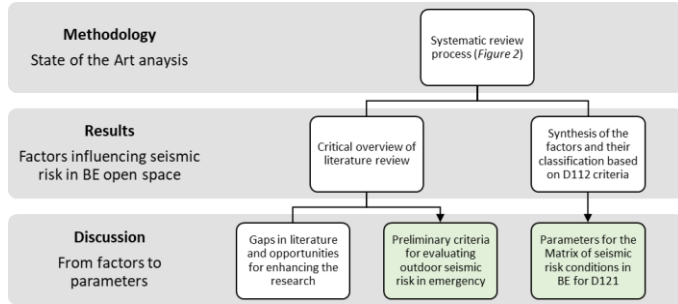


WP 1 – BE and SUOD: State of the Art (SoA), risks and human behaviour

T1.2 - SoA of earthquake (SUOD) impact on BE and related earthquake-induced modifications due to building/aggregate and aggregate/public spaces interfering conditions. Current risk-reduction strategies analysis. Definition of human behavior including crowding conditions by combining SoA data and real-world events analysis

D1.2.3 – FACTORS INFLUENCING OUTDOOR BE SEISMIC RISK AND ITS MODIFICATION



Risk factors	Disaster type	BE Open space	Data characterization		
			Geometry and space charact.	Constructive charact.	Use over time and space
risk	earthquake	open space	morphology	constr. technique	pedestrian
vulnerability	seismic	public space	typology	pavement	vehicular
		urban area	geometry	obstacle	evacuation users
		road	slope		
		square	underg. cav.		
		park			
		access			

Open spaces in the urban Built Environment (BE) are key places in risk management of Sudden Onset Disasters (SUOD) and their vulnerability is strictly related to the BE characteristics (extrinsic or intrinsic). In literature, several studies identify specific aspects of risk in the BE open spaces, but there is a lack of synthetic or comparative studies in this field.

The present report aims to support the definition of tools for a qualitative risk assessment of open spaces in BE, through the literature-based identification of specific risk factors influencing outdoor seismic risk, focusing only on intrinsic aspects. Accomplishing a systematic and bibliographic review of the literature – indexed (in Scopus databases) and no-indexed – the results confirm the five macro-areas for classification of BE, introduced in D1.1.1 and D1.1.2, and identify specific factors involved in the seismic risk of open spaces in BE.

Moreover, the systematization of the whole parameters allows providing preliminary criteria for evaluating outdoor seismic risk in emergency conditions and to find any relevant literature gaps where enhancing future research.

This study is a necessary step towards the characterization of open space in BE and its modelling in digital environments. The parameters defined in the present report will be summarized in the matrix of seismic risk conditions in BE, as discussed by D1.2.1.

