Smart Urbanism: Localizing Smart City Concepts

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- 1. A Smart City is a concept responding to demographic shifts, limited natural resources and climate change impact hazards. It aims at optimizing urban infrastructure services (e.g. water, mobility and energy supply) and at adopting natural-based-systems (NBS) on the basis of digital and Internet of Things (IOT)-based applications and technologies as well as spatial design solutions.
- 2. A Smart City is a process-driven strategy, and not a ready-made package of solutions. It can be applied in turbo-urbanizing environments (e.g. African and Asian cities) as well as in shrinking cities or economically poor regions. For instance, in the global South, where urban development is faced with challenges related to a lack of infrastructure and make-shift urban realities, the Leitbild of a "Smart City" can be used to design solutions with a focus on human capital development and micro-economic systems.
- Every Smart City is unique. Locally-specific urban conditions require locally-specific technologies, processes and solutions. Any Smart City concept and implementation strategy must be rooted in evidence-based decisions, respect available natural and human resources and acknowledge cultural sensitivities.
- 4. A Smart City impacts on all facets of citizen's lives. The digitalization of public and private services, including social or health services, housing and mobility infrastructure impacts on educational, professional and private urban life. Citizens make use of city apps, open data portals and participation tools on an everyday basis but need to involved in the digital tool design.
- 5. A Smart City relies on integrated infrastructure solutions and requires trans-disciplinary knowledge exchange derived from various sectors. For enhancing the efficiency of urban systems, multi-demand-driven solutions need to be developed. For instance, a smart street concept is successful when shared mobility services are combined with renewable energy supply as well as public space qualities offering safety and responding to the cultural needs of the local community.
- 6. A Smart City thrives on participatory multi-level governance systems and citizen engagement strategies. Co-creation, e-participation and stakeholder management will be key toolsets and key managerial skills required by Smart City implementation facilitators to enhance open innovation strategies and instigate co-ownership.
- 7. A Smart City is rooted in new business models. Any Smart City solution is a joint-product designed and implemented by a public-private entity and should be co-owned by multiple players. Integrated infrastructure solutions require co-investor strategies, new contracting and new revenue models where citizens are the beneficiaries.
- 8. A Smart City requires agile procurement systems. For the implementation of innovative solutions, a shift in legacy and tender systems is needed. For instance, the public building law would need to accommodate integrated infrastructure solutions and allow for more adaptive and agile planning instruments.
- 9. A Smart City requires new professions. The demand for integrated governance systems and multi-sectoral stakeholder management leads to new proficiencies (e.g. Smart City Curators, City Lab Facilitators, Integrated City Data Platform Manager, Smart Grid Solutions Contractor) which are active in the public as well as private stakeholder sphere.
- 10. A Smart City needs to be rooted in Smart Urbanism. If all aspects above (1-9) are respected when designing urban developments, a demand-driven, evidence-based, culturally grounded, co-created and co-owned Smart City will have been successfully created. Smart Urbanism is a new planning discipline which is process- and data-driven and which will succeed once it is embraced by citizens, municipalities, architects, planners, start-ups and private enterprises.

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