## MULTIFUNCTIONAL SYSTEM FOR BOTH SEISMIC STRENGHTNING AND ENERGY EFFICIENCY OF CLADDING

**Innovations and Benefits** - The system has been patented by ENEA (N°102016000116158). It complies with the Italian rule requirements related to the needs for the cladding strengthening, in order to avoid their overturning when seismic events occur. The system consists in setting up components made of natural fibers with several functions: to improve the cladding seismic resistance, to ensure comfortable indoor climatic conditions, to guarantee the energy efficiency and to be sustainable.

**Use** - Structural strengthening and energy efficiency of cladding and masonry walls in both new and existent buildings. Making safe of claddings and masonry walls in the emergency post-earthquake phases

**Applications and ongoing Activities -** Carried out activities: Numerical simulations and preliminary laboratory tests. Ongoing activities: Experimental tests on full scale prototypes.





	RESEARCH TO PROVE FEASIBILITY			TECHNOLOGY DEMONSTRATION			SYSTEM TEST, LAUNCH & OPERATIONS	
BASIC TECHNOLOGY RESEARCH		TECHNOLOGY DEVELOP		PMENT	SYSTEM/SUBSYSTEM DEV		ELOPMENT	
TRL 1	TRL 2	TRL 3	TRL 4	TRL 5	TRL 6	TRL 7	TRL 8	TRL 9
TECHNOLOGY READINESS LEVEL								
ENER Italian National agency for new technologies, Energy and sustainable economic development www.enea.it					Territorial and Production Systems Sustainability Department Models and Technologies for Risks Reduction Division Seismic Engineering and Prevention of Natural Risks Laboratory			

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