

## **Smart City, Issues and Experiences**

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During these last decades the world experienced a galloping urbanization, more than 50% of the world population live in the cities. Indeed, the migration of rural populations to cities has accelerated in search of jobs and a better quality of life. The rapid growth of cities, often unplanned and therefore uncontrolled, has a negative impact on the environment : increasing global CO2 emissions, energy needs, transport times, security problems, waste collection and therefore high management costs of the city. These observations also concern African cities, which have been experiencing even more rapid growth!

The international community is addressing these issues, but often in a compartmentalized way according to the various specialties into play, whereas it is necessary to proceed according to a vision and / or an integrated approach. The smart city is recognized as a promising way to provide solutions to these issues provided it is adapted to local priorities and constraints..

The International Telecommunication Union (ITU) defines a smart and sustainable city as an innovative city that uses Information and Communication Technologies (ICT) and other means to improve the quality of life, the efficiency of urban operations and services, the city competitiveness, while ensuring that it meets the needs of present and future generations in economic, social and environmental terms.

Furthermore the problem of growth of cities and its implications did not escape the United Nations which inserted it in the agenda 2030. They insist on the sustainable urbanization, the access of all to safe transport systems, on reducing the negative environmental impact on citizens by paying particular attention to air quality and waste management. The 2030 Agenda also addresses issues related to water sanitation by aiming by 2030 an access for all to adequate sanitation and hygiene services.

This presentation will introduce in a first part, the concept of Smart City, the components that characterize it as well as the underlying ICT technologies. The importance of collecting relevant data while insuring security and privacy will also be highlighted. To illustrate our remarks, some projects / experiences of smart cities in the world (Barcelona, India ....) will be presented.

The second part will focus on Africa and review some achievements and projects. Attention will be focused on the Tunisian experience and the efforts made by some municipalities in the use of ICT. In addition, smart cities projects in Tunisia as well as in other African cities will also be reviewed. In conclusion lessons learned and research issues will be highlighted.