# Information Marketplaces

## The New Economics of Cities

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The Climate Group

**5 billion**
people will be living in cities in **2020**

More than
**50%**
of **web connections** will be mobile by 2013

**Smarter logistics**
could yield **27% fuel savings**

Access to public date is estimated to be worth
**€27 billion**
in the EU

**15%**
of emissions can be saved in 2020 through **ICT-enabled energy efficiency**

South Korea's
**Green New Deal**
and low carbon strategy create over **500,000** jobs

Buildings use
**40%**
of world's **energy savings** and up to 40% of energy savings are not captured today

**Smart grid** creates
**50%**
more jobs than the average infrastructure project

**Smart grid initiatives**
have created over **12,000** jobs in Silicon Valley

**5 billion**
people have **mobile phones** today

ICT-enabled energy efficiency could translate into over
**€600 billion**
worth of **cost savings** for the public and private sector

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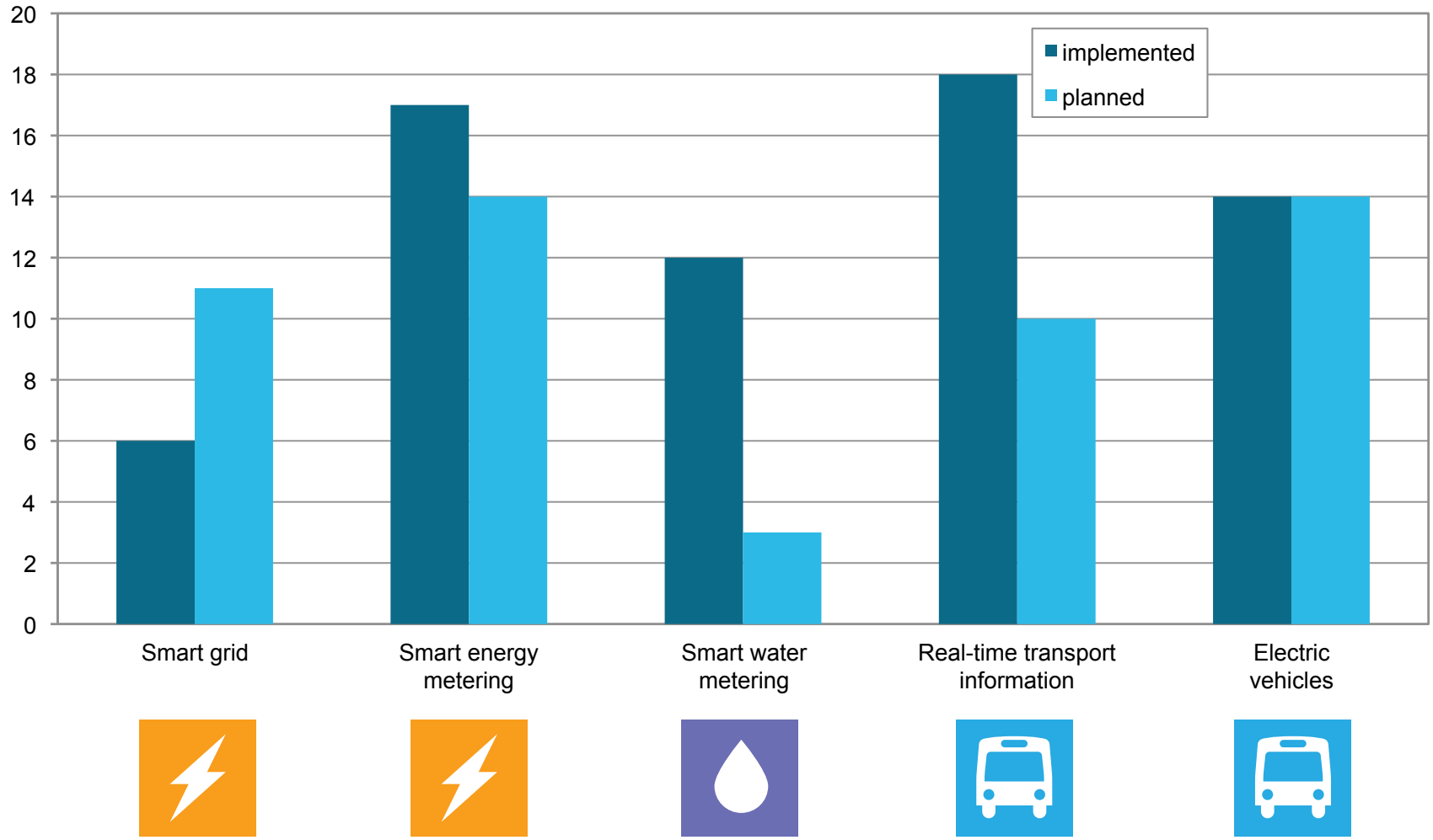
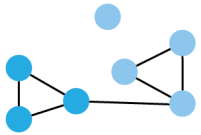
# C40 city actions



# Framework for a smarter city

| Smart City Project Implementation |  Level 1 |  Level 2 |  Level 3 |  Level 4 |
|---|---|---|---|---|
| **Soft Infrastructure** | | | | |
| Value Assessment | Individual project business cases | Some non-financial value assessed | Holistic value assessment (social/environmental/financial) | Holistic value assessment supporting diversification of funding sources |
| Governance | Departmental governance structures | Some cross-departmental collaboration | Cross-departmental 'Smart City' management positions in place | City-wide governance structures and shared performance targets combined with international collaboration |
| Strategic ICT Focus | Limited ICT capability | Some strategic focus on ICT | ICT vision for the city | ICT vision and strategy overseen by dedicated City CIO |
| Citizen Engagement with Service Design | Limited citizen engagement | Project-level, basic needs analysis, pilots | Citizen feedback loops established | Citizen participation in integrated service design |
| **Hard Infrastructure** | | | | |
| IT project focus | Little or no ICT projects | Targeted ICT project investments (e.g. Smart Grid) | Integrated ICT investments (including embedded sensing, control and actuation) | Real-time city operations optimisation |
| Integration of Data Streams | No data integration | Small scale data integration | Creative data mash ups pulling data to a common platform | Open data and crowd-sourcing initiatives |
| Digital Service Provision | Little or no digital service provision | Handful of digital services | Integrated digital services around the city environment | Diversity of cloud-based citizen services |

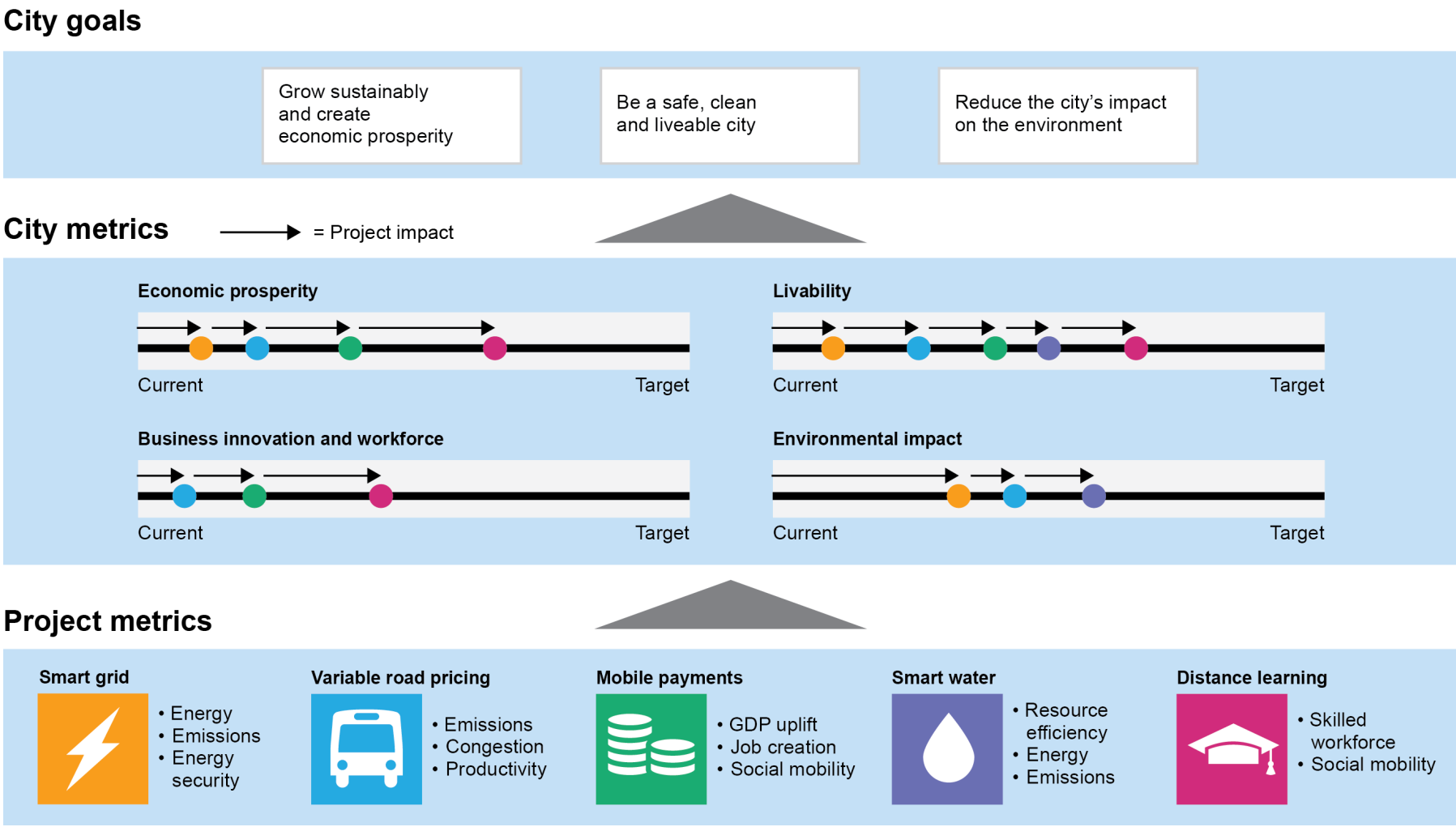
# Smart city value is not being realised today

| | | |
|---|---|---|
| 1 | **Technology -led versus issue-led** | • Smart city plans have been technology-led, rather than needs- and values- led |
| 2 | **Inability to Clearly Articulate Value** | • The value of digital investments is not being clearly articulated for all stakeholders |
| 3 | **Disparate Objectives** | • Value objectives for one stakeholder may not be aligned with social, economic, environmental value for the city |
| 4 | **Complexity** | • Cities are complex systems<br>• Decisions that involve multiple departments can take time and can often be at odds with the sales cycles of companies |

*“We have so many service providers coming to us with a ‘smart city’ offer, but they don’t seem to understand that it’s not just a matter of finding the newest, most complex system available. They know they have the product to sell and cities know they would like to be smarter, but there are a number of competing factors that go into making a match.”*

**Adam Freed**
Deputy Director for Long-Term Planning
and Sustainability, New York City

# Connecting smart cities to value

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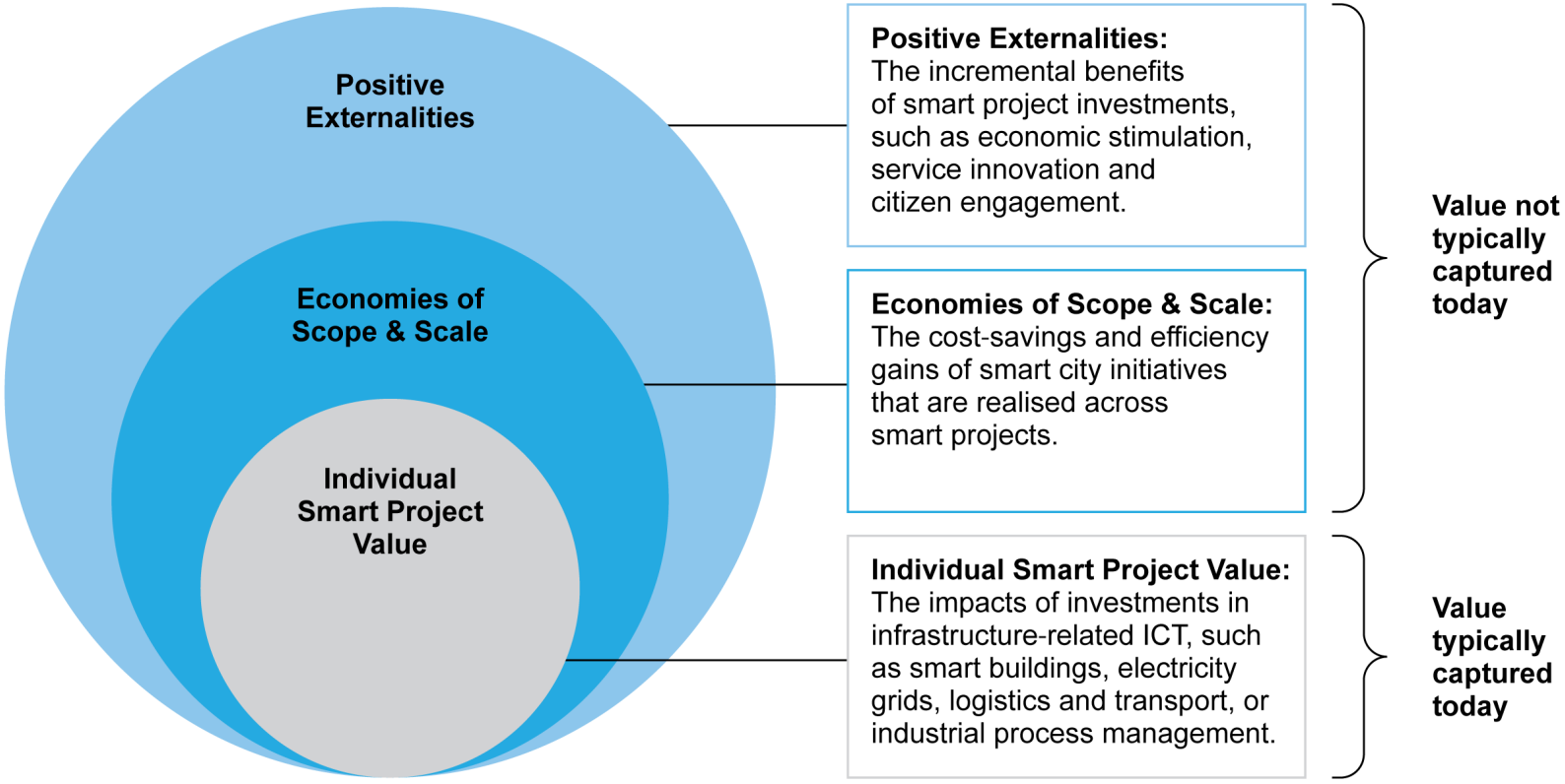
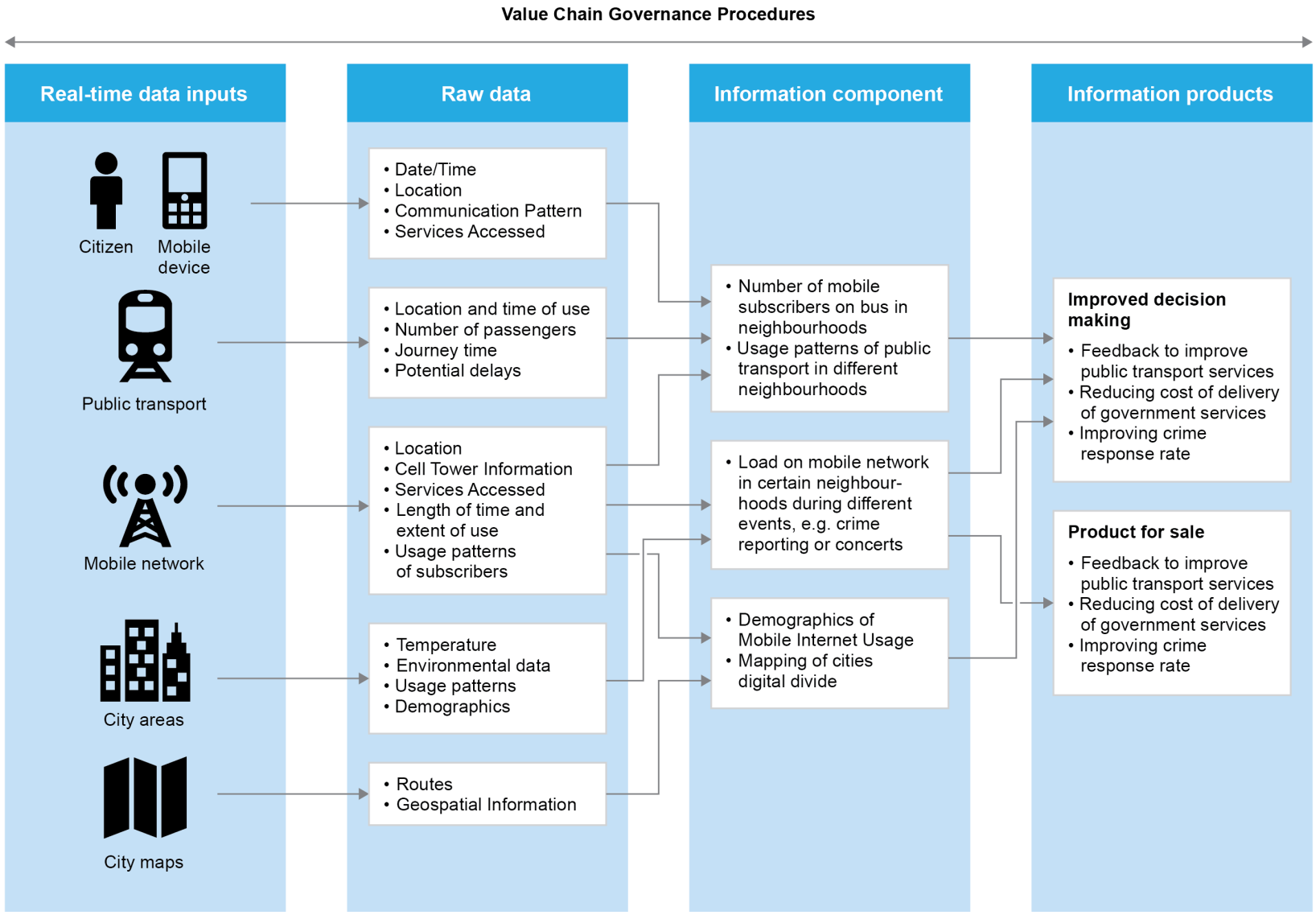
# Layers of smart city value



# Information Products – example value chain

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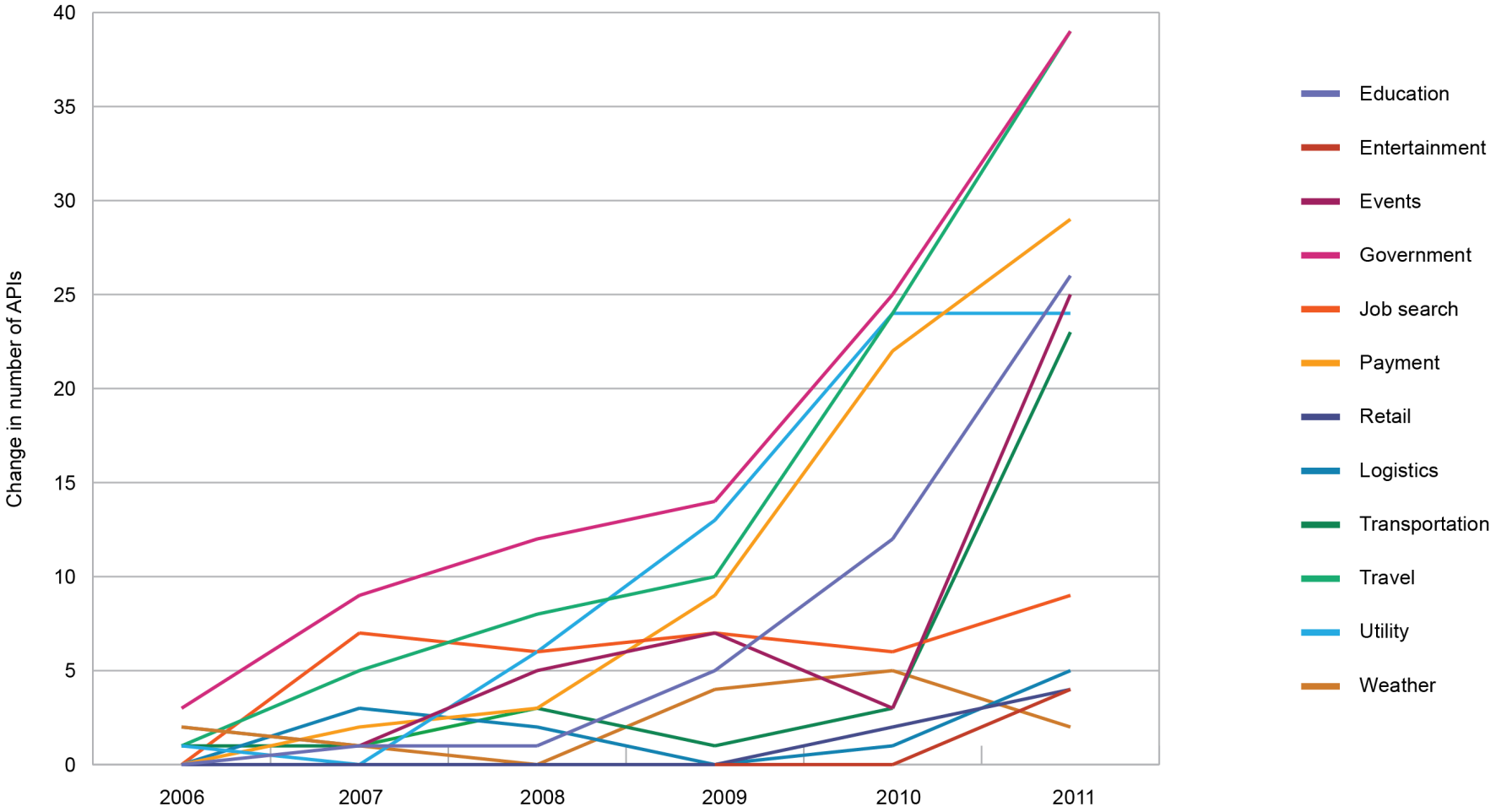
# Rates of change in open APIs associated with city infrastructure

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# 3 steps for cities

**1 Set a vision and metrics**

- Articulate the top level policy goals and outcomes
- Develop and track performance metrics
- Audit and benchmark current investment in ICT
- Prioritise investments according to the agreed vision and needs of the city

**2 Manage for success, to make the most of digital infrastructure**

- Appoint a strategy lead (CIO)
- Choose an operating model for managing digital infrastructure

**3 Create the foundation for a new information marketplace**

- Create partnerships with private sector and wider stakeholder group
- Look for opportunities to pilot business models
- Universities can be test beds
- Recognise the need for new partnerships to achieve growth

# Digital city operating model

| | No control over citizen or customer relationship | Control over citizen or customer relationship |
|---|---|---|
| **Control over digital infrastructure assets** | **Enabler** | **Integrator** |
| | **Facilitating city services:** can be open data initiatives or outsourcing of service creation based on provided datasets. Stimulating development is key<br>**Examples**<br>SF Data, Apps for Amsterdam, NYC Data Mine, London datastore | **Governmental city services:** Somewhat more closed approach, can be high cost depending on implementation<br>**Examples**<br>311<br>London cycle hire |
| **No control over digital infrastructure assets** | **Neutral** | **Broker** |
| | **Unsupported City Services:** City government does not take initiative and relies on privately funded projects<br>**Examples**<br>Trip Advisors, Some EV schemes | **City-branded services:** An unlikelier scenario that would be targeted at city-branding and city-marketing, more than service provision<br>**Examples**<br>Ljubljana Tourist Card |

# Implications for other stakeholders

## Recommendations for sub-national and national governments

**1 Common metrics**

- Encourage cities to use common, international metrics for ease of benchmarking and comparison

**2 Identify regulatory barriers**

- Identify regulatory barriers to cities' success where national or subnational policy – such as energy policy – contradicts city goals
- Support privacy, security and third-party authorised access to data policies

**3 Create collaboration platforms**

- Create platforms/ opportunities for collaboration and knowledge-sharing between business and government
- Encourage cities to learn from implementations elsewhere

## Recommendations for companies

**4 Proactively engage with the public sector**

- Understand the decision-making process of cities, to avoid pitching opportunities that are not able to be quickly decided upon
- Release relevant datasets that foster the development of new private-sector products and services

**5 Build awareness of solutions**

- Encourage pre-procurement task forces to build knowledge and harness industry leaders' technical knowledge and skills

**6 Share learning from existing pilots**

- Structure learning from trials that are appropriate for scaling up
- Use 'Russian Doll' approach

# Questions

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http://www.theclimategroup.org/publications/2011/11/29/information-marketplaces-the-new-economics-of-cities/