Smart Cities & Regions within the Framework of Greek Research & Innovation Strategy for Smart Specialization – RIS3

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SUMMARY

Smart Cities consist of Information & Communication (ICT) infrastructures and services, deployed over city-wide shared fiber and wireless communications. These commons facilities are extending and empowering legacy municipal networks, (e.g. sewage, water, lighting, waste management) that traditionally local governments used to operate within their region. Leveraging on the unprecedented ICT advances, Smart Cities enable a plethora of user oriented services that cater to emerging requirements in cost effective ways, usually via Private-Public-Partnership (PPP) arrangements. Novel e-applications, appropriately planned, can stir regional economic development at a reasonable cost and generate considerable profits via smart management of accountable public services to citizens and visitors, while strengthening community bonds and linking people with a region culture and history. Furthermore, they can be key enablers for early warning and mitigation of natural disasters, e.g. in cases of fires, floods, tsunamis and earthquakes, as planned by authorities in Japan, Canada and the USA in conjunction with communication network operators.

Smart Cities built upon vast sensor networks that interwork with fiber back-end links in order to provide virtualized access to shared data centers and shared applications. They ultimately leverage on the Internet-of-Things (IoT) deluge, pushing prices down and lifting their usage, range and penetration.

Smart Cities and Regions are demonstrably boosting employment opportunities within new-economy public and private sectors. Thus, they have been instrumental in supporting community anchors and innovation poles as witnessed by worldwide success stories of regional development. Indicatively, they are spearheading telecom providers to expand their services towards ubiquitous 5G networks, vendors to deploy virtualized multi-tenant platforms, high-tech SMEs to develop value-adding innovative solutions and researchers in Universities and Research Centers to seamlessly share efforts and test novel ideas on real distributed testbeds.

Smart Cities are prime manifestations of Research & Innovation Strategy for Smart Specialization (RIS3) as they heavily rely on proven diverse skills and strengths of local economies. Thus, Academic Research and Innovation groups within a region, in concertation with innovative private sector entities, can be instrumental in assisting local Governments to plan, deploy and monitor advanced Smart City projects. This was demonstrated in successful European joint undertakings that leveraged on existing talents within a regional ecosystem.