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Global Forum
Shaping the future

ONE CONFERENCE PRAGUE 2013

Digital Governance: From local data to European policies

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Smart Cities: Big Datas & Open Data, Challenges & Opportunities

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Smart City: a Complex Layout

- The Smart City concept first emerged in the late 90's. Around this time the European Commission supported initiatives like Eurocities
- Many projects were launched in cities
- But the new Smart City approach is somewhat different.
- E-Services are still a key component of the Smart City concept, however, other dimensions are now included, e.g. broadband, contactless technologies, smart energy, Open Data, Big Data. There are many components in building the Smart City.

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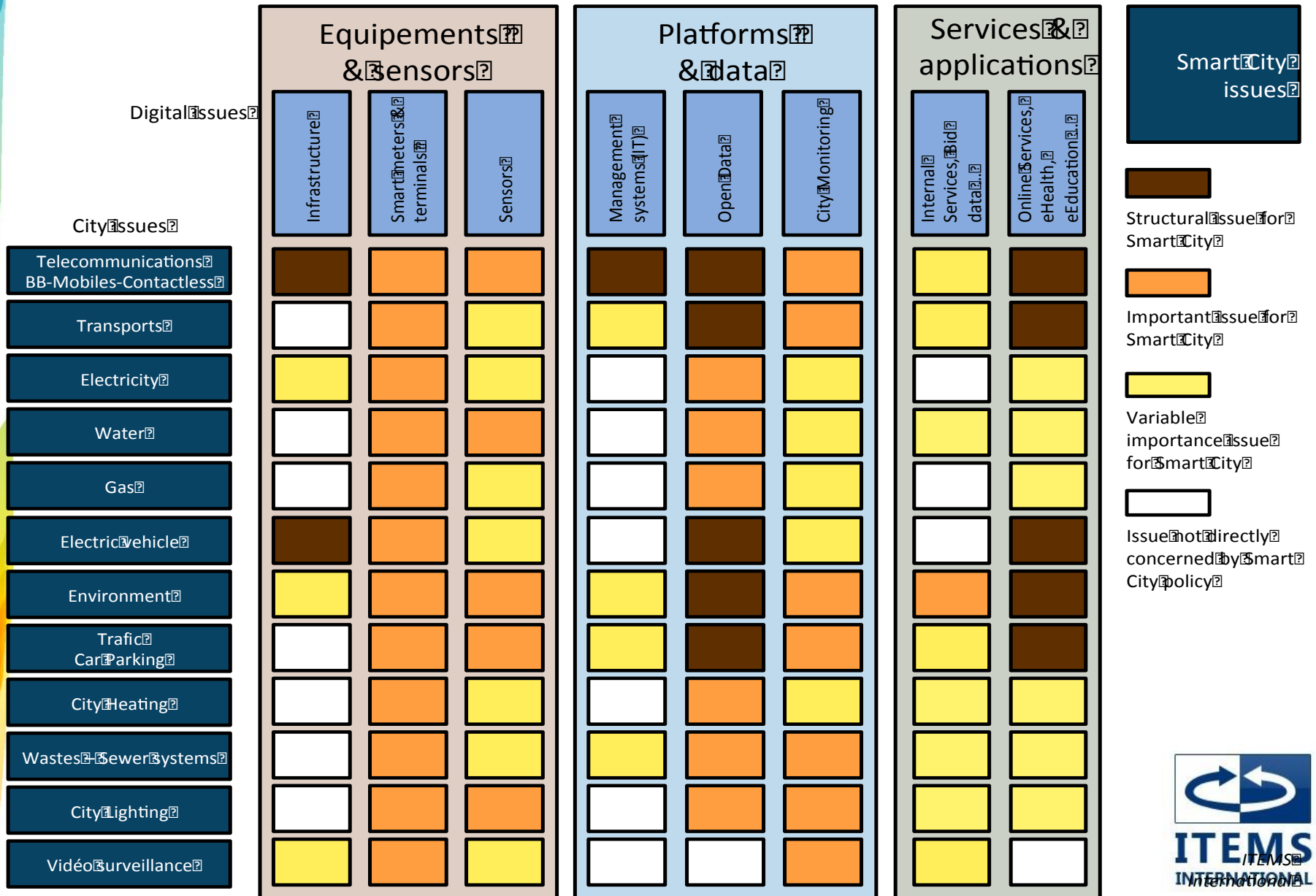
Combination of Thematics that refer to city public services & Digital issues



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Cities Challenges…..

- Training
- Staffing
- Budget
- Cooperation
- Coordination
- System capacity
- Knowledge management
- Predictive analytics

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The Role of Data in Smart City

- The development of digital technologies in the different domains in which cities operate, either directly or indirectly, is going to alter expectations among those in charge of the local administration.
- Today local administrations want:
  - ✓ **to know** the existing infrastructures in their city: water, telecom, transport, energy…
  - ✓ **to measure** the usages, the traffics and their evolution, the quality of services …
  - ✓ **to be informed** of what happens (not to be informed by the press today after that the water have been cut, or that a bus line was stopped …),
  - ✓ **to interact** with third party operators.
- The concept of urban platform is expected to make this possible. Companies like IBM, Oracle … or major Utility Operator like GDF-Suez in France have clearly understood the impact of this trend

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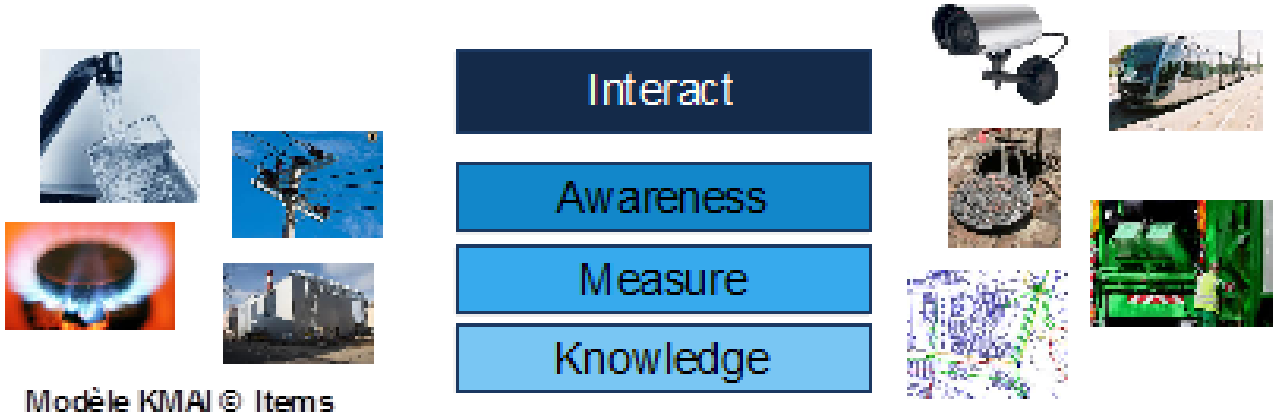
The Role of Data in Smart City



- As a consequence, a lot of data are today generated by different IT systems, which can depend on the city administration or depend on utilities third party operators.
- Historically these data have been considered as internal to the systems, as a property of the administration or of utility operators. In the recent years, however, two major issues have emerged.
- They are going to strongly impact the way the city interacts with its citizens

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Open Data

- Open Data for Smart Cities is about increased transparency, sharing the information and building useful applications
- The European Commission has pointed out the critical role of Open Data.

"I've said before that I'm a big fan of open data. Opening up public data will get citizens involved in society and political life, increase the transparency of public administration, and improve public decision making. Those benefits cannot be overestimated. And public data can be used in many unexpected ways, too: as the father of the Internet, Tim Berners-Lee, put it: "if people put data onto the web… it will be used by other people to do wonderful things in ways that they never would have imagined. There's a huge amount of money here, and a huge amount of opportunity. I want to see Europe at the forefront of this development. So I'm going to be taking action to open up Europe's public sector, by promoting creative and innovative re-use of public data." **Neelie Kroes, Nov 2011.**

- Many project have been launched in major cities all over the world. The European Commission itself funds some projects like CITADEL in which ITEMS is one of the partners which aims at Engaging citizens in promoting innovation.

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Economic Value of Open Data

- Open Gov Data in EU would increase business activity by up to €40 Bn/year
- Direct & indirect benefits up to €200 Bn/year (1.7% of EU GDP)
- Open Weather Data in US has created 400 companies employing 4000 people
- Spanish study found ~€600m of business from open data with >5000 jobs

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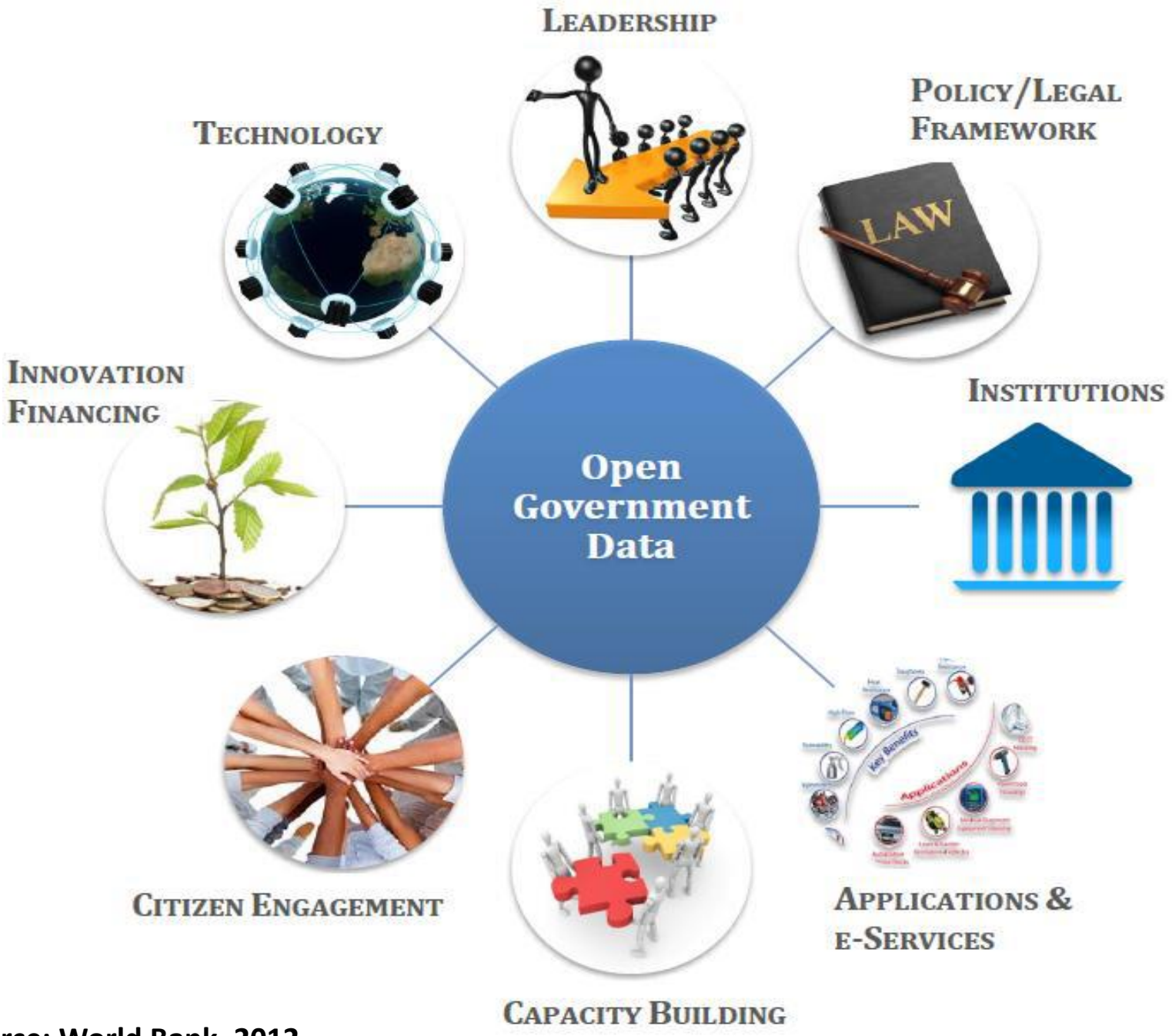

Source: World Bank, 2012

Big Data

- **90% of the world's Data has been generated since 2010 , Big Data combines data from human and computer, everyday, we create 2.5 quintillion bytes of data**
- Beyond Open Data, there is the Big Data challenge. Organizations are going to cross data coming from different source. The point is not to access to data but how to make value of this amount of data.
- The objectives can be:
  - ✓ To better understand the city: What? Where? Who? How?
  - ✓ To evaluate,
  - ✓ To anticipate:
    - On short term: traffic congestion, risks due to weather events …
    - On long term: needs of infrastructures, needs of schools …
  - ✓ To get the real, clear and understandable indicators (scoreboards) to the attention of the mayor.
- Big data makes it possible to analyze ALL available data and eliminate latency and lags in understanding crises.

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Open Data & Big Data, a must for Smart Cities

- **Big Data & Open data are the way to master information and turn challenges into opportunities.**

- 1. Allow for better decisions.
- 2. Stimulate innovation.
- 3. Foster greater collaboration.
- 4. Promote predictive analytics.
- 5. Conserve financial resources.
- 6. Become more effective, efficient, and equitable.

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Conclusion

- The issue of Smart Cities is at the cutting edge of these debates. All issues that relate to Smart City cannot be reduced to the Data but Data is probably the major engine of Smart City.
- Smart City has become a major issue for European Commission. A look on projects or initiatives supported or funded by European Commission show up the importance of Data

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