

A walk through
the research
paths of the
Department of
Architecture
of Florence

DIDA RESEARCH WEEK BOOK 2018



UNIVERSITÀ
DEGLI STUDI
FIRENZE

DIDA
DIPARTIMENTO DI
ARCHITETTURA

graphic design

didacommunicationlab

Dipartimento di Architettura
Università degli Studi di Firenze

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didapress


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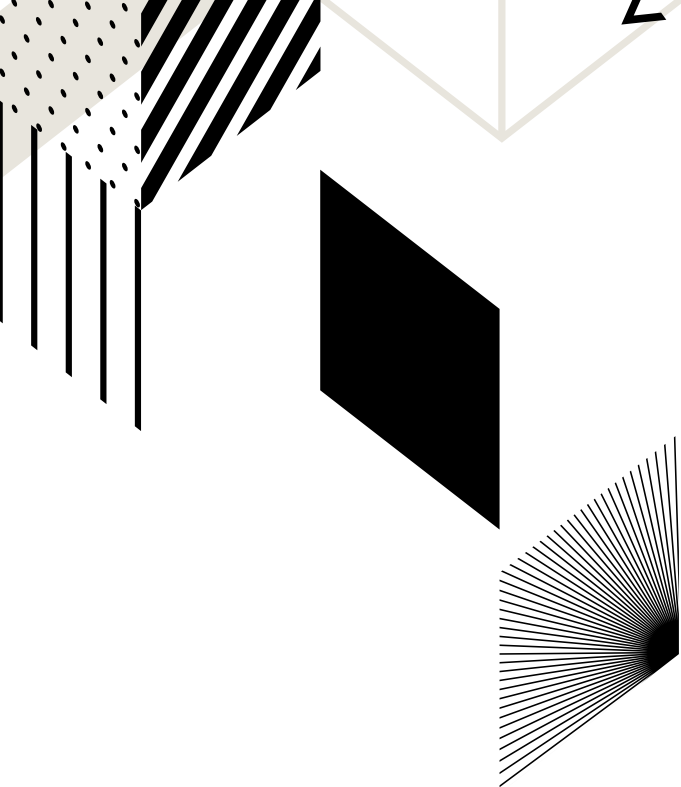


In February 2018, the Department of Architecture of the University of Florence (DIDA) promoted an open and public analysis and evaluation of the research carried out by the Department during its first five years of existence in order to define its strategy, the relationship with third and second cycle education, the role of experimental research and the DIDA-LABS laboratory system, as well as of research units and inter-university research centers.

The objective of the DIDA Research Week, through the documentation, communication and evaluation of the activities carried out by the Department in national and international research projects or in individual or exploratory projects, is an analysis and an in-depth reflection on the research activities at all levels carried out during the first five years of the Department: a wide and transparent reflection which communicates what the research carried out by DIDA is in all its different forms, calling the most qualified colleagues in Florence, Italy and abroad to discuss and to evaluate it and to contribute to the identification of future goals, strategies and actions.

The transparency strategy in scientific communication developed by the Department plays a central role not only concerning the dissemination of knowledge but above all for the effective evaluation by the entire scientific community, certainly more effective than the current assessment procedures. The increasingly international dimension of research and education requires the maximum possible transparency and accessibility of research results.

The Department's commitment to supporting scientific journals, the DIDAPress publishing, the Communication Laboratory and the first DIDA Research Week itself aims to meet this need.



**DIDA RESEARCH WEEK 5 YEARS OF RESEARCH BY THE DEPARTMENT DIDA 2013-2017:
AN ASSESSMENT FOR THE FUTURE PROGRAM.**

19-23 February 2017

Santa Teresa, via della Mattonaia 8, 50121 Florence

Monday 19 February

Disciplinary research

Interdisciplinary and multidisciplinary research

Tuesday, February 20

Competitive research, horizon 2020, industrial research, design research,
research for the third mission

Research communication, magazines and scientific publishing

Wednesday 21 February

The Ph.D. Course in Architecture

Thursday 22 February

Research, training and profession. DIDALABS, Research Units and Research Centers

Applied research experiences

Round table: Research, training, profession: DIDA Open perspectives

Friday 23 February

Research, training and profession in the design area:
scenarios and strategies for the design and project area

DIDA RESEARCH WEEK
BOOK 2018



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ABITA	
TESIS	

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Architecture and Auto-construction | LAA

Prato Laboratory | Laboratorioprato

Technologies for the Mediterranean Area Laboratory | TAM Lab

Theatre | Architecture Laboratory | TEARC Lab

Urban Design Laboratory | UD

AHCV - Architectural Heritage Conservation and Valorisation cluster	113
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Architectural Heritage Restoration and Conservation | LARC

Architectural Survey Laboratory | LRA architecturalsurveylab

Cultural Heritage Management Laboratory | CHM_Lab

Heritage City Laboratory | Heritage City_Lab

Materials and Structures Testing Laboratory | LPMS

DSI - Design and Sustainable Innovation cluster	143
Communication Laboratory didacommunicationlab	
Design for Kids	
Italian Design for the train DIT lab	
Ergonomics & Design Laboratory LED	
Modelling Laboratory for Design LMD lab	
Multimedia Architecture Interaction Laboratory mailab	
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Sustainable Design Laboratory sustainabilitylab	
ICT - Information Communication Technologies cluster	189
Informatic Laboratory of Architecture informaticlab - LiA	
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Critical Planning & Design	
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Florence Accessibility Lab FAL	
Heritage and Euro-Mediterranean Design Dar_Med	
International Group on Urban and Architecture Design INTEGRO_UAD	
Landscape, Cultural Heritage. Project PPcP	
Local and Indigenous Knowledge Systems and Innovation INN-LINK-S	
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MON.LAB AOU-CAREGGI

Monitoring lab | ICT systems for building management support

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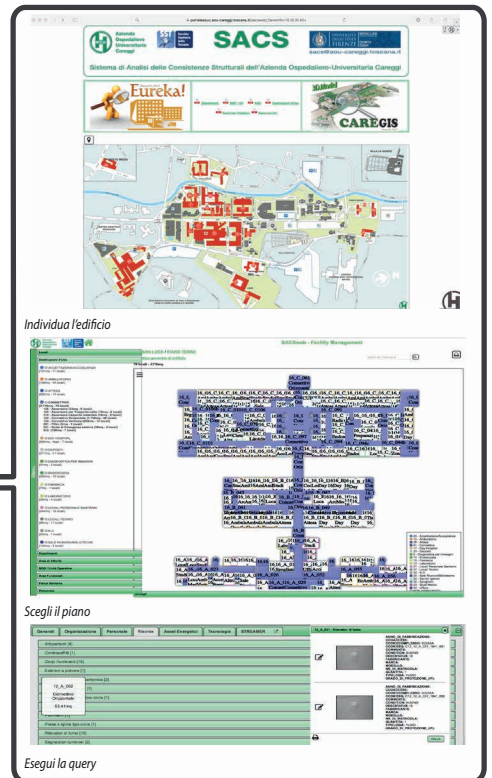
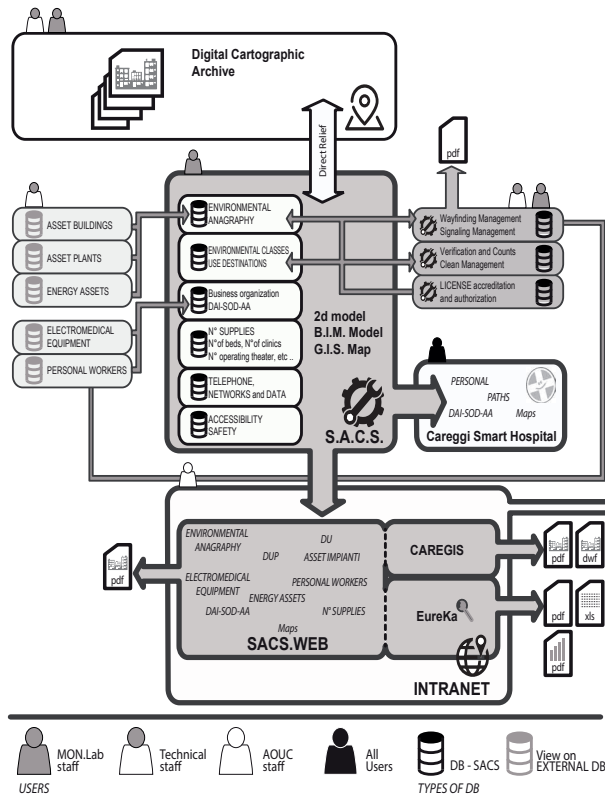
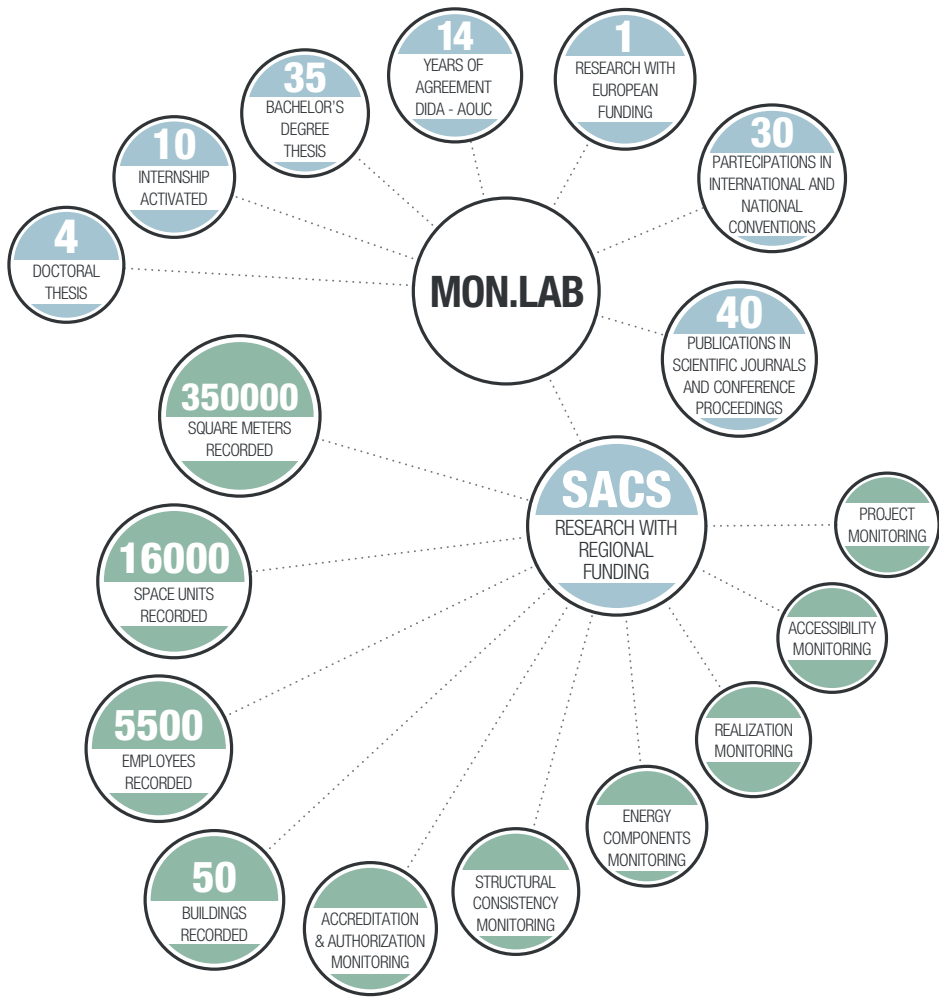
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In 2004 Careggi University Hospital, in the context of an extensive functional reorganization program of its own building heritage, defined a research convention between the Faculty of Architecture (today DIDA) and the Information Engineering Department (DINFO) to create a monitoring lab to support the planning and monitoring of the redevelopment program through ICT systems development. Among the various activities developed by the laboratory in 14 years of cooperation, we illustrate the creation of a suite with which the hospital is managing its building, technological and organizational heritage since 2008. This software, called S.A.C.S.*, has been recently chosen by Regione Toscana to define the entire structural analysis of the regional health building heritage, about maintenance and data collection thematic.

The S.A.C.S. system, acronym for Structural Consistency Analysis System, belongs to management systems defined as Computer Aided Facility Management, computerized management methodologies for complex building assets designed to facilitate the actors involved in administration activities. The SACS system, developed in its first version in 2004, manages and supply information about typological-environmental consistencies of the building patrimony of the University Hospital of Careggi by piloting digital maps. S.A.C.S. consists of two main operating suites.

The first suite operationally manages the phase of data feeding and implementation, the second one gives the information framework to system's users in a synoptic or detailed form. The data management suite it's composed of the IT platform that pilots the digital cartography. The information flow starts from the definition of the single space unit as a basic information unit (record) of the management system. The digital cartographic archive therefore represents the database core, while the geographic-dimensional information are the real data processed by the system. Data are correlated through space unit codes, health organization or activity areas, enabling S.A.C.S. to extract integrated georeferenced information about staff registry, Electro-Medical Equipment, building-technical Asset, components related to energy management systems. Therefore S.A.C.S. is able to extract structured information, correlate it to others coming from external information systems, and create integrated reports. The suite generates a dynamic information flow by exporting data in standard formats such as HTML, DWF, SVG and PDF, ready to be published on the company intranet and consulted with a common web browser. The second suite provides the information on the WEB platform. The module includes three main products which allow the user to have a specific or synoptic view of all information processed by S.A.C.S. through graphical-numerical reporting. SACSWEB interface, through dynamic navigable maps in SVG format, provides information aggregating specific queries such as health organization, use destinations and usage classes. CAREGIS processes information of the whole hospital heritage, and allows the visualization and quantification of data related to external areas, hypogeal connective paths and territorial surfaces typologies. Both CAREGIS and SACSWEB export floor plans in pdf format, published by layer with the semantic definitions attributed by S.A.C.S. Eureka is a search engine: it interrogates the entire information assets of S.A.C.S. and allows specific or organized searches for thematic groups, exportable in graphic format (PDF) or in XLS tables.



*S.A.C.S. is a SIAE registered software. AOU-Careggi is the property owner, Luca Marzi (DIDA), Ernesto Iadanza and Alessio Luschi (DINFO) are certified developers.



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DIDA, the Department of Architecture of the University of Florence, performed an open and public analysis and evaluation of the scientific research carried out during the first five years of activity since its establishment, in order to define its research strategies, their relationship with the 2nd and 3rd cycle education, the role of experimental research and the system of labs at DIDA (DIDALABS), as well as the role of research units and interuniversity research centers.

The aim of the DIDA Research Week Book 2018 is to communicate the results of such research, in all the aspects which were carried out at DIDA during its first five years of activity.

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