

## SMART SPACES: WHAT, HOW, WHO AND WHY?

An emerging paradigm supporting digital governance enabled by location data and intelligence

## WHAT IS A "SMART SPACE"?

The widespread adoption of digital technologies, including sensors, 5G networks, and cloud computing, is significantly transforming the way we live and interact, reshaping not only our cities but also our everyday environments.

"Smart spaces are a combination of physical and digital environments in which people and technology interact in dynamic, inter-connected and intelligent ecosystems".



significant public value to individuals and communities by:

Fostering co-design Encouraging collaboration of citizens and policymakers

**Delivering new services** Innovating to meet

community needs. Informing decisions:



Increasing efficiency: Streamlining public administration



SMART VILLAGES

## **HOW DO SMART SPACES WORK?**

Smart spaces are built on robust digital infrastructure and cutting-edge technologies.

They require a comprehensive pool of **integrated data** from diverse sources to establish a strong foundation of knowledge.





Integration & interoperability **Formalised** knowledge graphs

the European Union this integrated pool of data is part of the Common European Data Space, which allows public and private value creation by promoting the free flow of data under safe, private, **trustworthy** and ethical conditions.

#### THE KEY ROLE OF LOCATION INTELLIGENCE

questions, such as:



Most data exchanged in Smart spaces involves location data, essential for advanced, context-aware analytics.

**Location intelligence** can help answer critical

Advanced **Analytics** 

WHERE?

did something might it occur?

WHY? did it happen there, and what factors

contributed?

HOW?

should actions be taken to address the situation?

## WHO IS ACTING IN A SMART SPACE?

Smart spaces enable various people and organisations to seamlessly interact with one another, their environment, and a wide range of digital devices.

These participants can include citizens, businesses, and public administrations.

In the context of the European Data Act and the Data Governance Act, actors can take on roles such as:



Data holder



recipient



intermediary

# Public Administrations

### WHY IS IT RELEVANT TO FOSTER **MATURE SMART SPACES?**

Fostering intelligent Smart spaces can unlock significant benefits: such as economic growth, enhanced public services, and stronger community connections. They offer a key opportunity to improve digital governanged deliver value at every level

Fair and sustainable adoption across the European Union is essential for creating a more connected and efficient Europe, with cross-border interoperability playing a crucial role,

To realise their full potential, a shift from isolated systems to intelligent ecosystems is necessary, enabling smart spaces to maximise benefits.



**Isolated** 

Systems



systems





systems



Intelligent ecosystems

#### Values delivered by Smart spaces





**Economic** Through growth and prosperity

In engagement and user satisfaction





**Administrative** Through efficiency and effectiveness

**Democratic** By fostering integrity and public trust

## WHAT IS REQUIRED TO FOSTER **MATURE SMART SPACES?**

Policymakers and researchers could ffoster intelligent ecosystems or Smart spaces through several actions:



#### **FUTURE POLICY ACTIONS Champion data Promote**

sharing: Expand access

to location data

Support partnerships: Foster shared data platforms and marketplaces

#### interoperability: Use open standards and foster

open-source development

## Encourage collaboration:

Facilitate cooperation among cities, regions, and businesses

## **FUTURE RESEARCH NEEDS**

#### requirements: Define needs for

Identify

solutions

tools:

**Create assessment** 

Evaluate bias and

exclusion risks

through collaboration

Explore co-design:

Enhance public value



the metaverse





and explore innovations in public governance

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