



IBI GROUP'S TOP 10 Smart City Strategy Success Factors

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What is a Smart City and why do we need a Strategy?

What Smart City means to each individual community is often unique. In general, a Smart City is a city or region that can increase its competitiveness and quality of life, efficiently use resources, and support economic sustainability by using technology and creativity to raise the IQ of the built environment. Further, it is a city that uses innovation to address the needs and desires of the community, puts the citizens first and ultimately breaks down the barriers between agencies and departments, and between people and government.



We have realized for some time that technology benefits cities, and in many cases have used it to help with problems that individual public sector departments or agencies are trying to address. Simple examples include building an app to have citizens report traffic or potholes and building telecommunications networks to coordinate traffic light timings. The difference in a Smart City is that the various departments and agencies work together collaboratively to share information, applications and technology in innovative ways to solve multiple problems. This team work in turn drives more financial benefit, makes stronger connections with citizens, and helps the city to become more sustainable and competitive.

While it sounds like an intelligent thing to do, it is logistically challenging because it requires breaking down barriers, sharing costs and benefits, developing stronger communication links between stakeholders, and most importantly, being more open and agile. Individual departments and agencies have their focus on obligations, goals and budgets and have for decades been working in their domain to deliver specific mandated services. It is for this reason that we need to develop Smart City strategies to break down these siloed barriers, help individuals work through opportunities, and build momentum that cuts across all departments and agencies, ultimately resulting in a net social benefit for citizens.

Most cities have strategies for critical infrastructure components like information technology, transportation, utilities, urban planning, as well as broader strategies for economic development and environment. The goal of a Smart City strategy or master plan is to cut across all of these areas, break down barriers, and enable the realization of the goals of all city plans combined.

There is now considerable focus on helping communities realize the benefits of the Smart City approach. One of the ways this has been achieved is through the issuance of “challenge” competitions that encourage cities to be bold, think out of the box, and develop strategies and projects that demonstrate to other cities what can be done. One example is the Smart Cities Mission in India that used a challenge competition method to select cities for funding to implement their vision for a Smart City. Another is the U.S. DoT Smart City Challenge that, while administered through a transportation agency, was focused on cutting across all sectors of city operations and driving social value for the community.

An example of a private sector approach to Smart Cities is the Smart Cities Council, which is a network of companies, universities and standards bodies that have banded together to promote technology in cities focused on the core values of livability, workability and sustainability. The Council has also issued a Smart Cities Readiness Challenge that brings industry and government together to help cities build momentum and find ways to realize their goals.

There is a highly anticipated Canadian Smart Cities Challenge program being developed that will have a focus on creating and implementing Smart City solutions that have a strong social return on investment, solve real city problems, and can be used as a model for innovation that can be quickly adopted by other cities.

One thing that all challenge-winning cities have in common is that they have had a strong Smart City Strategy in place that allowed for their winning response to be more “shovel-ready”, and to build off momentum that had already been created.

A Smart City Strategy helps communities to be closer to realizing their goals and to be more prepared for any new incentive funding that becomes available. Leveraging early foundational work drives significant value-add to projects.

Based on IBI Group's international involvement in Smart City Strategy development and implementation, we have identified the Top 10 Smart City Strategy Success Factors as the primary factors that contribute to cities and regions achieving their goals through Smart City initiatives.

Top 10 Smart City Strategy Success Factors

Following these tips will start your community down the right path to achieving your operational goals and the benefits for your citizens. It will have the added benefit of positioning your city for additional private and public sector funding to maximize your investments and achieve the greatest benefit.



1. STAKEHOLDER BENEFITS

A strategy with clear benefits attributed to individual stakeholders is a success factor that will be notable in the continuous feedback received from the stakeholders, indicating the level of satisfaction or dissatisfaction of the Smart City elements. Strategies that are developed based on real needs are more likely to have a **measurable outcome**.

Specific strategies can be quite complex for the everyday citizen and for senior leadership that need to be onboard with the plan. It is critical to spend the extra time to put the strategies into context that can easily be understood by both government leaders and citizens.



2. ENGAGEMENT & BUY-IN

Engagement and buy-in from city departments, regional stakeholders, residents and businesses is critical for success. Engaging early and often sets the city apart as a leader. Engagement also aligns with a common pillar for Smart Cities, which we call the **Citizen Connect**. This overarching pillar is crucial in the success of the strategy as it will inform the budgets, and impact acceptance during implementation.

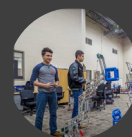
We have to remember that a Smart City is anchored in a strong connection with its people. It is critical that the connection starts with the development of the strategy through the engagement process, including businesses, residents and special interest groups. This sets the tone for how inclusive the city is, and will encourage citizens to be active and ongoing participants in the operation and direction of their community.



3. REGIONAL ALIGNMENT WITH A COMMUNITY FOCUS

A Smart City Strategy should reinforce linkages and collaboration within the region as a whole. Businesses and residents, including travelers, do not see city borders and expect continuity of services. At the same time, a successful strategy is one that addresses and reflects the needs and vision of the local community including being customer-centric, focusing on enhancing the quality of life and providing a competitive advantage for businesses attracting positive growth.

A starting point for regional alignment may be through **regional economic development strategies** that apply across the region. A local city developing their Smart City Strategy can develop more specific strategies for economic development; a niche area that aligns with the expertise and strengths of that community.



4. STRATEGY MOMENTUM AND FOUNDATIONAL INITIATIVES

A good strategy should identify “**early win**” initiatives that create momentum. It should include foundational initiatives with clear implementation time scales. Some popular examples from previous work include the building out of a dark/lit fiber optic network or development of a corporate open data and security policy, along with the inventory and development of internal cross-department data standards.

Another approach to “early win” is to build off of what has already been done. Cities generally have lots of innovation happening already but this is often not communicated, shared or celebrated. Developing communication and marketing around what is already being done creates awareness, a sense of pride, and a foundation to build upon for the future.



5. CLARITY

Although information and communication technology is fast becoming a basic city infrastructure, a Smart City Strategy can be different from other basic infrastructure strategies because the initiatives and benefits may not be as clear as a “ribbon cutting” for a new bridge, building or road. As a result, it is important for the strategy to include examples and outcomes that can be easily understood by residents and businesses.

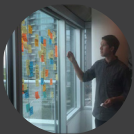
Public messaging and **branding** of a Smart City Strategy is key to support the focusing of initiatives, and to remind staff and the public of the key reasons for undertaking projects. Benefits and outcomes drive understanding and buy-in.



6. “DUST-PROOFING” THE STRATEGY

A Smart City Strategy must strike a balance of providing appropriate levels of detail to move the strategy forward, but also being high-level enough to provide a **framework** that remains relevant over time. Some cities are treating their Smart City Strategy as a living document with higher-level policies and frameworks that have supporting initiatives and projects that evolve over time.

Strategies tend to identify many initiatives and projects with longer time horizons for delivery. Some are more foundational than others. With the pace of technology change, many short-term projects that support initiatives can look different by the time they are complete. Spending too much time on technical detail in the strategy will only make it feel outdated in a short timeframe.



7. LESSONS LEARNED

The development of a Smart City Strategy is a relatively new idea, which has taken a number of differing forms and approaches. While each Smart City Strategy will need to reflect its own goals, as well as its position within the region, it’s also important to spend some time **learning from what has been done** and what has worked (or not) for other cities.

Another technique is to become actively involved in organizations that share knowledge, provide guidance and connect people to lessons learned from other regions. Regional organizations such as the Alberta Smart Cities Alliance, Toronto Board of Trade, Future Cities Catapult and Smart Cities Council, to name a few, all offer opportunities to learn and share knowledge.



8. URBAN INTEGRATION

Integration of technology within the public realm is an emerging trend in most cities globally. Including an **urban planning** component within the Smart City Strategy is critical to improving the quality of life for citizens.

We have all seen the evidence of technology being quickly deployed in our communities with little thought to the impact on customer service, or the resident experience. These are often technologies that were not planned for or were not coordinated with other departments. For some of the more technically-oriented people this may look “cool”, for others it can portray an image of disorder in the community.

Consideration should be given to implementation guidelines as part of the strategy development. One approach is to develop the Smart City Strategy as an integrated effort within the urban master plan process. This approach ensures that the conversation around technology and the built environment is happening at the highest level.

The best technology deployments are those that provide benefits to the community, are not visually intrusive in the public realm, and are implemented with a long-term vision.



9. PERFORMANCE INDICATORS

Attributing success factors to the development and execution of a Smart City Strategy can be challenging and often qualitative in nature. While many of the specific initiatives will be quantifiable, the expected results may be less measurable, particularly if there is limited current information to measure against. There are a number of different **Key Performance Indicators** (KPIs) that have and are being developed by different organizations including ISO and ITU through the UN. Determining the KPIs that are relevant to the individual city is an important discussion point as these become the reporting mechanism over time for both internal operations as well as the outward message to the residential and business community.

The key consideration is to develop KPIs that are meaningful to citizens and to those who are considering to live or do business in the community. Tracking and reporting these in an easily understood format, often through dashboards, is an important element of a Smart City.



10. CREATING A LASTING SMART CITY CULTURE

One of the reasons that many cities invest time in developing a Smart City Strategy is to optimize and integrate the implementation of information and communications technology within the organization. The process of developing the strategies is often the starting point for removal of barriers and silos that might exist. Open data policy development is also often the initiator of this discussion.

The **involvement of all relevant stakeholders** within the organization is key to creating a culture of buy-in that goes beyond the creation of the Smart City Strategy. Ongoing coordination and sharing of challenges and successes (starting with the early wins) as part of the Smart City governance is key to long-term success.

While large cities have a potentially larger tangible benefit from Smart Cities initiatives, we have found that small- to medium-sized cities that are very agile are also in a strong position to create momentum and sustain an ongoing culture of innovation.



Conclusion

While developing a strategy may seem like a large undertaking, our experience is that with the establishment of the right team that is focused on realizing results for the citizens, the process can bring significant benefits to any community.

In order to drive the maximum benefit for your community, get started, take a chance, be innovative, engage with the people, and be agile.





IBI Group is a globally-integrated, technology-driven design firm that has been at the forefront of designing livable and sustainable urban environments for over 40 years. With more than 2,500 professionals around the world working in the areas of technology, systems, engineering, transportation, planning and architecture, the firm has a uniquely holistic perspective on what contributes to a successful Smart City.



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