity and world stability.
- The scale of development needed to accommodate the increasing worldwide population presents serious challenges to global sustainability, and asks serious questions of property professionals in shaping the cities of the future.
- Much remains to be done to mitigate the environmental effects of existing development through retrofitting commercial and residential buildings and upgrading infrastructure as well as place shaping to promote more sustainable urban lifestyles practices (such as increasing the use of sustainable transport), and to improve living conditions within cities.

³The Brundtland Commission (formally the ‘World Commission on Environment and Development’), *Our Common Future*, 1987.





Key issues relating to sustainable spatial planning

- The effects of land use and the location of development on physical movement within and between cities and their impact on relationships between economic, social and environmental sustainability, especially as multi-centre urban regions emerge.
- Redevelopment of the spaces between buildings and the proper funding, development and responsibility for green infrastructure.
- A recognition of the relationship between urban form, density, function, diversity, green, public and privatised spaces, in promoting vibrant and sustainable development.
- Support for integrated strategic, economic and spatial planning, vision setting and management to support connected urban growth that often extends beyond, and cross-cuts, government administrative areas and boundaries.

Drivers affecting the planning and delivery of city infrastructure

The first decade of the 21st century has marked a transition in world development. Evolving global economic changes which guide international investment have sweeping implications for the way in which cities, the built environment and infrastructures need to be developed to accommodate the future world population successfully. Interdependent developments of information and communications technologies (ICT) and global financial flows create new challenges for the planning and delivery of infrastructure to enable sustainable future development.

Key drivers for global city growth and place shaping

1. Progressive urbanisation has already resulted in over half the world's population now living in cities. Linked to technological, informational and economic shifts worldwide, very large cities of the future will be the principal location for human habitation, in-migration, social and economic reproduction and work.
2. The technological and information revolution of the 1980s and 1990s has given major, mature and emerging cities a critical role as a concentration of the people, knowledge and talent required to support the development of the global economy.
3. The international dispersal of knowledge-intensive, business and professional services (e.g. finance, legal, accountancy) facilitated by ICT development and cheaper travel, has made such cities specialised service centres for offices of businesses which enable global production networks, supply chains and trade to operate and which add value to all economic sectors.
4. The creative resources, capacity for innovation and economic dynamism of these cities also gives them an essential role in supporting the economies of their wider regions and countries.
5. The development of global office networks for international business services is generating significant physical, as well as virtual, mobility of people, labour, goods and commodities within and between cities. These resource flows between cities remain dependent on physical infrastructures, such as high speed internet cable and transport networks.
6. The increasing complexity of high-value, specialised international business functions, requires continuing close proximity of skilled labour, suppliers, clients and competitors in densely clustered city locations to be able to compete successfully in international markets.
7. Private sector investment in these clusters also provides essential investment into the city infrastructures needed to support resource flows such as high speed internet cable and public transportation as well as offices.
8. Many cities are also extending outwards to form large functionally interconnected urban regions (recently referred to as global 'mega-city regions') that stretch beyond the metropolitan boundaries of the city.
9. These very large city regions generate high volumes of cross-cutting commuting and business travel not currently supported by sufficient rail and sustainable transport infrastructures and investment. They present a major challenge for strategic planning across local and political boundaries.



Emerging versus mature cities

Emerging and mature cities have very different challenges in delivering sustainable infrastructure and place shaping, and this is related to the available land and existing land use.

In cities which have evolved around historic business areas with myriad existing land rights, parks and amenity areas, business interests and protected, historic buildings, the challenge to achieve higher levels of sustainability is centred on the adaptation of the existing systems and linkages. This is in marked contrast to younger emerging cities which are able to adopt best practice processes of laying out whole new business, residential and industrial areas.

Because of these different contexts, RICS' further research to examine effective ways to plan and deliver infrastructure for sustainable growth will differentiate between the distinct challenges facing historic and emerging cities.

Principles for sustainable and successful urban growth

The external and internal drivers for 21st century cities, which are identified on page six, are crucial for policy makers to understand, as they give the context for forecasting the growth pressures each city will face in the coming years.

Building on the role these drivers play, RICS asserts that the most important principles which cities need to adopt in planning and delivering long-term infrastructure for sustainable growth are:

1. **Identifying the existing and future role of the urban settlement**, based on evidence of its likely business growth, movement of people and goods, and its relationship with other urban settlements.
2. **Setting a long-term city vision and spatial plan which is not rewritten according to every political change.** This enables a degree of predictability for investors and allows the necessary integration of long-term infrastructure planning with overall spatial growth.

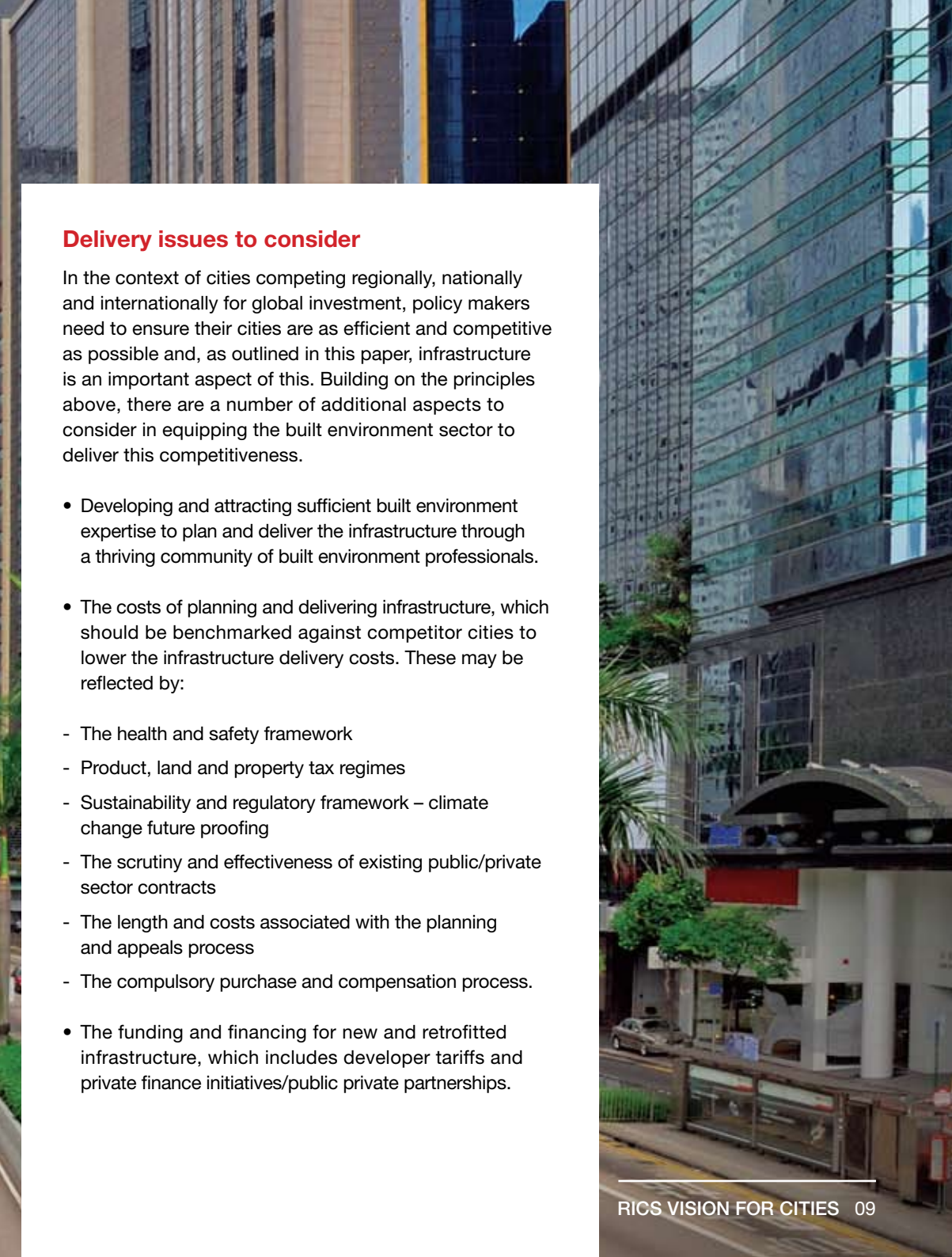




Delivery issues to consider

In the context of cities competing regionally, nationally and internationally for global investment, policy makers need to ensure their cities are as efficient and competitive as possible and, as outlined in this paper, infrastructure is an important aspect of this. Building on the principles above, there are a number of additional aspects to consider in equipping the built environment sector to deliver this competitiveness.

- Developing and attracting sufficient built environment expertise to plan and deliver the infrastructure through a thriving community of built environment professionals.
- The costs of planning and delivering infrastructure, which should be benchmarked against competitor cities to lower the infrastructure delivery costs. These may be reflected by:
 - The health and safety framework
 - Product, land and property tax regimes
 - Sustainability and regulatory framework – climate change future proofing
 - The scrutiny and effectiveness of existing public/private sector contracts
 - The length and costs associated with the planning and appeals process
 - The compulsory purchase and compensation process.
- The funding and financing for new and retrofitted infrastructure, which includes developer tariffs and private finance initiatives/public private partnerships.



Further research

During 2010/2011 RICS will be drawing on its members' expertise to consider options for research which builds on the principles and steps outlined in this paper, to ultimately support city decision makers, as well as property professionals, in delivering sustainable urban growth in the 21st century.

Potential issues to be informed through further research include:

- How to best attract inward investment through the development process to fund essential public infrastructure and transportation.
- How to achieve a more efficient alignment between the prominent actors involved in the delivery of sustainable city development (e.g. planners, investors, developers, construction companies, real estate agents, occupiers and infrastructure and utilities providers).
- How to balance regulatory and legislative issues (such as employment, immigration, taxation, development and building control) with market-led approaches to achieve urban sustainability (for example the development of new technologies, products and alternative energy sources).
- How best to align investment in different sized settlements to serve both local and global roles with environmentally sustainable economic growth.
- How to optimise the relationship between the potentially competing targets of achieving environmentally sustainable economic growth and supporting specific social priorities.





The role of RICS

RICS has a unique contribution to make to the sustainable evolution of cities across the globe. As an independent and chartered organisation regulating the professional standards of over 91,000 qualified members and over 50,000 trainee and student members throughout 146 countries and firmly operating within the public interest, RICS can draw on substantial shared knowledge and expertise in the property profession to help frame the principles which will promote the development of sustainable cities.

RICS members are involved in key land and property roles in cities across the globe, advising national, city and local governments, as well as commercial clients. Members are involved at every stage of the development process, from land valuation to development appraisal, planning and compulsory purchase, construction procurement and project management. Once construction is complete RICS members advise public and commercial bodies on their asset management and portfolio strategies, as well as managing facilities. RICS members are intrinsic to the economic activities and growth of the built environment.



Contact

If you have any questions, or would like to discuss further work planned by RICS on this topic, please contact:

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RICS is a **regulator** of both its individual members and firms enabling it to **maintain the highest standards** and providing the basis for **unparalleled client confidence** in the sector.

RICS has a worldwide network. For further information simply contact the relevant RICS office or our Contact Centre.

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