

UNIVERSITÀ

DEGLI STUDI

DI PADOVA

IMPETUS - Intelligent Management of Processes, Ethics and Technology for Urban Safety

An interconnected city grid of sensors, such as of cameras or environmental sensors, offers a wealth of actionable Big Data. In addition to better managing traffic and public transit, as well as controlling pollution, they can be used for enhanced policing, crowd control, and even public sentiment monitoring. However, such smart systems increase the risk of unethical use of personal data, and increase the attack surface of a city as multiple interconnected IT systems control key infrastructures such as transport, energy, water distribution, etc.

To address the growing security and ethical threats on smart cities, the project will develop an integrated toolkit that covers the complete physical and cybersecurity value chain (detection, simulation & analysis, intervention).

The project will enhance the resilience of cities in the face of security events in public spaces, by addressing three main aspects of urban security in smart cities:

• Technologies: integrating and developing the tools and processes underlying the capacity of cities to manage both physical security and cyber security, leveraging the power of IoT, Artificial Intelligence and Big Data analysis

• Ethics: ensuring smart city capabilities are developed for the benefit of society, balancing potentially conflicting needs to collect, transform and share large amounts of data with the protection of data privacy

• Processes: delivering a multi-tenant solution fully aligned with the operational needs of multiple city stakeholders (e.g. police, first responders, municipalities) supported by a framework gathering deployment guidelines and best practices

The consortium includes 17 partners from 11 different EU Member States and Associated Countries, including 2 local government authorities (City of Padova and City of Oslo) that will lead the field trial implementations. The project will also be supported by a Community of Safe and Secure Cities (COSSEC) gathering other cities to provide feedback.

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