

Some Considerations for Smart Cities/Smart Communities

20th June 2023

7th Meeting (virtual) of U4SSC, ITU, Geneva

Vinod KUMAR

Acknowledgement: Contributions from Nigel Jefferies, Sudhir Dixit and Vino Vinodrai

About WWRF

The Wireless World Research Forum is the place where the global wireless research community meets to explore and develop the research challenges that confront us as we look beyond current 5G deployments

**A world leading
Forum creating a
smart future**

Founded in 2001

Based in Switzerland

Independent and owned by its members
Promoting visions of the wireless future

WEBSITE:

www.wwrf.ch

Smart Cities – A Rich Eco-System

- Harnessed Technologies
 - Sensors and IoT
 - Telecom Connectivity
 - Software and Optimisation Tools
 - Cloud Computing
 - Data Sciences
- Impacted PoPs – Numbers and Categories
 - Mega Metros in developed and developing world
 - From Smart Urban and Suburban localities to Villages & Smart Communities
- Extensive Research Under Way
 - In technology, sociology, energy management, environmental sciences and pollution control

- Optimised use of natural resources for improved quality of life through improved energy efficiency, improved water management, eHealth and eGovernment through digitization, eMobility and Urban pollution control

Top-down Solutions

- Designed by multi-nationals in public works, IT & connectivity vendors and big consultancy companies

Bottom-Up Solutions

- Designed by start-ups in collaboration with local governments for solving well identified problems in most cost-effective manner

WWRF Conclusions and Recommendations

1. Extend concept to include communities living across wider areas than just cities
2. Internet-enabled, future-proofed and scalable solutions
3. Security and privacy concerns considered from the start.
4. Consider timeliness and adequacy of solutions, and RoI for all key players
5. ITU should collect experience and establish 'best practice'
6. Efficient, effective, affordable, sustainable mobile/wireless networks to support smart sustainable cities cannot be underestimated.
7. Scalable control and management systems to use data that is collected and analyzed for intelligence and follow up
8. Solutions should automate dynamic resource allocation, monitoring, scaling and redistribution of public resources, such as energy and water.

WWRF is setting up new Working Group on “Smart Cities and Communities” and hopes to make further contributions to U4SSC