



Smart City Strategy Framework



Worksheet

The *Smart City Strategy Framework* provides a tool for comparing smart cities in an international context and supports cities in the formulation of new strategies.

The framework consists of a morphological box, with the 19 elements grouped into 4 dimensions: City context, governance, implementation and infrastructure. For each element, 2-6 possible manifestations are defined. Morphological analysis is a well-suited method for studying and analyzing complex problem fields that are inherently non-quantifiable, contain non-resolvable uncertainties, cannot be casually modeled or analyzed, and require a judgmental approach. Devising a smart city strategy represents such a problem. In a morphological box, all important elements are listed, and for each element, possible manifestations are identified, resulting in the definition of a multi-dimensional solution space.

On the following page, the complete box is listed and can be used in workshops with city officials.

References:

- Stephan Haller, Alessia C. Neuron, Marianne Fraefel, und Ken Sakamura. 2018. Perspectives on smart cities strategies. In Proceedings of the 19th Annual International Conference on Digital Government Research Governance in the Data Age - dgo '18, 6 pages. the 19th Annual International Conference, Delft, The Netherlands. 30.05.2018 - 01.06.2018. New York, New York, USA: ACM Press. doi: 10.1145/3209281.3209310. <https://dl.acm.org/citation.cfm?id=3209310>
- CPaaS.io Website: https://cpaas.io/?page_id=1169#strategy_framework



This document has been produced in the context of the CPaaS.io project which is jointly funded by the European Commission (grant agreement n° 723076) and NICT from Japan (management number 18302). All information provided in this document is provided "as is" and no guarantee or warranty is given that the information is fit for any particular purpose. The user thereof uses the information at its sole risk and liability. For the avoidance of all doubts, the European Commission and NICT have no liability in respect of this document, which is merely representing the view of the project consortium. This document is subject to change without notice.

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Domain /Elements	Possible Manifestations					
City Context						
Population	< 50'000	50'000 - 100'000	100'000 - 1 mio.	1 - 5 mio.	> 5 mio.	
Development Stage	Greenfield (New City)	Retrofitting (Existing City)	Brownfield			
Political System	Authoritarian	Representative Democracy	Direct Democracy			
Education Level*	< 20%	20-40%	40-60%	60-80%	> 80%	
Pressures	Demographic	Environmental	Fragility	Financial	Economic	Infrastructure
Governance						
Governance Model	Government-driven	Industry-driven	PPP			
Citizen Involvement	None	Open Communication	Co-creation			
Motivation	Technology	Quality of Life	Economic Prosperity	Ecological Footprint	Innovation	Resilience
City Role	Customer/User	Facilitator	Lead & Control	Initiator		
Responsibility Smart City process	No overall responsibility	City	City-sponsored 3rd party	Independent 3rd party		
Business Sector Development	Financial incentives	Business incubation services	Tech. transfer & commercialization services			
Approach	Project	Program	Initiative			
Regional Cooperation	City-only	with bordering region	Inter-City cooperation			
Implementation						
Implementation Model	Anchor	Platform	Beta City			
Application Domains	Single application domain	2-3 domains	Coordinated approach on 6 main domains	Stakeholder-defined		
Performance Measurement	Project-based	Dashboard				
Infrastructure						
Data Infrastructure	Per Project	Closed API	Open Data Portal	Linked Data		
Networking Infrastructure	Per Project	City-wide WLAN	City-wide IoT Network			
Cloud-Infrastructure	Per Project	City-wide platform				