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In particular, the research has been carried out and is being carried out in relation to the following areas:

- definition of environmental and energy strategies to be applied to buildings aimed at improving energy performance and reducing environmental impact. The characterization of office, residential and school building types in relation to the achievement of nZEB and low-carbon buildings was studied. The research analyzed in detail the environmental and technological system, also considering the building-plantsystem.
- envelope techniques to achieve sustainable technological solutions.
For the new buildings, technological solutions for the external envelope that are sustainable from an energy, environmental and economic point of view have been proposed.
The research in this area also involved the analysis of data from an experimental campaign on an innovative advanced screen façade system with thin porcelain stoneware slabs and the study of an advanced screen façade system with wood cladding.
- analysis and recovery of the modern building heritage in relation to buildings for public use.
Critical reading of exemplary buildings of the modern building heritage and definition of methodological proposals for their possible integrated energy and environmental redevelopment.
- Assessment of sustainable regeneration strategies at urban and building level.
Strategies for the application of urban greenery in residential and industrial districts and of green facades for the recladding of existing buildings for the improvement of external microclimatic conditions and the reduction of the heat island effect.

The research activity is and has always been accompanied by dynamic simulations to calculate energy performance, life cycle assessment (LCA) to quantify environmental impact and environmental simulations to determine the microclimatic characteristics of an urban district.