BE S²ECURE
Built Environment Safer in Slow and Emergency Conditions through behavioUral assessed/designed Resilient solutions
Grant number: 2017LR75XK

WP 2 – BE and SLOD: SoA, Risks and human behavior

T2.1 – SoA-based definition and characterization of BE as network of buildings, infrastructures, connecting space in reference to SLOD occurrence and users' typologies

D2.1.2 – Characterization of significant SLOD-affected BE

ABSTRACT. The air pollution and the heat wave represent the main **SLODs** that affect medium and large cities. Their **combination is very common during the summer** season. Heat and sunshine are two 'ingredients' that can intensify ground-level pollution by mixing with nitrous oxide gases (from sources like car exhausts) to create ozone, a pollutant.

Thus, the aim of this report is to identify, starting from the findings of the Deliverable D2.1.1, a representative portion of the Built Environment (BE) area from the City of Milan in which the air pollution and heat wave typically arises over the year due to multiple factors.

Macro-scale criteria were used to identify areas under a larger SLOD risk, starting from a rather large scale to narrow it down into a single neighborhood-size area. In this analysis, the **exposure and vulnerability of the inherent population was considered** as well. Moreover, the broad **built environment characteristics were mapped** and confronted to establish the criticality of the area.

The selected area is composed by different BE archetypes (urban canyon and piazzale) which interconnected institute a complex system prone to produce intensified adverse effects on the population through the exposure to the mentioned SLODs. The report represents a description of the selected area (in future analyzed by means of measurements and simulation tools) to observe and verify the criticality of the selected space, and that this area in particular serves the propose of the project; that is, enabling the study on how the structure of the BE can affect negatively or positively the environment experience regarding the SLODs.