

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?

ETSI TS 103 463 v1.1.1 (2017-07)

The image shows the cover of a technical specification document. It features a blue globe on the left, the ETSI logo (a stylized 'S' with 'ETSI' to its left) on the right, and the text 'TECHNICAL SPECIFICATION' in a blue box at the bottom left.

TECHNICAL SPECIFICATION

Access, Terminals, Transmission and Multiplexing (ATTM);
Key Performance Indicators for
Sustainable Digital Multiservice Cities





Did we make it?



ESPRESSO

systEmic Standardisation apPRoach to
Empower Smart citieS and cOMmunities!

SYNCHRONICITY





“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?

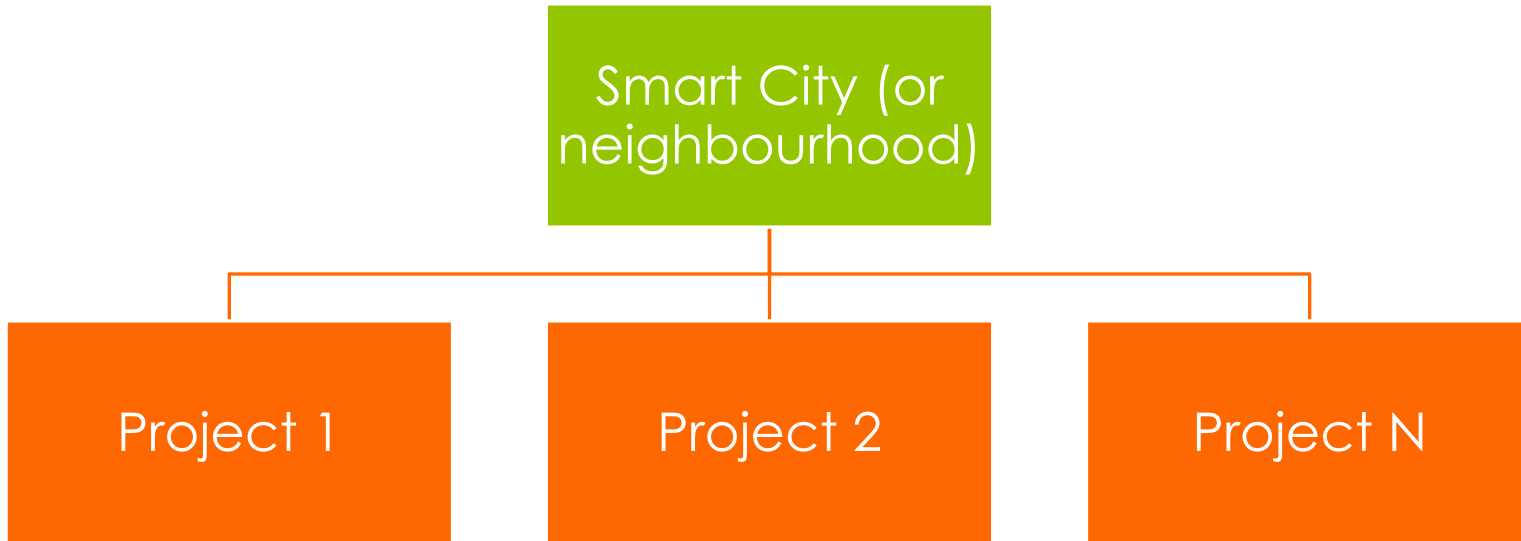


			TRANSPORT AND MOBILITY				SUSTAINABILITY				GOVERNANCE			INNOVATION ECONOMY	DIGITALIZATION			LIVING STANDARD	EXPERT PERCEPTION			
#	CITY	COUNTRY																			RANK SCORE	
1	Copenhagen	Denmark	8.81	8.62	8.48	8.42	7.90	8.83	8.24	8.18	8.38	8.53	7.08	8.85	8.01	8.63	7.66	4.01	9.74	8.70	9.12	8.24
2	Singapore	Singapore	8.20	8.63	4.20	10.00	2.26	8.44	7.62	7.95	10.00	5.47	7.82	5.12	8.62	8.71	2.75	6.63	7.56	8.88	9.30	7.80
3	Stockholm	Sweden	7.48	5.30	6.71	8.54	8.44	6.88	8.94	8.78	8.26	10.00	7.62	7.88	9.57	8.37	9.22	6.28	8.88	7.31	8.20	7.62
4	Zurich	Switzerland	8.80	7.75	4.98	9.83	8.60	10.00	10.00	8.70	2.07	8.10	8.03	8.02	9.74	4.69	4.38	5.58	7.56	10.00	8.00	7.75
5	Boston	United States	8.01	8.70	7.71	7.71	3.60	5.15	4.26	6.56	5.30	6.97	5.12	10.00	10.00	6.08	9.33	6.60	8.07	8.21	9.30	7.70





2 levels of indicators



5 categories of indicators

People	Planet	Prosperity	Governance	Propagation
<ul style="list-style-type: none"> • Health • Safety • Access to (other) services • Education • Diversity & social cohesion • Quality of housing and the built environment 	<ul style="list-style-type: none"> • Energy & mitigation • Materials, water and land • Climate resilience • Pollution & waste • Ecosystem 	<ul style="list-style-type: none"> • Employment • Equity • Green economy • Economic performance • Innovation • Attractiveness & competitiveness 	<ul style="list-style-type: none"> • Organisation • Community involvement • Multi-level governance 	<ul style="list-style-type: none"> • Scalability • Replicability





Outputs & outcomes

- 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**;





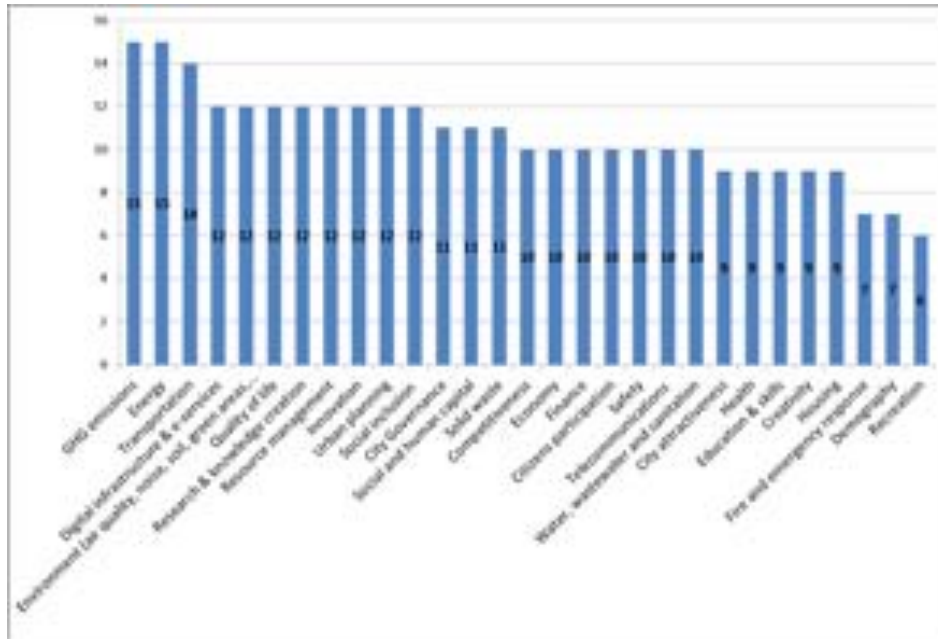
Types of indicators

- Input, Process, Output, Outcome, Impact
- Enabling vs. Impact
- Quantitative vs. Qualitative



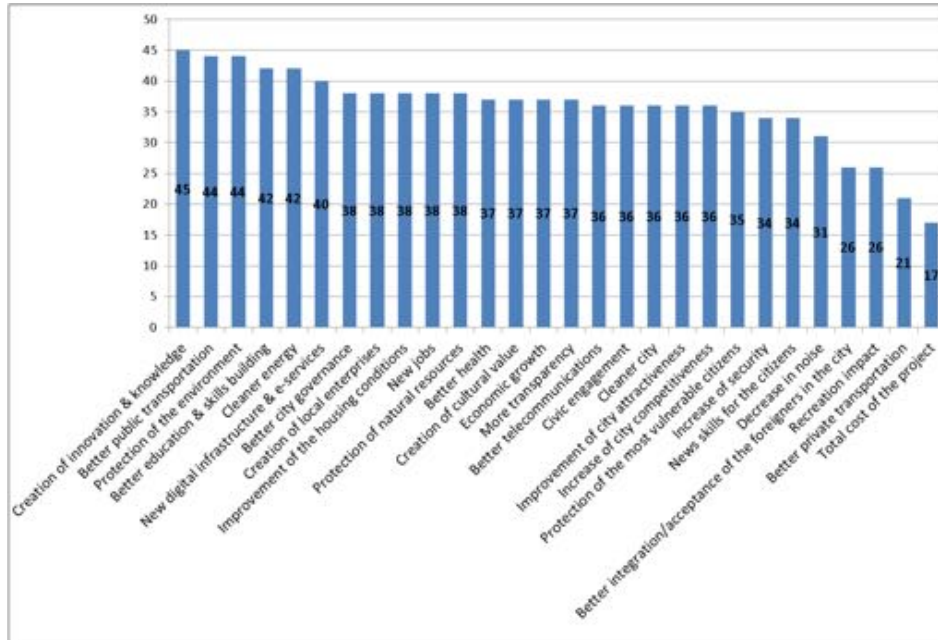


Smart city project level: Areas where cities mostly need indicators to measure their smart city projects' performance





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>)
- Data sources for the KPIs (<http://bit.ly/2eeXlT0>)
- Data collection and KPIs calculation (<http://bit.ly/2eeRMnQ>)
- Policy making recommendations (<http://bit.ly/2eNRqAL>)
- Business models and opportunities (<http://bit.ly/2f9beBu>)
- Recommendation for a SC index (<http://bit.ly/2fvcXiY>)





Thank you!

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