Organisational Development for Smart Cities

SmartImpact is a two year project funded by the European Regional Development Fund under the URBACT programme. The aim is to promote Smart, sustainable urban development, helping to make cities more liveable with the support of technology.

This theme paper introduces the key organisational development structures and challenges involved when building new, Smart municipal organisations.

Evolving into a Smart city is a complex and challenging process. Central to this is how municipalities develop new structures and processes right across their organisation and support their staff to make Smart changes.

To achieve this, integrating data from various departments is a good starting point. From there, each organisation should engage in continual learning, knowledge management and work towards agile approaches in project delivery.

These organisation wide changes require an innovation based leadership and management approach. This method of working supports cross departmental collaboration and eases the fragmentation and siloed working often found within government organisations.

For many traditional and mature departments it may be a demanding shift to move from administration focused duties to more innovation oriented, experimental tasks incorporating new solutions and processes. There is no single model for municipalities when they enter this transitional phase but some primary themes have been identified for successful change. Strong leadership from those at the top of the organisation, a robust central body to coordinate work and new streamlined processes to meet Smart requirements.
Key issues for SmartImpact partners

Rapid and continual technological change means the development of Smart cities is a specific and many sided challenge for municipalities. It demands that government organisations become integrated, flexible, agile and innovation driven. To do this there has to be significant shifts in their cultural approach to organisation management, knowledge and education.

A number of key issues have been identified when looking at how municipalities can improve their organisational development structures to better serve Smart growth.

• Siloed offices where cross-departmental communication is poor and budgets and activities are not aligned.

• Many traditional municipalities still have a risk-adverse culture where trying something new is not rewarded.

• Smart cities must take responsibility for knowledge management. This includes, learning from mistakes, spreading good practice and new information across the entire organisation.

• Smart data management means integrated and dedicated IT systems with tools for gathering knowledge. Traditionally IT and data are siloed, without a data intelligence team helping to harness their value.

• A lack of leadership both at a political level and collectively.

• City leaders need to work towards an open and progressive learning environment where systems and information are integrated and innovation is supported.
Lessons learnt from SmartImpact partners

For many cities at the beginning of their Smart journey the work ahead may seem daunting but with the ongoing need for cost efficiency and rapidly changing economies it is even more pressing they work towards the benefits of Smart urban growth. Smart city examples from the SmartImpact network have brought up common lessons.

Cities need strong executive leadership with goals that are understood and endorsed by politicians, citizens and commerce. Dublin has made extensive progress through establishing a strategic new team and strengthening collaborations within the city.

To effect change it is important to have a pragmatic and widely communicated vision for Smart development. Cities need to allocate an innovation budget that is large enough to make real change. This should provide a clear and committed roadmap to Smart city growth, outlining commercial incentives and benefits.

Developing a Smart city is an opportunity to cut across older, fragmented structures, linking different offices and departments for the more efficient delivery of public services. Each city must work with their own unique ecosystem to develop an appropriate change in methodology.

Urban strategist, Boyd Cohen, describes the third and most mature phase as ‘Smart Cities 3.0 - a citizen centric vision of smart cities based on co-creation [with citizens] to improve quality of life and generate prosperity’. As Smart cities progress through the first - technology centric - and then second - government led - stages of Smart growth, it is vital they then progress to incorporate a third, user centered, design approach. B.Boorman, A New Digital Deal. Boekscout BV, 2017.
Actions to develop a new kind of city approach

A new model of collective leadership - collective leadership can be defined as a group of people who collaboratively guide processes and projects towards positive and sustainable outcomes. In the context of a Smart city, leaders such as heads of departments, municipal companies, mayors and citizen representatives work collaboratively to deliver a set of shared goals.

A Smart shift in narrative can be driven from above, positively reinforced by local politicians and leaders. It can also be expedited by creating an incentivised environment where those in public office value innovation and continuous improvement over old, entrenched systems.

Including other stakeholders into the leadership system of the city has the potential to transform Smart city progress and makes best use of the local innovation ecosystem. Through continual networking and promotion of Smart city benefits local stakeholders like small businesses, academia, citizens or companies see the positive impacts, cost savings and funding possibilities of engagement.

Cities can also create a change makers network from within their organisation, a forum for the exploration of ideas and information. They can invigorate the forum by involving external thought leaders and innovators.

Actions to develop a new kind of city approach

An organisation that develops and manages a Smart city has to provide excellence in strategic management. In this context it is the continuous monitoring, analysis and planning of everything necessary for a municipality to meet the long and short-term goals of running a Smart city. Integral to this approach is the balancing of long-term strategies with short-term investments.

An overarching municipal strategy will bare much more fruit when underpinned with appropriately designed IT based tools that link processes across departments, promoting efficiency. It is important that strategic management teams recognise the distinction between an internal IT department and those entrusted with data management in a Smart city context.

A separate data unit can ensure a number of key factors are delivered and available and potential data sources are mapped across the city. Data needs to be managed in an interoperable way and importantly, to make sense of the data, used to identify opportunities for new or improved municipal services.

Creating a learning organisation

By adopting a systems thinking approach a municipality can begin to think beyond the boundaries of departments, disciplines or organisations. This enables public officials to understand the city as an integrated system. For Smart city progress this shift in analysis is essential because it examines how the constituent parts of the city interact with each other.

Knowledge sits at the centre of the Smart city and this is built up through individual learning. This personal mastery can happen in the workplace via formal training or more commonly through incidental learning so it is essential to foster a culture of education. Embracing a genuine culture of knowledge and learning means enabling people to take more risks.