

Interactive Multimodal Systems in Cultural Heritage and Creative Industries

Nuno Correia



<http://nova-lincs.di.fct.unl.pt>

NOVA-LINCS || Departamento de Informática
Faculdade de Ciências e Tecnologia, Universidade Nova de Lisboa

Multimodal Systems

Part of NOVA-LINCS (NOVA Laboratory for Computer Science and Informatics) funded by FCT/MCTES

Hosted by the Computer Science Department, FCT NOVA

Research in Interactive Multimedia

Research methods and tools to deal with the different aspects of **producing, describing, processing and presenting multimedia information**

Media and Cultural Heritage

Multimodal and heterogeneous information

Transform **data** into **knowledge**

Media **no longer opaque: understand** (big) data including text, image, audio, video, motion, geo-location, ...

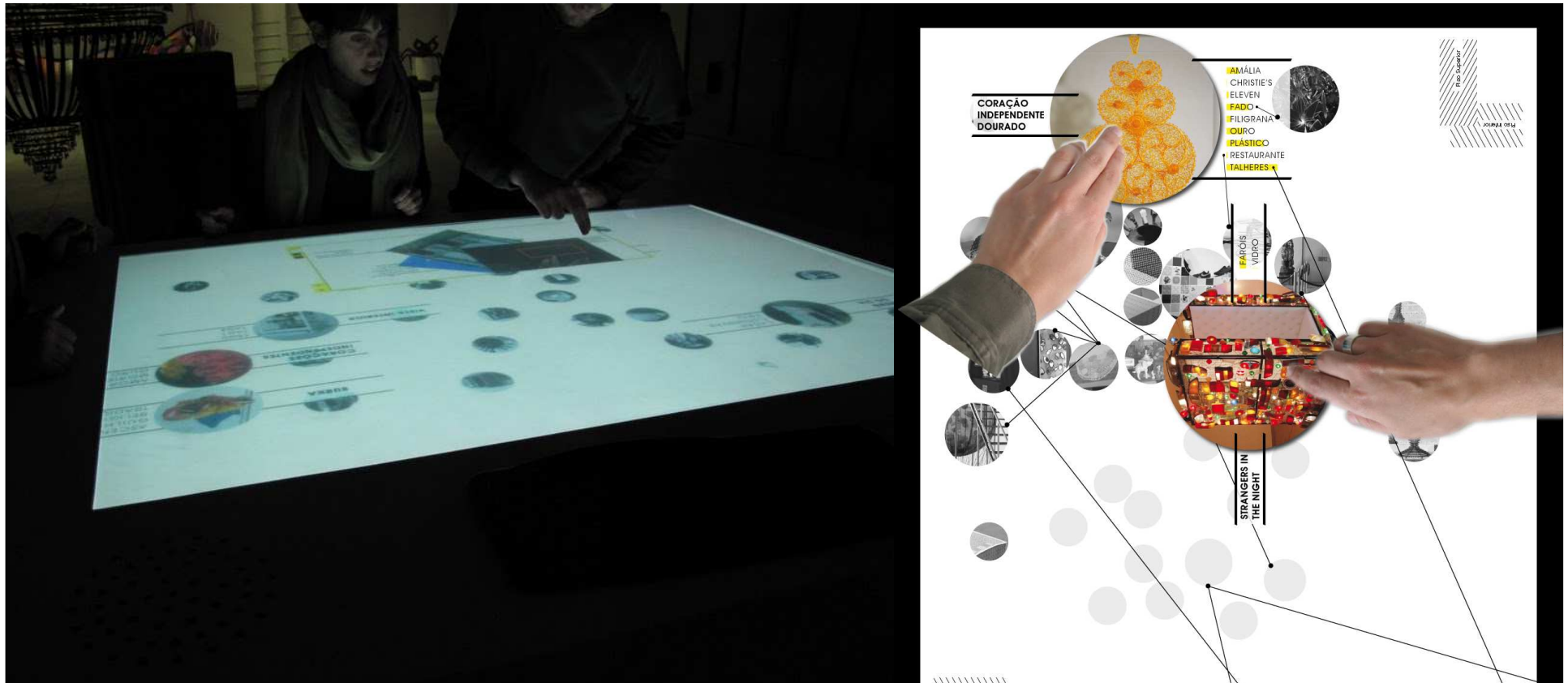
Advanced processing tools

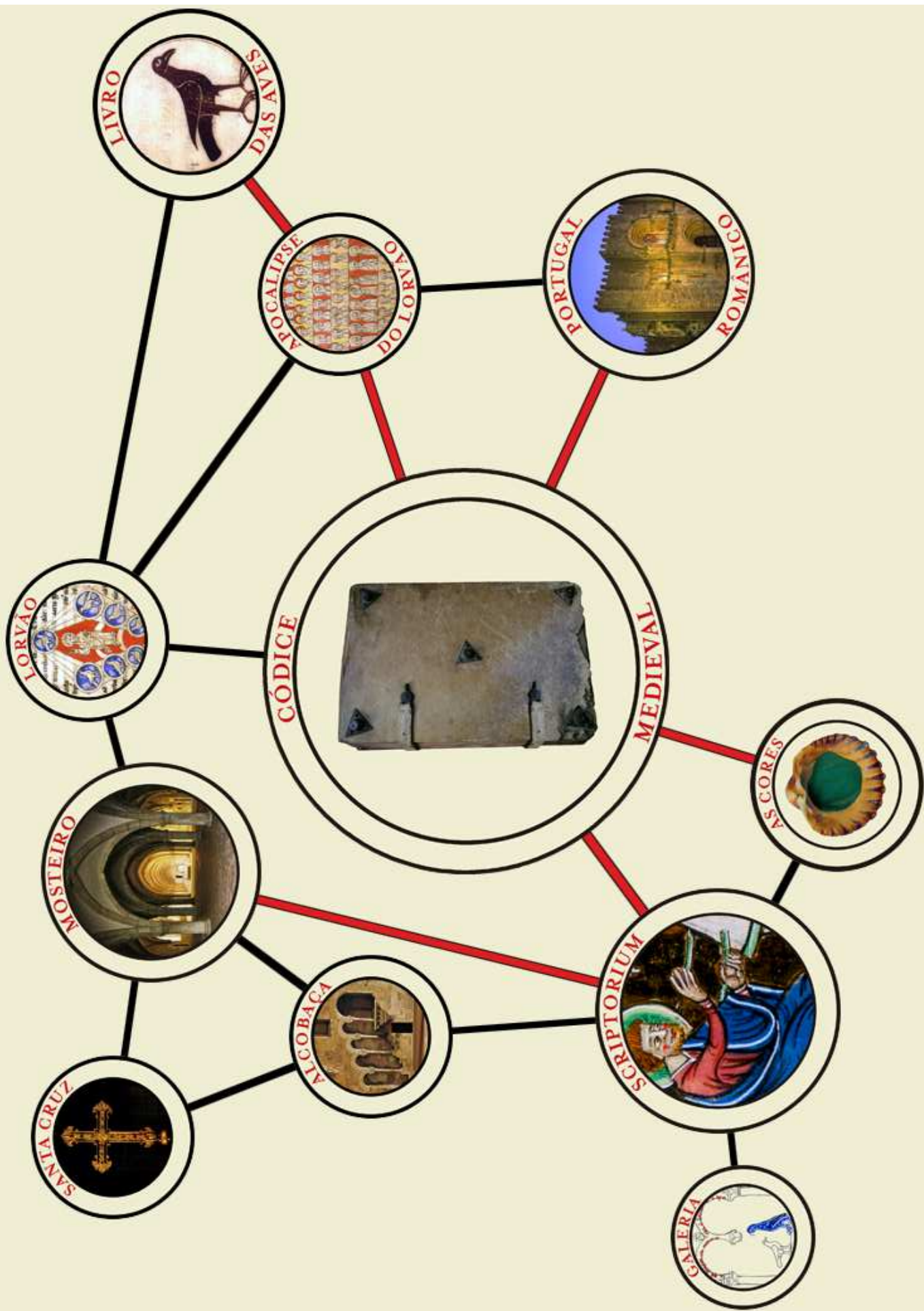
User centered design

Open access

ArtTouch

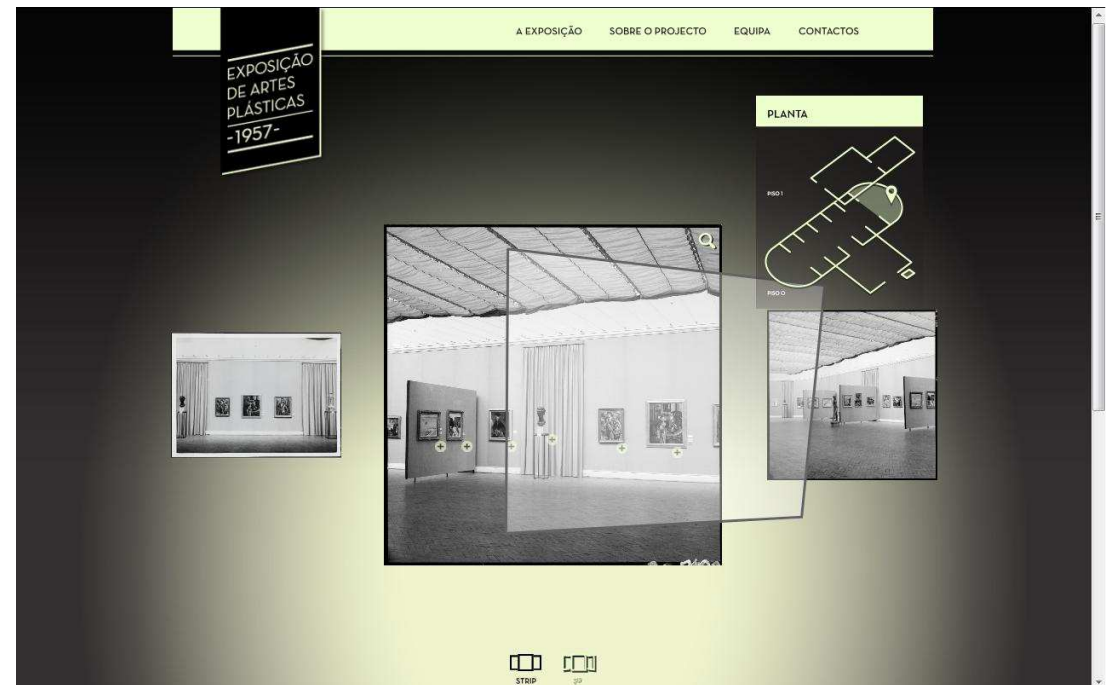
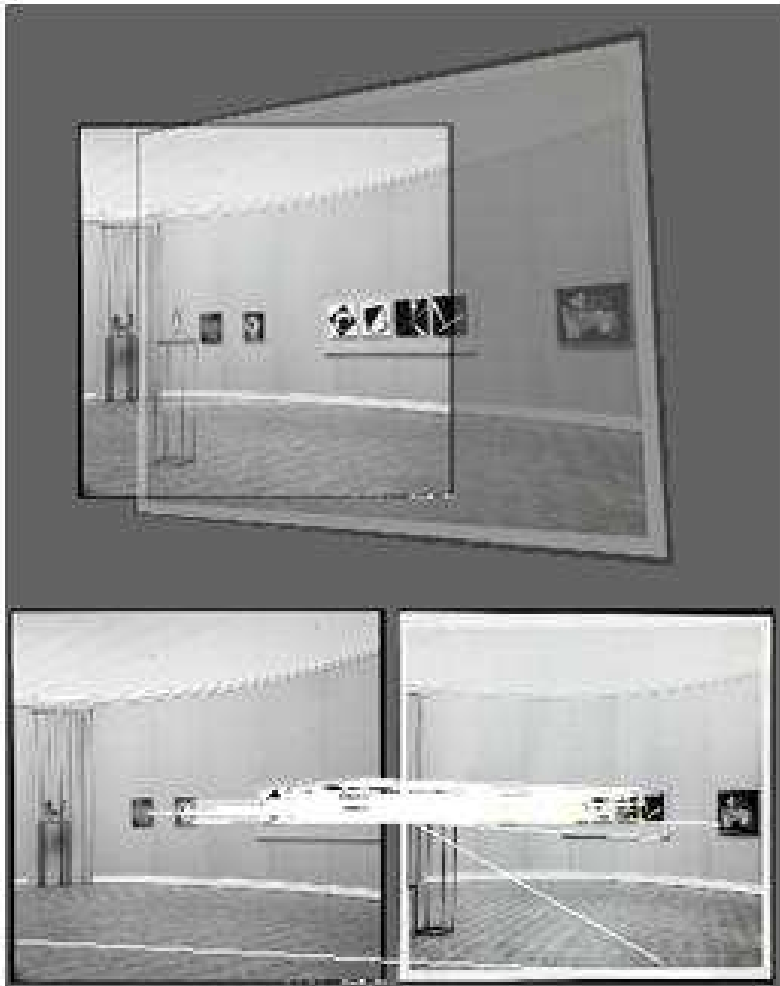
Multitouch interface to explore an art exhibition, collect data and foster public participation (with Prof. Pedro Andrade)
Berardo Museum – Joana Vasconcelos exhibition





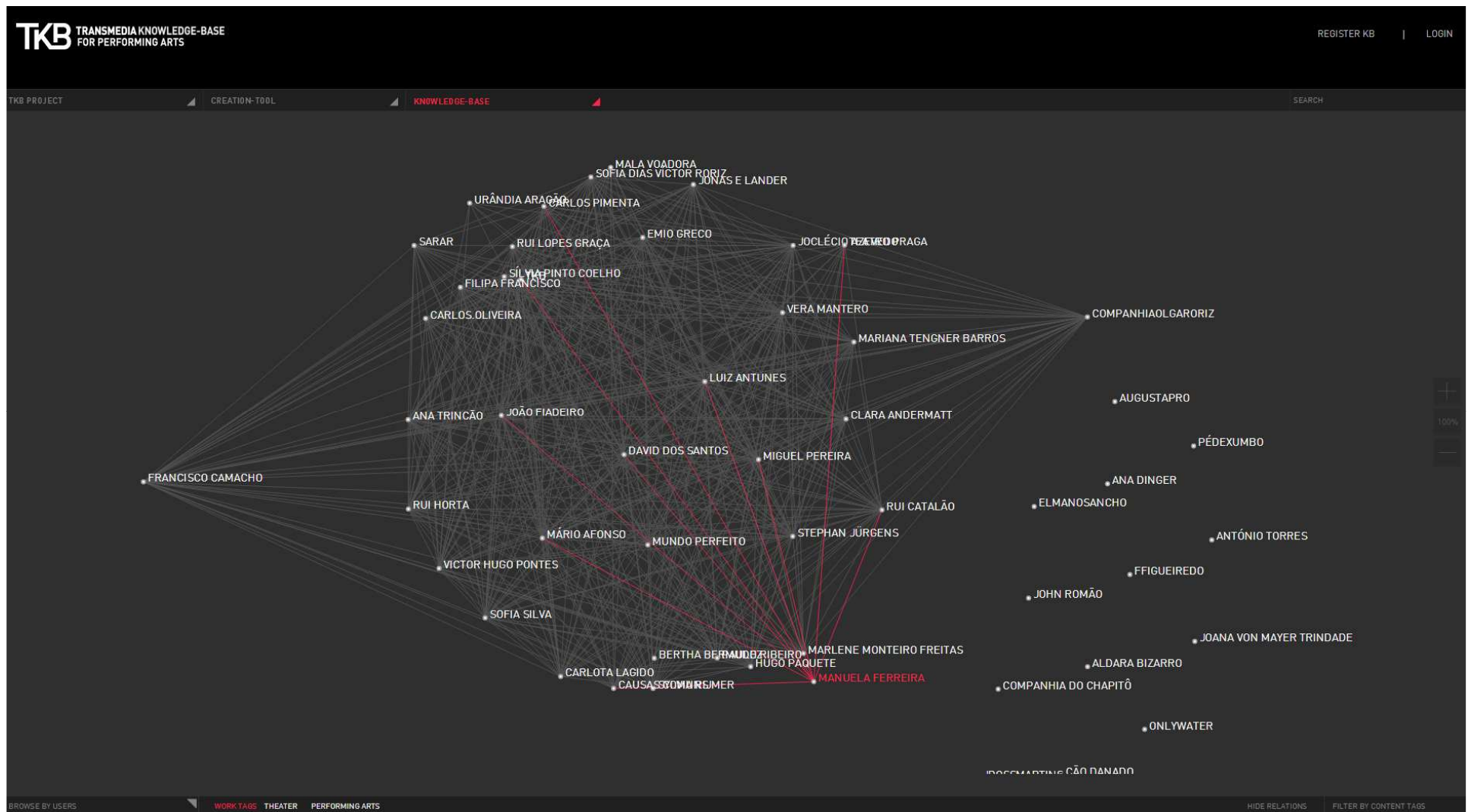
1957 Modern Art Exhibition

With Prof. Raquel
Henriques da Silva,
FCSH/UNL



With Prof. Carla Fernandes,
FCSH/UNL

Dance Knowledge Base



LX Conventos

FCT funded project on urban space

With Instituto de História da Arte (FCSH/UNL) and Câmara Municipal de Lisboa



LX Conventos

Web based platform for management and dissemination of all information captured and generated in the project

Several types of content search

Enables collaboration between researchers and stakeholders

Relevant for the general public

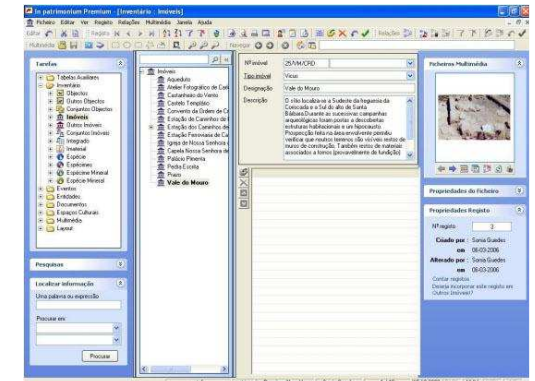
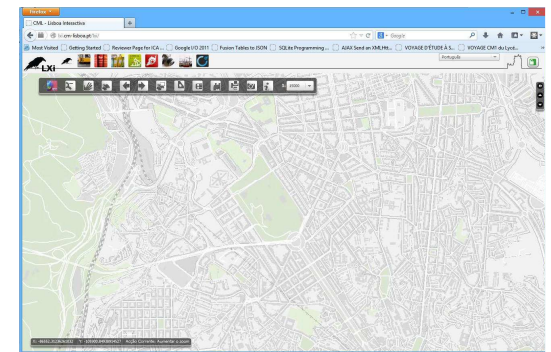


Resources

Historical cartography (1650-1950)

Photos (past and current)

Existing databases (In patrimonium and LXi)



Historical Cartography



Images



S. Bento

LX Conventos

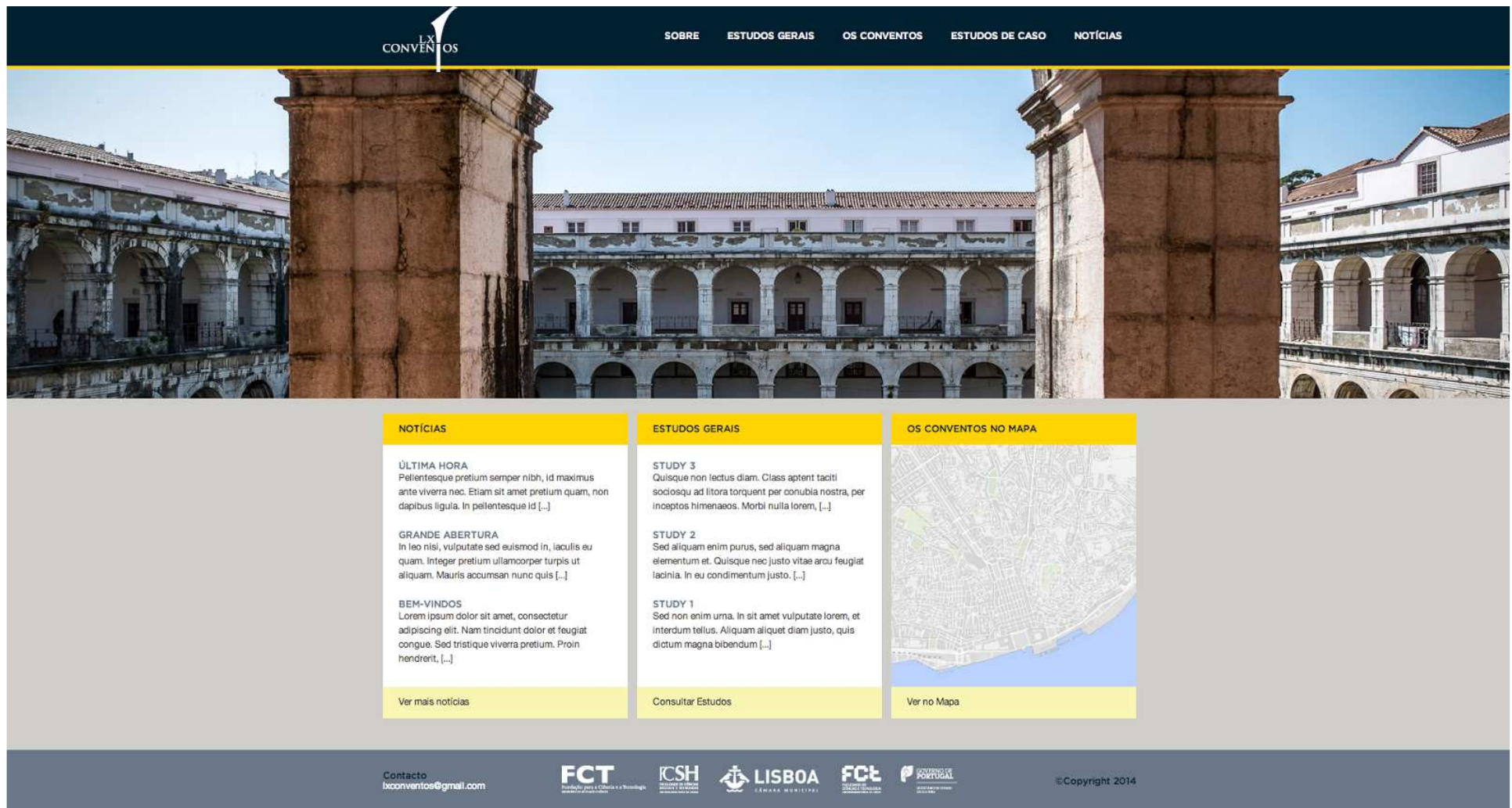
LxConventos Platform/Website: <http://lxconventos.cm-lisboa.pt>

Interactive Map

Evolapse - Image Matching Tool

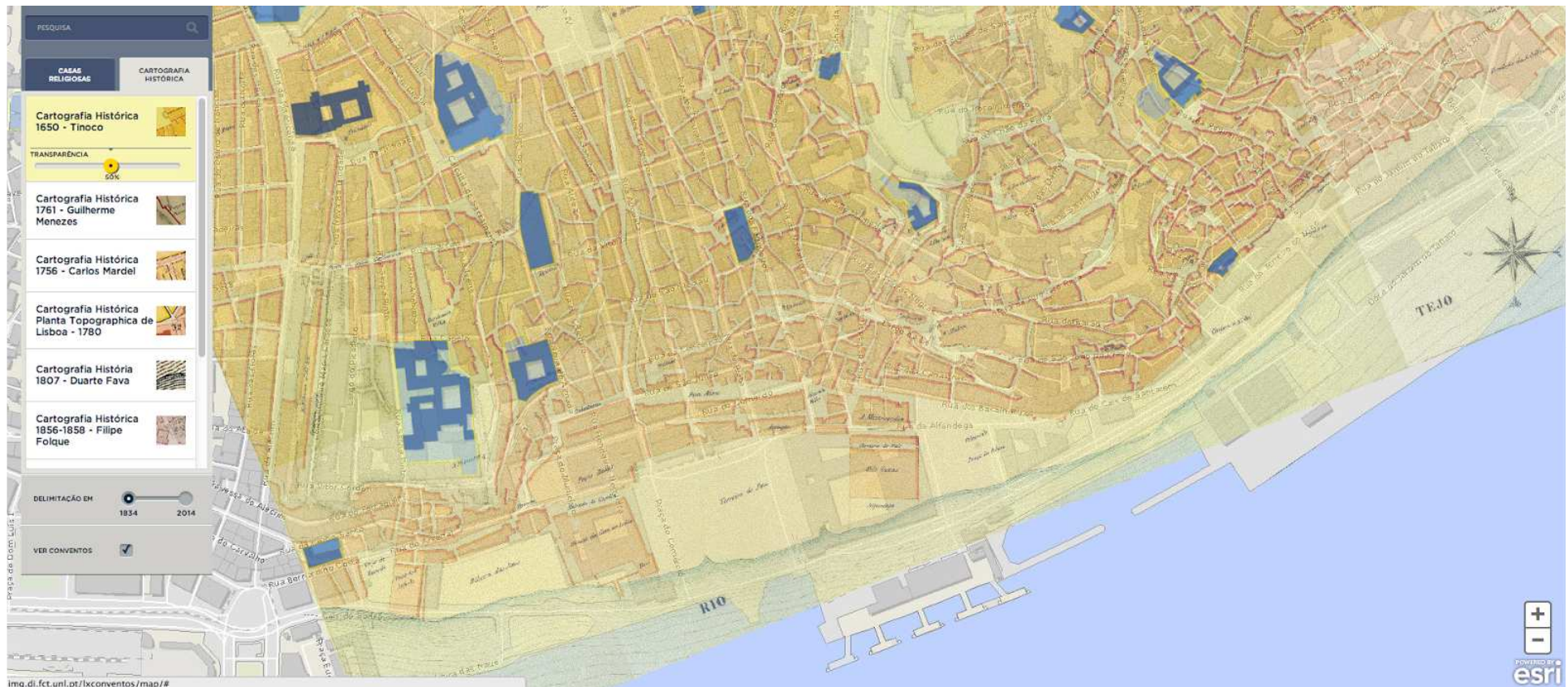


Platform



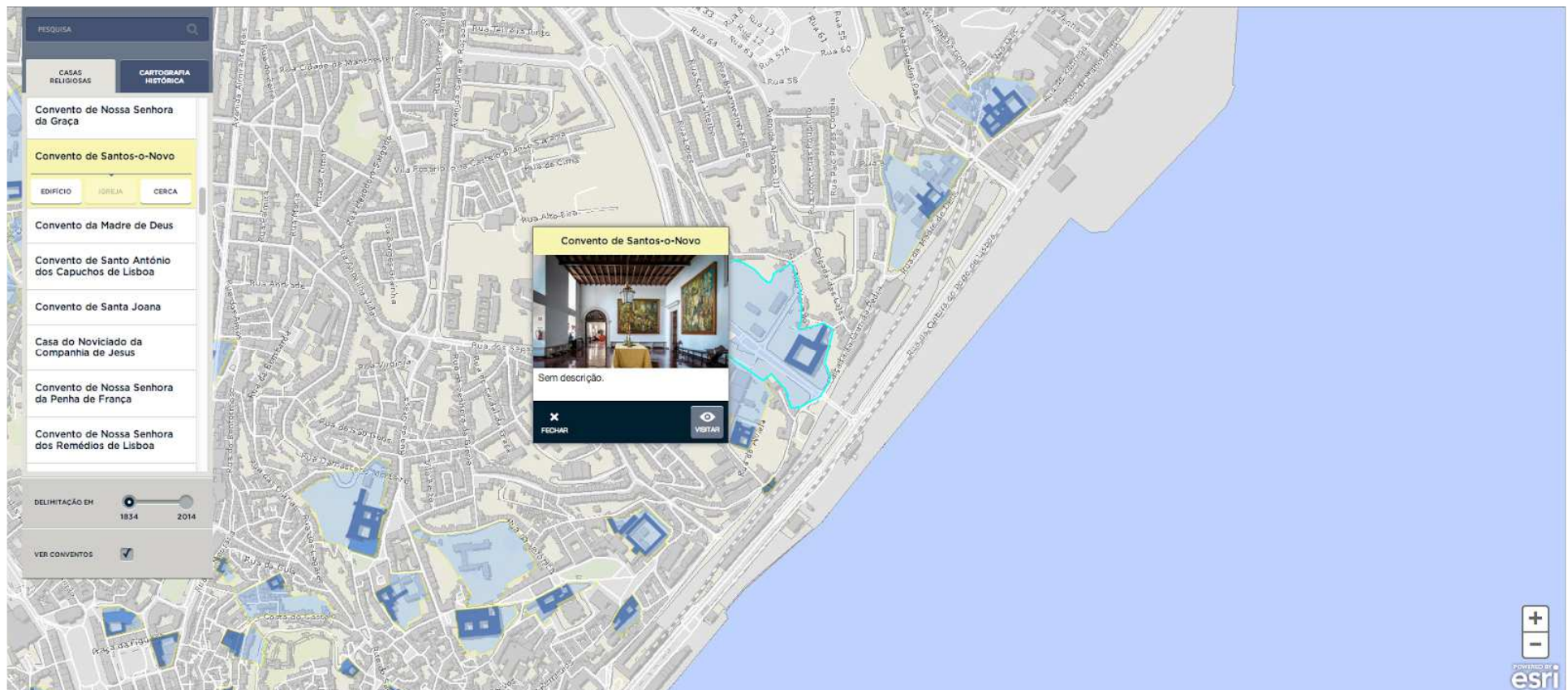
Platform

Cartography from 1650 over current map



Platform

Religious houses



Evolapse

Establish and edit relations among images of different periods
Generate external representations (2D-3D, video) that can be used in other contexts such as websites



Evolapse

Results (1943 + 2013 images)



Multimodal Information Processing + User Experience

NOVALINCS
LABORATORY FOR COMPUTER
SCIENCE AND INFORMATICS

