Organizational and managerial challenges for public actors working towards becoming a smart city

Globally, cities are trying to become smart to manage the challenges associated with globalization, digitization and urbanization. However, transforming into a smart city is not easy for public actors and calls for new organizational approaches and innovation in management.

Globalization, digitization and urbanization are three worldwide megatrends radically altering the world. On one hand, these megatrends come with many challenges for cities such as coping with excessive energy consumption, greenhouse gas emissions, waste management, traffic congestions, scarcity of resources and human health concerns. On the other hand, urban development presents various opportunities to exploit. To manage the emerging problems cities are trying to become smart. One of the cities trying to transform into a smart city is the City of Stockholm, which in 2017 adopted a strategy to become the world's smartest and most connected city. However, becoming a smart city is not easy. The transformation poses new organizational challenges for public actors. The organizational challenges are many, from finding new ways to collaborate across borders to improved information sharing and integration, which public actors need to address by employing new organizational approaches. The master's thesis identified twelve organizational and managerial challenges:

- 1. Multiple and conflicting smart city definitions,
- 2. lack of knowledge about the smart city strategy,
- 3. lack of management support,
- 4. unclear vision of the smart city strategy,
- 5. insufficient involvement of employees,
- 6. lack of alignment between the overall smart city goals and the initiated smart city projects,
- 7. lack of structure for exchanging knowledge,
- 8. lack of structure and routines for involving the citizens,
- 9. high presence of functional silos and hierarchy,
- 10. poor receptiveness of new ideas and resistance to change,
- 11. lack of structure for liberating time and resources for new ideas and
- 12. not embracing calculated risk.

The findings showed that public actors must have embedded organizational routines for innovation management, since innovation is required in a smart city initiative. Furthermore, the results showed that even though a public actor, like the City of Stockholm, has a favorable environment to become a smart city based on the performance in the critical success factors; economy, built infrastructure, policy, technology and the natural environment, there are three important critical success factors that must be in place:

- 1. Management and organization
- 2. People and communities
- 3. Governance

In particular, the critical success factor, management and organization should be considered. Firstly, since it has a great direct impact on the success of a smart city initiative and secondly, because the majority of the challenges linked with the eight critical success factors were mainly organizational and managerial. The City of Stockholm and similar public actors should take the findings into consideration to accelerate the smart city transformation.