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*The Future of Cities policy briefs:
a webinar series*

Cities fit for the digital age

THURSDAY 25 MAY 2023



INTRODUCTION

- * urban technologies and innovative solution can help address urban challenges and improve the quality of life of citizens
- * they represent new opportunities for cities in terms of growth and sustainability: data and urban analytics are essential for planning, development and governance.
- * technology and innovation are key enablers in cities, can actively empower citizens and inform urban planning

literature overview

- * many different definitions (smart, intelligent, wired, digital cities)
- * dichotomy hard domains - soft domains
- * reinforce current spatial disparities and introduce new ones

a more holistic approach

“ *Cities that are smart only with respect to their economy are not smart at all if they disregard the social conditions of their citizenry [...]*
technology could be used to empower citizens by adapting those technologies to their needs rather than adapting their lives to technological exigencies
(Batty et al. 2012) ”

the European approach

- * **HUMAN-CENTRIC** approach to urban technologies
- * based on 3 components # environment and sustainability
 - # (citizen) participation
 - # privacy and transparency
- * cities play a critical role in reaching EU priorities

CURRENT TRENDS

#01 AI and data analytics

#02 focus on mobility, climate, energy, sustainability

#03 individual projects in big cities

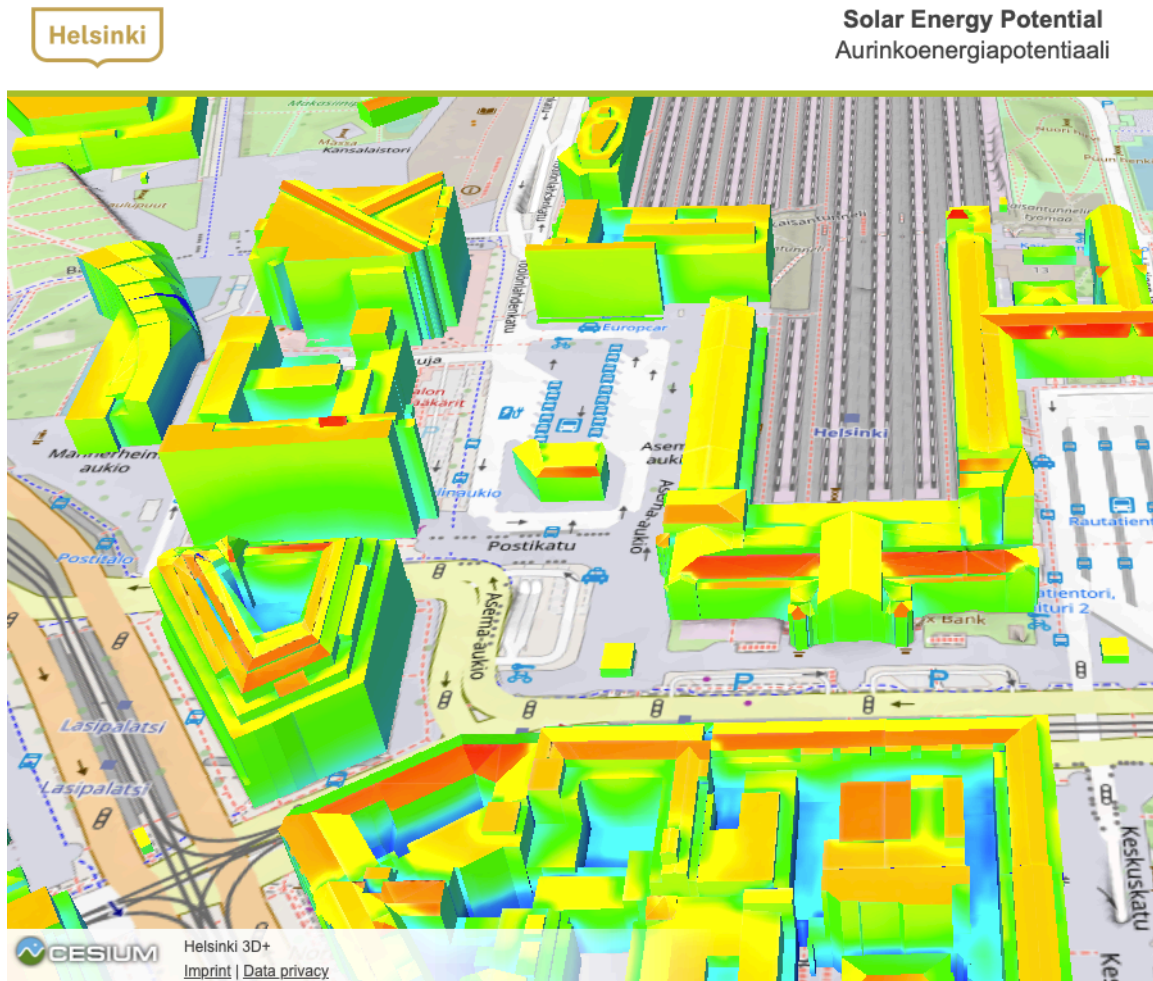
01 AI and data analytics

- * Internet of Things (IoT)
- * Dashboard and Data portals
- * Digital Twins

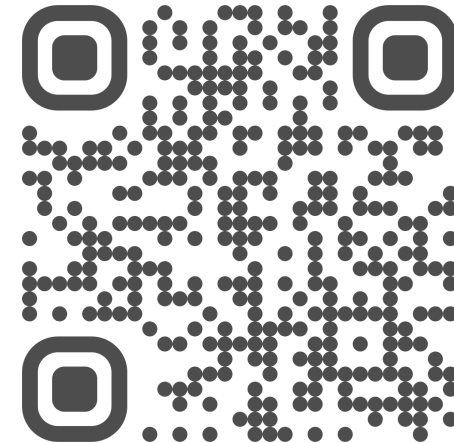
LOCAL DIGITAL TWIN

virtual representation of the city's physical assets, processes and systems, connected to data related to them and the surrounding environment

01 AI and data analytics



LOCAL DIGITAL TWIN - HELSINKI



01 AI and data analytics



1

Innovative
business
models



2

Agile freight
storage and
distribution



3

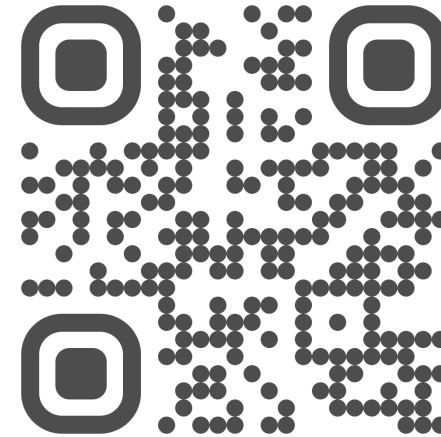
Low emission
delivery
vehicles



4

Smart data-
driven logistics
solutions

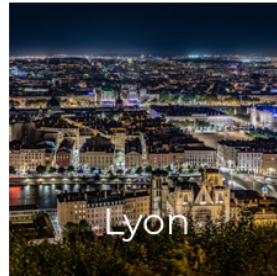
LOCAL DIGITAL TWIN - LEAD



Madrid



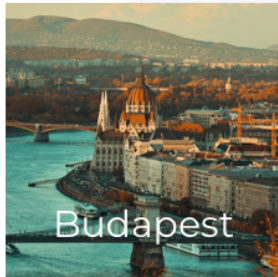
The Hague



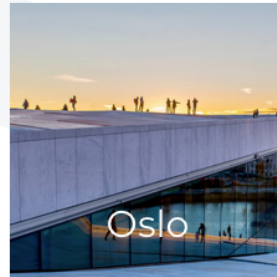
Lyon



Porto



Budapest



Oslo

02 focus on climate and sustainability

- * mobility, climate, energy, sustainability

example: 100 Climate Neutral and Smart Cities by 2030

- * optimisation and performance of urban systems (following the most traditional approach for smart cities)
- * less funding for soft domains (social inclusion, policy innovation)

03 big cities and individual projects

- * mainly on capital and big cities
- * individual projects targeting individual problems (innovation districts)
- * projects exist in silos (no interoperability)

KEY ISSUES

#01 evaluation and measurement of success

#02 reproduce and scale up successful cases

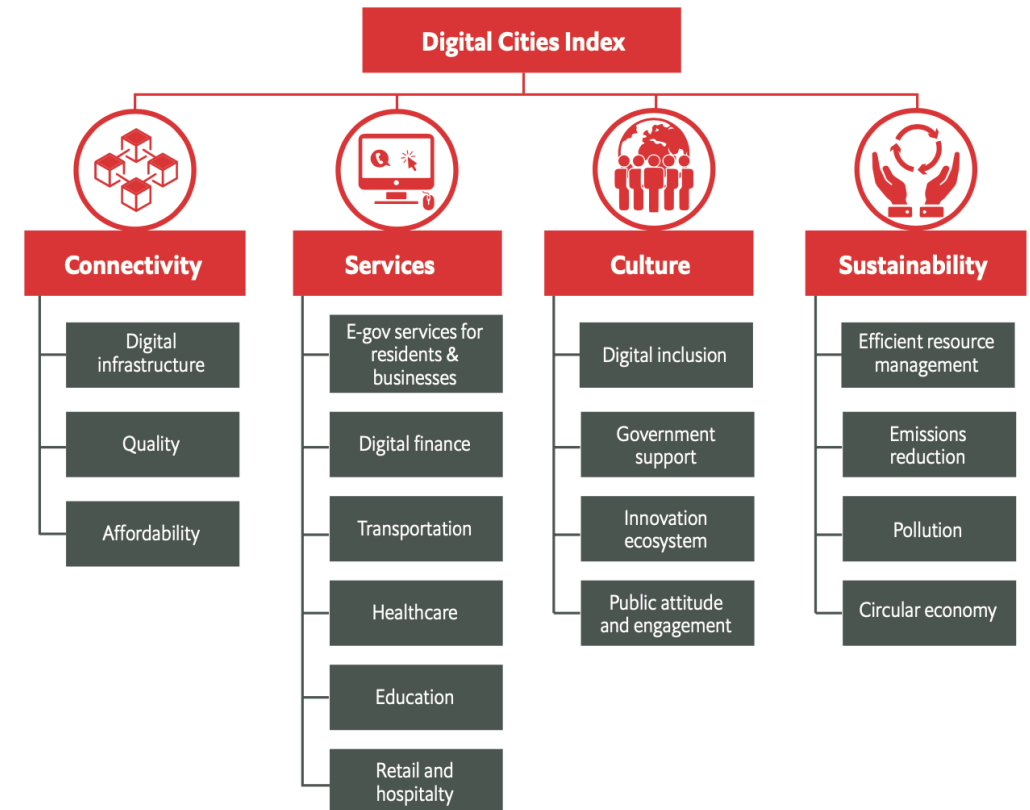
#03 data privacy, representation, inequality

01 measuring success

- * 'deliver on what they promised'
- * no agreed methods and metrics
- * LORDI <https://www.espon.eu/DIGISER>

local and regional digital indicators

Figure 1: Framework of Digital Cities Index



Source: Economist Impact.

02 reproducibility and scaling up

- * from test-beds and individual projects to > the entire city (*expansion*)
 - > other cities (*replication*)
- * this process must include small and medium cities
- * limitations related to
 - > financial / political issues
 - > lack of open data and interoperable standards
 - > lack of digital competencies

03 privacy and inequality

- * data privacy and transparency
- * bias on how AI algorithms and models are trained
- * data and representation

03 privacy and inequality

“ [Sensor] deployment is indicative of investment priorities, and therefore which people and places are represented and legitimised by smart city efforts [...] signals a de-prioritisation in terms of investment and is indicative of a lack of representation and visibility in decision-making about the (smart) city (Robinson and Franklin, 2020) ”

THE WAY FORWARD

#01 support small and medium cities

#02 data sharing and re-use, standard and metrics

#03 address the digital divide

01 support small and medium cities

- * financially with dedicated funding and opportunities

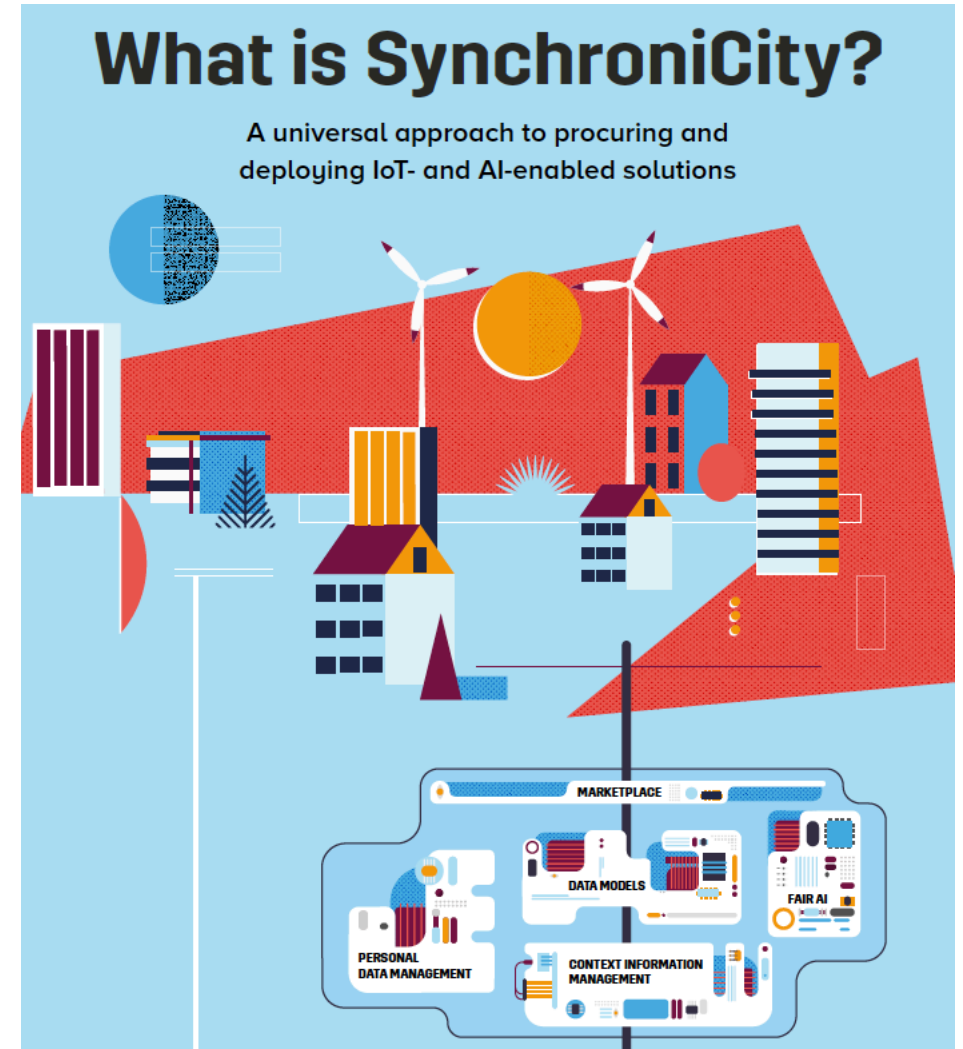
(example: EU programmes like the Intelligent Cities Challenge)

- * human resources (dedicated support, know-how, develop competencies)

- * change of paradigm: not only cities but territories (see recent report for the French territory: <https://tinyurl.com/4ty2stsa>)

02 data sharing, standards

- * interoperability standards
(<https://tinyurl.com/4bp3fw3b>)
- * data/innovation officers working horizontally across city departments

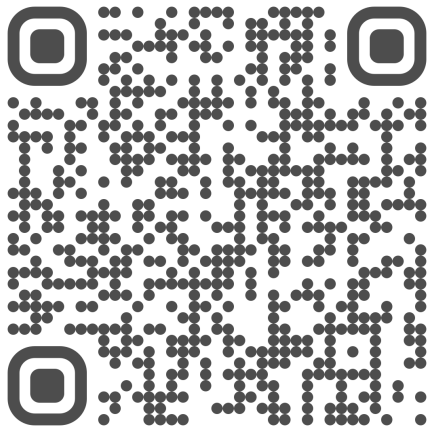


03 close the digital divide

- * technology and data adoption
- * data literacy
- * awareness of opportunities and risk

! success is not simply related to a specific technology but about people adopting and using such technology

Thank you



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