

Smart Regions: Paving the Way for Successful Digitalization Strategies beyond Smart Cities.

Five Leaders of Smart Region Work Share Their Insights

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Cities have been the focal point for innovation and digitalization strategies for over a decade. From broadband deployment strategies, smart city pilots, projects and programs, to intelligent urban mobility schemes or open data initiatives: cities have led the way. Innovation agendas cannot and must not stop at city limits however. Smart regional approaches represent the best recipe for digital inclusion, the scaling of relevant innovations and a *New Digital Deal* for all. Five points as to why we must and should consider smart region strategies for our communities.

1 – Digital Inclusion

Many cities around the world benefit from innovation and digitization strategies. ‘Smart Cities’ initiatives provide the catalyst for urban communities to become more resilient and sustainable, affording economic efficiencies, environmental innovations, enhanced public security, smarter mobility, fresh economic activity and 21st century jobs. Cities carry the brunt of modern day challenges (ie traffic congestion, air quality) but they also serve as a natural cradle to talent, jobs and innovations. Modern cities are at the very center of ‘Geographies of Innovation’. Imperative to a successful wholesale “smart strategy for all” is to take innovations beyond the city centers, however, facilitating larger regions, catering the digital enhancement of our communities, large or small. To not do so implies condoning a serious digital divide, with urban centers affording the riches of digital innovations, and non-urban communities falsely remaining under the impression that they are online. With modern jobs emerging in city centers and non-urban communities hosting jobs of the 20th century only. Smart city strategies can only become successful if they prove sufficiently inclusive. Smart region strategies pave the way for such digital inclusion. By seeing smaller and larger communities collaborate, procure, set innovation agendas, sharing know how, creating economies of scale, and aggregating demand, digital inclusion can be addressed effectively, with smaller communities benefiting from the same digital innovations large cities can typically already enjoy. As we collectively enter a next chapter of digital evolution, we must leave no person behind. Smart region strategies help us achieve that goal.

2 – Power of Collaboration

Cities are better positioned to deal with digitalization than their smaller peers. They have more resources and know-how to articulate and implement smart strategies. In some jurisdictions – such as at state level in the United States -- regional authorities can leverage an expanded set of resources and instruments on which municipalities, large and small, may depend. Smart region strategies facilitate the collaboration of larger cities, smaller municipalities and regional authorities, allowing for a comprehensive sharing of know-how and resources. For instance, collaboration on a regional

level ensures smaller communities can tap into a larger body of know-how relevant to digitalization that typically involve technology architectures, data management, cyber security and regulations. Regional collaboration also allows for economies of scale by establishing joint procurement schemes or, at a minimum, coordinate individual procurement procedures. Regional collaboration in procurement also allows for an effective avoidance of pitfalls, such as unwantedly getting tied to proprietary solutions, or losing data ownership for instance. Collaboration on a regional level ensures smaller communities can tap into a larger body of know-how relevant to digitalization that typically involve technology architectures, data management, cyber security and regulations among others.

3 – Effective public private collaboration

Smart community strategies succeed by means of effective public private collaboration. Effective public private collaboration does not equal the traditional public private partnership which may typically represent an ineffective approach when managing dynamic innovation agendas. Effective public private collaboration, however, entails each side does what it does best, holding each other accountable for doing exactly that. Such collaboration is difficult to materialize when the endeavor is too small and efforts are geographically fragmented. Regional collaboration allows not only for a larger economies of scale, it also helps to stipulate more clearly what is expected from each other. For example, 20 municipalities collaborating on a shared definition of what constitutes 'interoperability' or 'open data' is likely to ensure a higher degree of compliance and adherence of private sector suppliers to such definitions. Further, a regional scope enhances the interest of private sector to invest, as the investments (whether in cash, know how or staffing) can be understood to result in a larger, regional RoI. Five examples:

- In the Greater Phoenix region, the Institute of Digital Progress (iDP) has coordinated the collaboration of multiple municipalities & authorities, as well as private sector partners – including Uber, Intel and Cisco, further supported by the Arizona State University - to address mobility and traffic congestions collectively - winning a multi-million dollar Advanced Transportation And Congestion Management Technologies Deployment (ATCMTD) grant in the process.
- In Italy, the Province of Brescia has managed to group 28 small municipalities in a single PPP initiative aimed at driving energy efficiencies, resulting in a 'smart light' transition on 23000 light poles carrying an economic value of around 45 million euros. The savings generated are being reinvested in an expansion of the light transition to encompass full coverage in the 28 territories, with the public IoT digital infrastructure given in concession to a private operator.
- Kansas City, Missouri, can pride itself on having forged a public private partnership that has resulted in the development of the 54 most connected blocks in North America. Kansas City gets great service for its citizens while obtaining data analytics capabilities that allow the city to augment its operations. The services are being scaled regionally.
- In Denmark, Gate21 leads the way in facilitating the collaboration of municipalities and private sector counterparts in the capital region of Copenhagen as they embrace digitalization and innovation strategies, effectively proceeding with their energy transition to become carbon neutral by the year 2025.
- In Belgium, the "Smart Flanders" program supports 13 central cities in the Flanders region in their development into smart cities, including the port city of Antwerp. Smart Flanders does this by focusing on real-time open data and shared reference models and aims to stimulate cooperation between cities and actors from the quadruple helix. Leveraging its "learning by

doing" approach, Smart Flanders focuses on making data as accessible as possible, with a view to maximum reuse as a basis for smarter services and applications.

4 - Digital does not stop at City Limits

Data does not have a natural habit of hitting the breaks when it reaches geographical city limits. Digital innovations can be held back from extending beyond city limits, however, confined by the ways they have been managed, procured or deployed. But many digital innovations only make sense when scaled well beyond city limits. For instance, preparing our joint futures for smart mobility and automated vehicles requires the joint creation of standards, joint regulations and joint experimentation. New road to vehicle communications will only mature if they are facilitated to scale. And only if they scale can they evolve to become standards. And without standards we are unlikely to achieve automated mobility at reasonable scale. In short, Smart Cities are rendered immobile, if mobility isn't addressed on a regional level. To a large extent the same applies to smart energy grids: the level of success and impact get directly determined by scale, interoperability, effective ecosystems of partners collaborating and an effective framework of rules and regulations. Cities are challenged to meet such criteria by acting alone. Public security is better served by data analytics getting organized across jurisdictions, across the silos of judiciary organizations. And water management – whether to address drought or the exact opposite – can only be achieved reasonably well by taking on a smart region approach. In this lies an interesting paradox. Smart Region Strategies do not simply enable a collective of smaller communities. They enable larger communities as well. Without placing Smart City endeavors in a geographically larger, regional context, many Smart City initiatives end up severely limited in impact and relevance to the point they get rendered not-so-smart. In short, Smart Region Strategies empower Smart Cities.

5 – Smart Region as a Service

Smart City initiatives of the recent past have relied heavily on big hardware deployments enabled by sizable capex investments. Many smaller communities found themselves insufficiently equipped to deal with such endeavors, lacking know-how, rudimentary infrastructures and cash to take similar innovations to their own constituents. Digitization strategies of a more evolved kind, however, are data and cloud driven. While rudimentary broadband infrastructure remain a prerequisite, ever more 'smart city' services can be provided and procured *as-a-service*. For example, smart parking and even outdoor light can now be brought to you as a service, while the insights delivered through data analytics on top of such services can come as an intelligent service also. This trend vastly enhances the ability to plan, procure, deploy and leverage smart city solutions seamlessly and securely, without the capex investment extravaganzas of the past. Technology know-how becomes less of a cornerstone requirement as part of procurement procedures, while a deep understanding and well-articulated set of expectations of service levels and key performance indicators will determine success at large. This lowers the threshold for smaller communities to enter the 'smart' arena, with regional collaboration serving as a key enabler for collective action.

This blog has been produced by leaders responsible for smart region strategies across jurisdictions, countries, continents even. From Arizona, USA, to Flanders in Belgium, from Kansas City, Missouri, to Brescia in Italy, as well as the capitol region of Copenhagen: our voices have converged in the above.

We individually work to further our own regional strategies of course, but we collaborate to advance the relevance and value of the smart region approach, hopefully to be embraced by many. Any *New Digital Deal* of future relevance is likely to have a regional framing – so join us in our efforts.

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