Urban competitiveness and the future of urban services

Hazem Galal
Cities & Local Government Sector Global Leader

Discussion Document

18 May 2016
Urbanization accelerated pace: By the middle of the century four of every five people might be living in towns and cities.

Cities today occupy approximately only 2% of the total land, but are responsible for 70% of economic activities (GDP). However, they are responsible for ...

We collaborated with the WEF on a study to show how can cities be part of the solution, not the problem.

Source: World Economic Forum, Shaping the Future of Urban Development & Services Initiative & PwC Research
Top urban challenges facing cities around the world

Europe
1. Social - Migration
2. Climate change
3. Economic development
4. Demographic change
5. Environment resource management

Middle East & North Africa
1. Water
2. Safety & Security
3. Innovation & Entrepreneurship
4. Migration
5. Environment resource management

Asia
1. Urban Planning
2. Environment resource management
3. Climate change
4. Water
5. Mobility

North America
1. Climate change
2. Environment resource management
3. Social inclusion
4. Mobility
5. Water

South America
1. Economic development
2. Climate change
3. Mobility
4. Environment resource management
5. Urban planning

Sub Sahara Africa
1. Water
2. Economic development
3. Innovation & Entrepreneurship
4. Safety & Security
5. Environment resource management

Africa
1. Climate change
2. Environment resource management
3. Economic development
4. Investment climate
5. Power/ Energy

Source: World Economic Forum, Shaping the Future of Urban Development & Services Initiative & PwC Research
As cities witness an inflow of 2.5 billion new urban dwellers by 2050 a new vision of the urban environment is needed

**Future City Characteristics**

<table>
<thead>
<tr>
<th>Sustainable</th>
<th>Citizen Centric</th>
<th>Economically Vibrant</th>
<th>Accessible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demonstrates balanced accomplishment of social &amp; economic development, environmental management &amp; effective urban governance.</td>
<td>Focus on the physical, mental &amp; social well-being of individuals &amp; society, encompassing many factors (life satisfaction, physical health, psychological state, education, wealth, religious beliefs, local services &amp; infrastructure, among others).</td>
<td>Attracts investments, facilitates business, nurtures indispensable assets (its well-educated people), improves productivity, promotes growth and expands opportunities for all stakeholders.</td>
<td>All sections of society in an accessible city can live independently and participate fully in all aspects of life. This city ensures that people with special abilities and the vulnerable section of society have equal access to all services provided.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Resilient</th>
<th>Well Governed</th>
<th>Responsive</th>
<th>Planned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enhances the capacity of individuals, communities, institutions, businesses and systems to survive and adapt while they experience chronic stress and acute shock across health, the economy, infrastructure and environment.</td>
<td>Optimally utilizes resources to effectively realize the short- and long-term agenda of its development, while achieving greater transparency in public decision-making and establishing institutional accountability.</td>
<td>To consume its available resources in the best way possible, such a city enables all stakeholders to use data collected by digital infrastructure to spot patterns, identify problems and make real-time decisions.</td>
<td>Strengthens its local economy by creating a master plan that integrates all urban domains, and offers enough flexibility to make amendments to the plan when external conditions change or when innovative solutions emerge.</td>
</tr>
</tbody>
</table>

Source: World Economic Forum, Shaping the Future of Urban Development & Services Initiative & PwC Research
Typical Stages of Development for a City – A maturity model based on six dimensions

<table>
<thead>
<tr>
<th>Urban Services</th>
<th>Sustainable Development</th>
<th>Technology &amp; Business Models</th>
<th>Planning</th>
<th>Collaboration &amp; Engagement</th>
<th>Organisation Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rudimentary</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basic survival needs met in terms of water, waste, sanitation, &amp; shelter</td>
<td>Access to basic services Urban poverty alleviation</td>
<td>Limited adoption of technology and few PPPs</td>
<td>Unplanned development within administrative areas</td>
<td>No/few linkages between people, processes &amp; systems</td>
<td>Structures exist, cites are not empowered or equipped</td>
</tr>
<tr>
<td>Functional</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power, transportation, healthcare and education needs met</td>
<td>Energy efficiency, Social cohesion, reuse and recycling</td>
<td>Adoption of technology for critical function &amp; enterprise management; PPP frameworks adopted</td>
<td>Planned development, with siloed planning approach</td>
<td>Linkages between people, with few linkages in processes and systems</td>
<td>Structures exist, empowered (in silos) but not equipped</td>
</tr>
<tr>
<td>Integrated</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scalable infrastructure for quality of life, green space, culture &amp; elderly care</td>
<td>Social safety, prepare for climate change, address ageing</td>
<td>Truly digital delivery, preemptive services, prescriptive analytics; PPP pipeline available &amp; limited acceptance of disruptive business models for urban services</td>
<td>Metropolitan plans in conjunction with adjoining areas</td>
<td>Digital collaboration (gov, citizens, private sector, NGOs, academia)</td>
<td>Agile governance structure, adaptive to new operating models</td>
</tr>
<tr>
<td>Scalable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mass transit, advanced education, etc. for economic competitiveness</td>
<td>Renewables, green development, address climate change</td>
<td>Process optimized, situation awareness, data-driven decisions; Smart regulations to accommodate disruptive business models</td>
<td>Integrated planning for administrative areas</td>
<td>Extensive linkages (people, system, processes) and stakeholder collaboration</td>
<td>Integrated structures with adequate capacity</td>
</tr>
</tbody>
</table>

Source: World Economic Forum, Shaping the Future of Urban Development & Services Initiative & PwC Research
As technology has been one of the drivers of transformation and is likewise driving the emergence of the new urban services paradigm.

**Top 10 Technologies Driving Transformation**

1. Open Data in Government
2. Internet of Things
3. Mobile device based sensing
4. Intelligent Transport
5. Smart Grid
6. Location & Condition Sensing Technologies
7. Citizen e-ID
8. Mobile Health Monitoring
9. Big Data
10. Data Analytics Predictive & Prescriptive

Urban domains expected to undergo transformation

- Power/energy
- Transportation
- e-government services
- Water
- Waste

- Transportation
- e-government services
- Citizen engagement
- Urban planning
- Power/energy

Source: World Economic Forum, Shaping the Future of Urban Development & Services Initiative & PwC Research
An approach for Transformation

1. Identify DNA
2. Identify Challenges
3. Develop Shared Vision
4. Identify & Prioritize Goals
5. Develop Programs
6. Revisit Regulations
7. Develop Capacity
8. Financing & Funding
9. Target Quick Wins
10. Manage Benefits & Monitor

Source: World Economic Forum, Shaping the Future of Urban Development & Services Initiative & PwC Research
Thank you!

hazem.galal@ae.pwc.com