



**CLAYONRISK: Bricks manufacturing technologies to increase built heritage resilience and to raise common identities of peoples**

The CLAYONRISK project mainly aims to foster bricks manufacture processes in order to mitigate the negative impact of extreme weather events and earthquakes on historical structures. As a traditional building material widely used from ancient times and worldwide, both eco-innovative solutions and socio-cultural values of peoples will be tackled. For first time, the manufacturing of building bricks is addressed as a preventive measure for Disaster Risk Reduction management. Starting from: i) bricks decay due to climate change make ancient structures much more vulnerable to seismic risk, and ii) the negative impact of disasters on historical structures could be mitigated by improving the physical properties of bricks, directly influenced by the manufacturing parameters, a multidisciplinary and comparative study of bricks -both ancient and currently produced- is accomplished. Archaeometric methodologies by means of multianalytical approach is followed and building bricks resistance over time is assessed considering their mechanical behavior after ageing tests performance. Northern Italy entails an outstanding site to accomplish the project, as it is a high humidity area with regular seismic activity where the geology has enhanced an exceptional architecture shaped by bricks and a ceramic industry leadership. With a cutting-edge scope, CLAYONRISK will state bricks resistance over time and the achievement of technological improvements and sustainable solutions towards the strengthening of heritage (and new) constructions, ensuring peoples traditions and the socio-cultural values of ancient structures. The intersectorial transfer of knowledge fostered by CLAYONRISK will promote a protocol development, launched by the academy-industry cooperation and where bricks entail a transnational understanding resource to aware the European cultural identity. The project entails a broad range of opportunities for the candidate and will enlarge her research prospects in the future.

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**Other Participants:**

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**Find out more:** <https://cordis.europa.eu/project/rcn/221695/factsheet/en>