



Horizon 2020 Project

IMPETUS

Intelligent Management of Processes, Ethics and Technology for Urban Safety

The IMPETUS consortium is proud to announce that, after a highly competitive selection process, we have signed a contract with the European Commission to carry out an innovative project to enhance the resilience of smart cities in the face of security threats in public spaces.

With the Covid-19 pandemic currently filling headlines around the world, it is perhaps easy to forget other threats to our well-being. But they have not gone away. One such is terrorism, which continues to be a major threat to security in EU Member States. We have witnessed horrific attacks across the EU in recent years, and – sadly – have every reason to believe that they may continue.

IMPETUS will provide city authorities with new means to address security issues in public spaces, and so help protect citizens. Using data gathered from multiple sources, it will facilitate detection of threats and help human operators dealing with threats to make better informed decisions. The IMPETUS approach addresses three complementary but overlapping areas:

- **Technology:** Leverage the power of Internet of Things (IoT), Artificial Intelligence (AI) and Big Data analysis to provide powerful tools to manage physical and cyber security in cities.
- **Ethics:** Balance potentially conflicting needs to collect, transform and share large amounts of data with the imperative of ensuring protection of data privacy – all in the context of ensuring benefits to society.
- **Processes:** Define cognitive processes and deployment guidelines supporting decision making and coordination, fully aligned with the needs of multiple city stakeholders involved in security operations.



IMPETUS will detect potential threats by using AI techniques to search social media and the deep/dark web for unusual and suspicious activities, and to analyse available smart city data. Threats will be classified and assessed to determine an appropriate response using a human-in-the-loop approach to combine the strengths of AI and human judgement.

The project will build on tested technologies but enhance and combine them in a coherent and user-centred solution that goes beyond state-of-the-art in key areas such as detection, simulation & analysis and intervention.

The consortium consists of 17 partners from 11 different EU Member States and Associated Countries. It brings together 5 research institutions, 7 specialist industrial and SME companies, 3 NGOs and 2 local government authorities. The consortium will be complemented by *COSSEC* (Community of Safe and Secure Cities) – a group that the

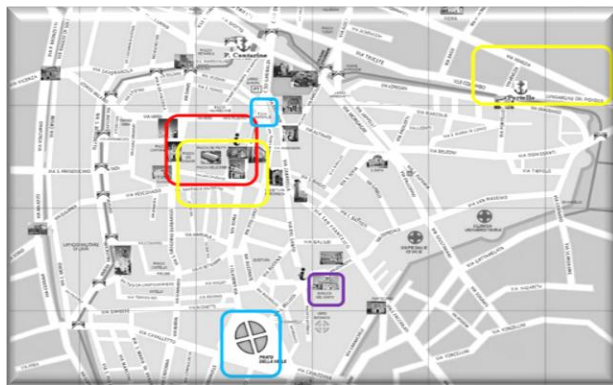
project will establish and foster. COSSEC will be made up of end-users and other stakeholders able to provide feedback on IMPETUS solutions as they are being developed, and to promote the IMPETUS approach more widely.

Major on-street trials will be held in the cities of Oslo, Norway and Padova, Italy.

OSLO: Major parade on Norway's national day, 17th May. Events gathering large crowds such as this one can be prime targets for terrorist attacks.



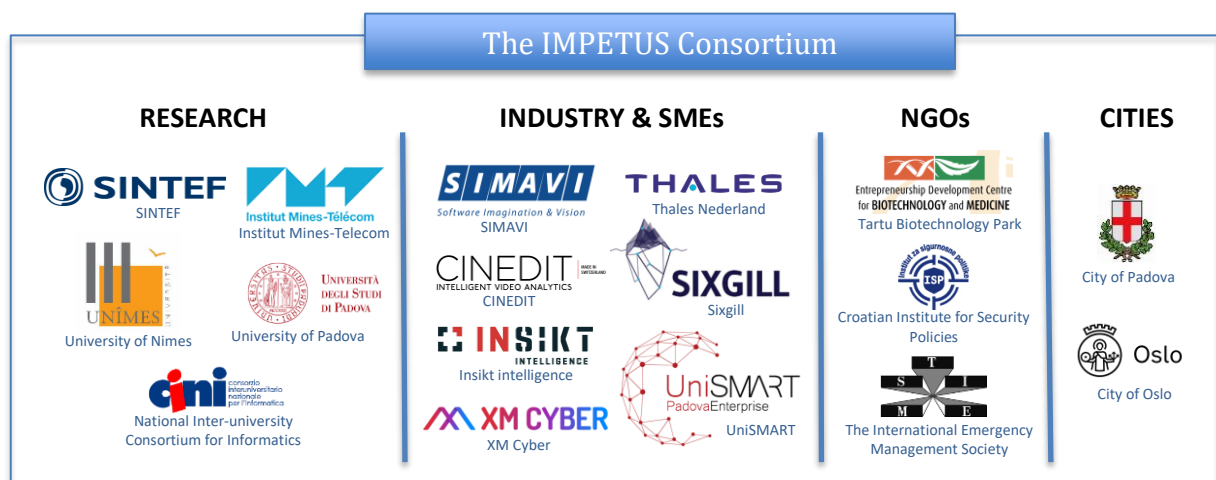
PADOVA: A scenario to be tested will be the 13th June procession celebrating the Solemnity of Saint Antonio of Padua. The map identifies some soft targets (market, concert arena...).



The project will receive financial support of 8 M€ from the Horizon 2020 programme for research and innovation of the European Commission. The project starts in September 2020 and will last for two years.

If you want to know more about IMPETUS please contact:

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This project receives funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 883286.