

SMART SKIN ENVELOPE
Innovative and dynamic façade systems

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Partnership
UNIFI | Interuniversity
Centre ABITA
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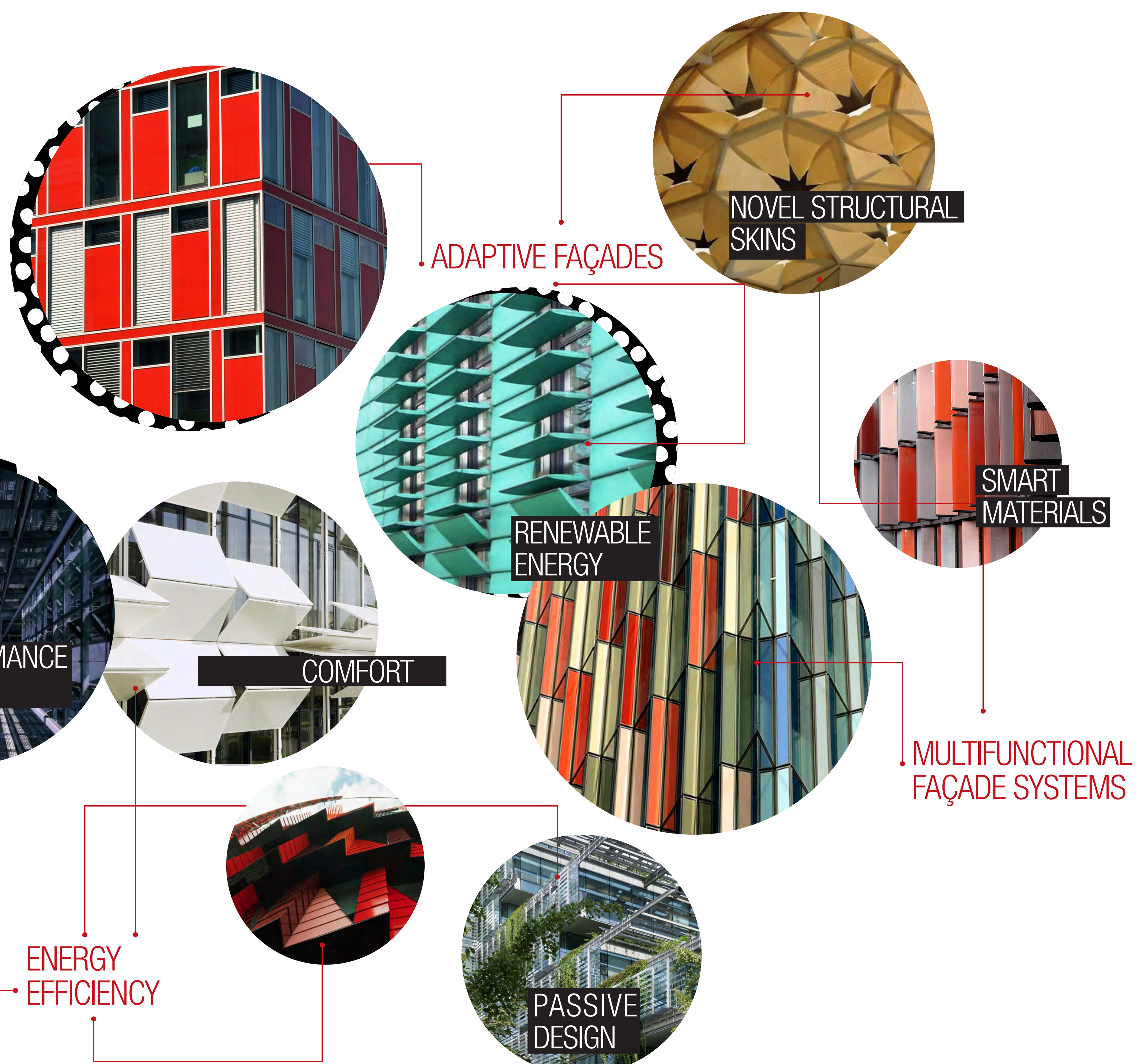
Founding by
POR CRO FSE 2007-
2013

Budget
90.000 €

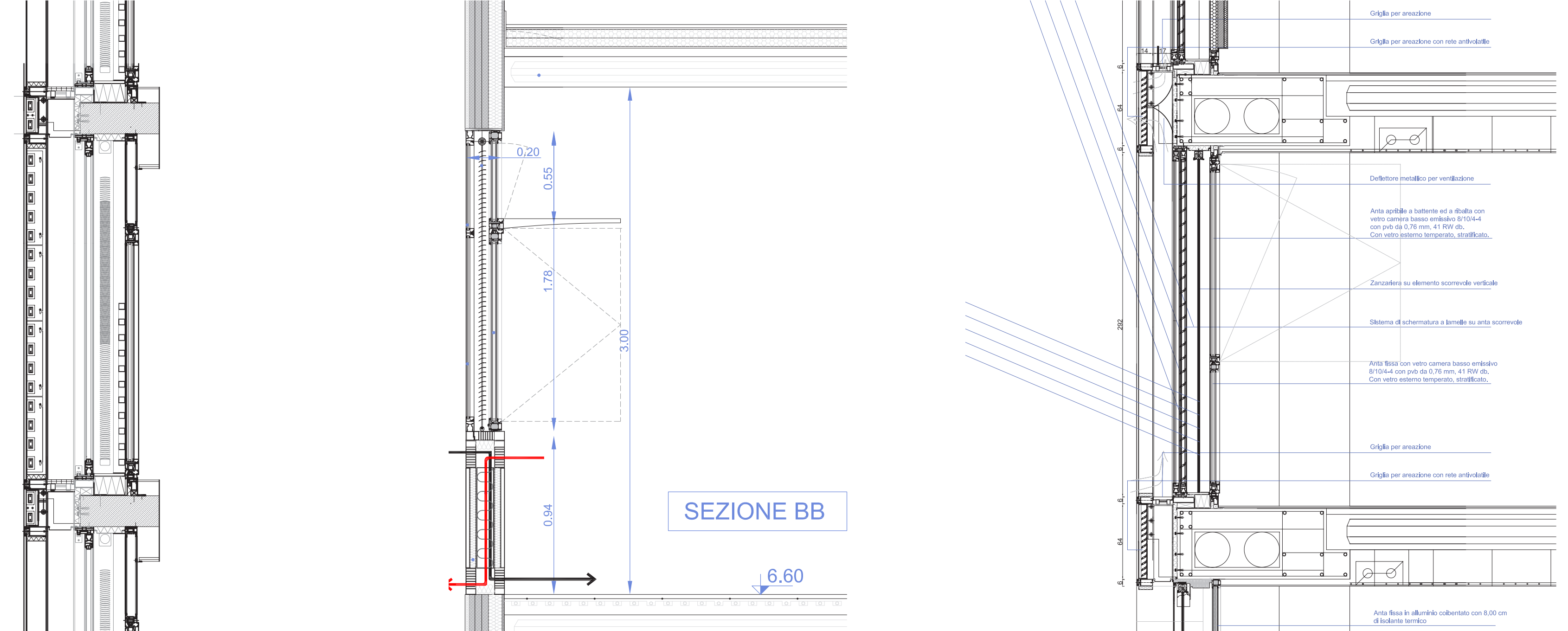
Numer of funded
research grants
1

Keywords
Innovative
Technologies for
Mediterranean Area,
Adaptive Envelope,
Renewable Energy,
NZEB, Smart Materials

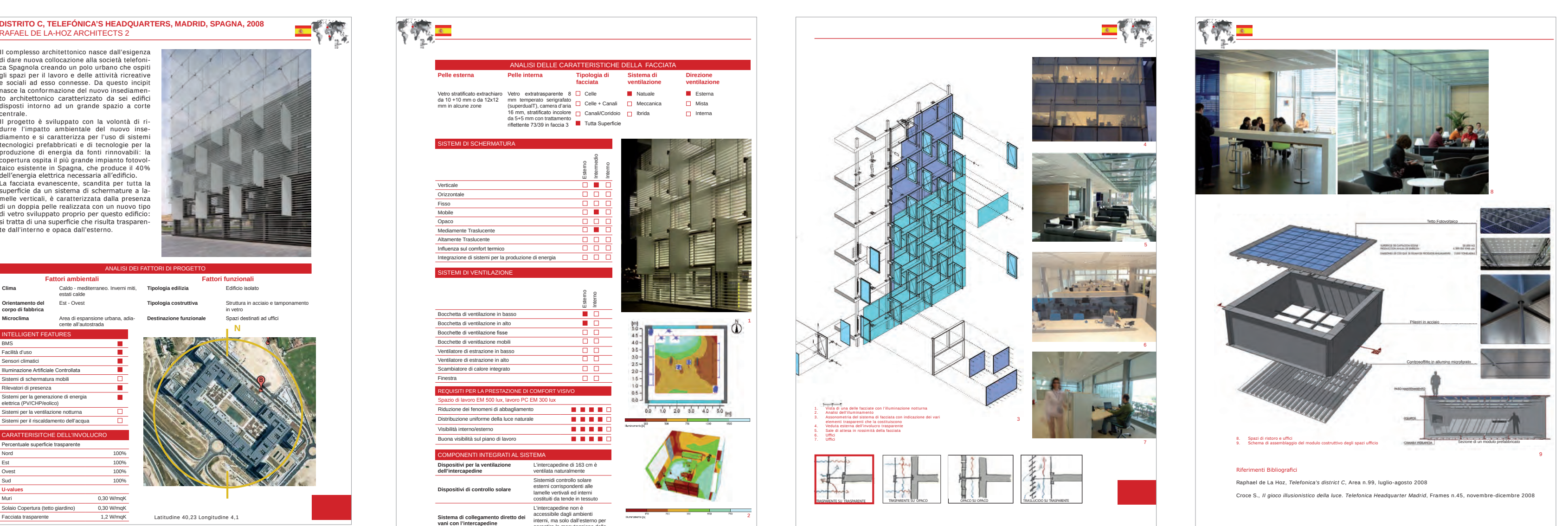
Smart Skin Envelope research analyzes the evolution of smart façade system in design and industrial production area, in order to investigate technological, functional and qualitative dynamic façade standards and evaluate buildings envelope energy performance. Furthermore, research project has been developed for spreading research topics identified by Cordis a& European Directive 2002/91 and 2010/31, which objective is to design smart façade systems able to increase building energy performances by 2020. Envelope system can be developed, in fact, as dynamic systems that are able to interact between indoor and outdoor environment, decreasing building energy consumption as well as producing renewable energy. Finally, aims to increase design knowledge and adaptive envelopes energy performance for hot climate through energy performance assessment analyses developed within dynamic energy simulations.



EXPERIMENTAL PROTOTYPE DEVELOPMENT



DATABASE FACT SHEETS



PUBLICATIONS

Rosa Romano, *Adaptive envelopes to reduce the energy consumptions in the university buildings, in residences and services for university students*, Giornata Internazionale di Studi, 21 Ottobre 2016, Firenze, Centro di Ricerca Interuniversitario TESIS

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Rosa Romano, *Cap.22. Sistemi di chiusura a comportamento dinamico*, in G. Scudo (A cura di) *Integrazioni di tecnologie da fonti energetiche rinnovabili nell'ambiente costruito*. Processi, progetto/ strumenti, sistemi e componenti. Wolters Kluwer Italia, Milanofiori Assago, 2013

Rosa Romano, *Sistemi di facciata innovativi per la riqualificazione NZEB*, Azero, n. 18, marzo, 2016

Rosa Romano, *Il nuovo Centro di Ricerca medica Belfer della Cornell University*. Sostenibilità e innovazione tecnologica, Il progetto sostenibile, n. 33, dicembre, 2013

Rosa Romano, *Soluzioni d'involucro innovative: HB Heatsink Brick*, in Costruire in Laterizio n.169, 2017

DEGREE THESIS

