The CITYkeys experience

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CITYkeys project

The aim of CITYkeys project was to develop and validate, with the aid of cities, a performance measurement framework for the common and transparent monitoring as well as the comparability of smart city solutions across European cities.

Duration: 02/2015-01/2017
Did we make it?
Did we make it?
“Why” KPIs?

- **City level**
  - development of strategies, policies and evaluation of progress to reach them;
  - support of decision making;
  - promotion and encouragement;
  - identification and dissemination of successes.

- **Project level**
  - assessment of contributions to the municipal strategy and adaptation (interaction between city and project level);
  - assessment of success of a project;
  - upscaling and progress from experimental projects towards large-scale implementation;
  - management of resources.
Benchmarking?

<table>
<thead>
<tr>
<th>CITY</th>
<th>COUNTRY</th>
<th>TRANSPORT AND MOBILITY</th>
<th>SUSTAINABILITY</th>
<th>GOVERNANCE</th>
<th>INNOVATION ECONOMY</th>
<th>DIGITALIZATION</th>
<th>LIVING STANDARD</th>
<th>EXPERT PERCEPTION</th>
<th>RANK SCORE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Singapore</td>
<td>Singapore</td>
<td>7.20</td>
<td>6.63</td>
<td>4.20</td>
<td>10.00</td>
<td>2.26</td>
<td>6.44</td>
<td>7.92</td>
<td>7.75</td>
</tr>
<tr>
<td>4. Zurich</td>
<td>Switzerland</td>
<td>3.80</td>
<td>7.75</td>
<td>6.86</td>
<td>9.63</td>
<td>8.46</td>
<td>0.00</td>
<td>10.00</td>
<td>8.79</td>
</tr>
<tr>
<td>5. Boston</td>
<td>United States</td>
<td>2.04</td>
<td>8.70</td>
<td>7.71</td>
<td>7.21</td>
<td>3.60</td>
<td>5.15</td>
<td>4.26</td>
<td>6.56</td>
</tr>
</tbody>
</table>
2 levels of indicators

Smart City (or neighbourhood)

- Project 1
- Project 2
- Project N
## 5 categories of indicators

<table>
<thead>
<tr>
<th>People</th>
<th>Planet</th>
<th>Prosperity</th>
<th>Governance</th>
<th>Propagation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>Energy &amp; mitigation</td>
<td>Employment</td>
<td>Organisation</td>
<td>Scalability</td>
</tr>
<tr>
<td>Safety</td>
<td>Materials, water and land</td>
<td>Equity</td>
<td>Community involvement</td>
<td>Replicability</td>
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<tr>
<td>Access to (other) services</td>
<td>Climate resilience</td>
<td>Green economy</td>
<td>Multi-level governance</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>Pollution &amp; waste</td>
<td>Economic performance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diversity &amp; social cohesion</td>
<td>Ecosystem</td>
<td>Innovation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality of housing and the built environment</td>
<td></td>
<td>Attractiveness &amp; competitiveness</td>
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<td></td>
</tr>
</tbody>
</table>

CITYkeys
06/12/2018
CITYkeys has a **European approach**; tries to match the needs and priorities of European cities;

- It **involved cities** from the first day delivering high-level technical outputs that are, at the same time, adapted to and usable by cities;
- It suggests a genuinely **integrated approach** contributing in the effort to ‘break silos’ in the design and implementation of city projects;
- It builds on **existing** frameworks and initiatives;
- It uses **open** data formats, standards and interfaces;
- It introduces two necessary dimensions for integrated projects: **governance models** and **scaling-up/replication**;
- It participates in important **collaborations and synergies** with other stakeholders (EIP-SCC, SCIS, ESPRESSO project, European Energy Award, CEN/CENELEC/ETSI, U4SCC, RFSC, lighthouse projects);
- It offers the **capability** to cities to benchmark/evaluate themselves and compare their progress to other cities;
- It has produced a number of **important auxiliary documents** like a cities and citizens’ needs report, a user guidebook and policy, business models and smart city indices recommendations;
- Its smart city KPIs were adopted by the **ESPRESSO project** for its certification scheme and **ETSI** for the creation of the **TS 103 463**;
Types of indicators

- Input, Process, Output, Outcome, Impact
- Enabling vs. Impact
- Quantitative vs. Qualitative
Smart city project level: Areas where cities mostly need indicators to measure their smart city projects’ performance
Citizens & stakeholders: Most important (desired) project results
Another definition of a “smart city”

- A smart city is a city that efficiently mobilizes and uses available resources (including but not limited to social and cultural capital, financial capital, natural resources, information and technology) for efficiently
  - improving the quality of life of its inhabitants, commuting workers and students, and other visitors [people]
  - significantly improving its resource efficiency, decreasing its pressure on the environment and increasing resiliency [planet]
  - building an innovation-driven and green economy [prosperity]
  - fostering a well-developed local democracy [governance].
For the record...

- CITYkeys KPIs ([http://bit.ly/1UMsXND](http://bit.ly/1UMsXND))
- Data sources for the KPIs ([http://bit.ly/2eeXlT0](http://bit.ly/2eeXlT0))
Thank you!

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