“Digital solutions for integrated city management and use cases” & “Compendium of survey results on integrated digital solutions”

Presented by:
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Objectives. Working Groups. Experts.

This Thematic Group highlights from a city perspective: current best city practices, unresolved challenges and requirements that must be tackled via integrated city management, as well as a new version of the agile response architecture made up of advanced technologies, and the outlook for deployment in different environments.

This thematic group comprises five working groups:

WG1: Digital Solutions for integrated city management & use cases.

WG2: Smart public health emergency management and ICT implementations.

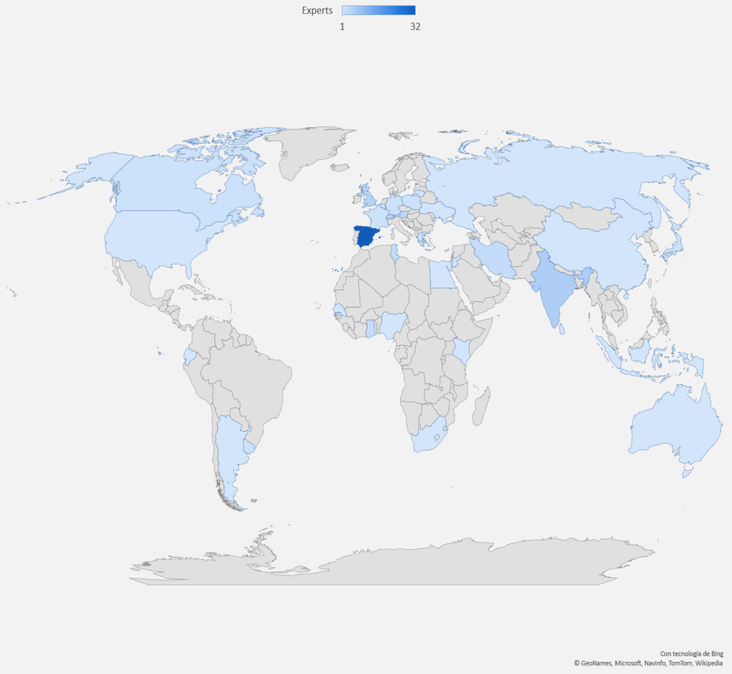
WG3: New architecture for sustainable, digital development.

WG4: Smart Tourism: a path to more secure and resilient destinations

WG5: Reference framework for an integrated management of a smart sustainable city

103 submissions

- 36 Countries
- 103 Experts selected
- 26 PhDs
- Backgrounds:
  - Researchers (10)
  - Technical experts (12)
  - Professionals (26)
  - Regulations/Standards (19)
  - Smart Cities (23)



Compendium of survey results on integrated digital solutions

Use Cases

Illustrated by success stories, this document presents the **experience of cities**, communities and municipalities participating in the U4SSC initiative in developing their smart city **strategies**, the **governance** of smart projects, and the principal **role of a smart city platform** (or set of key components that constitute it) in contributing **to improving the lives** of their citizens.

Responses from 10 cities to the questionnaire on: city profile, strategic approach, Technological architecture of urban platform, operational IT solutions for integrated city management, governance, economic sustainability, key factors and barriers to implementation, stakeholder's involvement.

Digital Solutions for Integrated City Management & Use Cases

Main report

This report provides a global perspective on how **city platforms** facilitate more efficient and effective **control of public infrastructure and services**, improve economic efficiencies, enable rapid **development of new or complex services** and play a critical role in the overall **digital transformation** of urban areas.

Digital Solutions for Integrated City Management & Use Cases

Working Group – Deliverable Structure

Miscellaneous

- Foreword
- Acknowledgements
- Disclaimer
- Executive Summary

1. Smart city concept

- Smart City Typology: Infra, Operation, Ecosystem, governance
- SDG and Standards

2. Common smart city technology challenges

- Describing main challenges in SCP implementation.

3. The need for a SCP

- Technological Architecture
- Enabling Solutions

4. The experience of cities

- 22 cities
- Europe
- Asia & Pacific, Middle East & Africa
- Americas

5. Key takeaways and conclusions

- Geographic distribution
- Governance
- Economic Sustainability
- Common barriers
- Key success factors

6. References

- Bibliography used in this report

Annex 1: Compendium - Use Cases -

Digital Solutions for Integrated City Management & Use Cases

3. The need for Smart City Platforms

A smart city platform (CP) is the answer to the need for an integrated city management.

The following aspects are required of a CP:

- Interoperability, Performance, Scalability, Robustness and resilience, Security, Extensibility.

City platforms are mainly **based on international and national standards** (ITU-T Y.4201, ISO/IEC 24039, UNE 178104: 2017, DIN 91357-2017, FIWARE…). These standards have an **architecture based on layers**:

- Acquisition and Integration of data from information systems and IoT devices
- Data repository and information management
- Information processing and data analysis
- Interoperability and integration buses with external systems
- Vertical services
- Security management and support layer

City platform **serves as a technological base for a multitude of enabling elements** of the city's digital transformation.

- Citizenship and situational awareness dashboards of municipal managers, GeoPortal, City Apps, Open Data Portals…

Digital Solutions for Integrated City Management & Use Cases

5. Key takeaways and conclusions

Cooperation	Cooperation and collaboration between the **public-private domains** will be essential as cities continue to evolve into increasingly complex systems.
Data	Data is more **valuable** than ever before, and cities need to explore options to monetise it and can be a new revenue source for local governments that would help them to become self-sustainable and maintain smart infrastructure.
Resources	The sharing of resources, expertise, use cases and **lessons learned** within a country or region can benefit other cities in the vicinity.
Silos	Smart City initiatives usually are managed in the local government by **vertically structured departments**. These departments usually work in vertical city silos.
Multidisciplinary	Smart city projects are generally made up of a multidisciplinary team and involve different areas. Unified governance around the city data platform become an **opportunity** to drive the digital transformation of municipal services.

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Thank you!