

ASTER EMILIA-ROMAGNA HIGH TECHNOLOGY NETWORK:

TECHNOPOLES

TekneHub 



BOLOGNA | MODENA | REGGIO EMILIA | PARMA | PIACENZA | **FERRARA** | RAVENNA-FAENZA | FORLI'-CESENA | RIMINI



UNIONE EUROPEA
Fondo europeo di sviluppo regionale



COSTRUIAMO INSIEME IL FUTURO



RETE ALTA TECNOLOGIA
EMILIA - ROMAGNA
HIGH TECHNOLOGY NETWORK



The Emilia-Romagna Region is committed to ensuring socio-economic dynamism, innovation capacity and quality of development to foster the creation of new business, the growth of the existing ones and to create therefore new employment opportunities. In Emilia-Romagna innovation at all levels is the result of the initiative and creativity of our entrepreneurs and skilled manpower, in a very heterogeneous business system which is all the more robust (from very small to medium-small and large enterprises, from manufacturing and agricultural to co-operative enterprises). It is a continuous process, embedded in the widespread culture of the Emilia-Romagna society, and supported by politics and institutions. It will certainly not be out of place to speak of “teamwork” to foster innovation, research, internationalization. For this reason, the support to companies networking, the development of competitive benefits at district level and the shift “from productive districts to technological districts” (which by the way is the title of a recent regional call for proposal), the creation of structured co-operations with the research system, the promotion of new innovative enterprises represent fundamental goals of our industrial policies in Emilia-Romagna. To be competitive in an ever-changing world, with new economic giants such as China, India, Russia, Brazil and other rapidly emerging countries, we want to trigger a continuous improvement of processes and products, the granting of new patents, to ensure sustainability growth and qualified employment. Many elements in the innovative regional system have the necessary qualities to play their role in this challenge: district leading companies, champions in term of innovation and global market positioning; small and medium enterprises which are more dynamic; new high tech businesses; universities and research centres that must become active partners for the production system in every aspect of their activity. Emilia-Romagna has the capacity to organize cooperation in an innovative world, creating excellent quality products and labels. This system will undoubtedly gain momentum from the regional policies which considers knowledge as the fundamental element in competitiveness, as it results in the on-going development of the Regional High Technology Network. This is where the most modern and innovative ideas are developed and turned into patents and new opportunities. This commitment will continue in the next years and become even stronger, given the fact that our ultimate priority is employment, so as to avoid that the current slight economic recovery is combined to a further unemployment growth.

Gian Carlo Muzzarelli

Minister of Productive Activities, energy, sustainable development
and green economy Emilia-Romagna Region



The Emilia-Romagna Region has undertaken the goal to identify, design and develop a regional system for industrial research and **technology transfer**. Technopoles will represent an infrastructure network that will host and carry out activities, services and structures for industrial research and technology transfer and incubators for the creation of **new businesses**. From productive to technological districts, this is the strategic view under the Region interventions. The Technopoles Programme confirms the commitment of Universities and Research centres based on the regional territory in promoting **innovation & knowledge economy**, and the evolution of the production systems into high technology.

Technopoles will be created on the regional territory, where industrial research laboratories, innovation centres, new technology businesses incubators, structures for technology transfer, and research laboratories for companies will be installed. This network, therefore, will have a significant strategic role, first and foremost for the scientific institutions being involved: the universities of Bologna, Modena, Reggio Emilia, **Ferrara**, Parma, the Polytechnic and Cattolica of Milan (with its offices in Piacenza), CNR, ENEA, the Istituto Ortopedico Rizzoli and other research institutes and research centres. But also Local Authorities took part to this project, namely Provinces and Municipalities that will accommodate the network laboratories and infrastructures. The regional Technopoles globally cover **160 thousand square meters**, involving some important urban requalification interventions as well.





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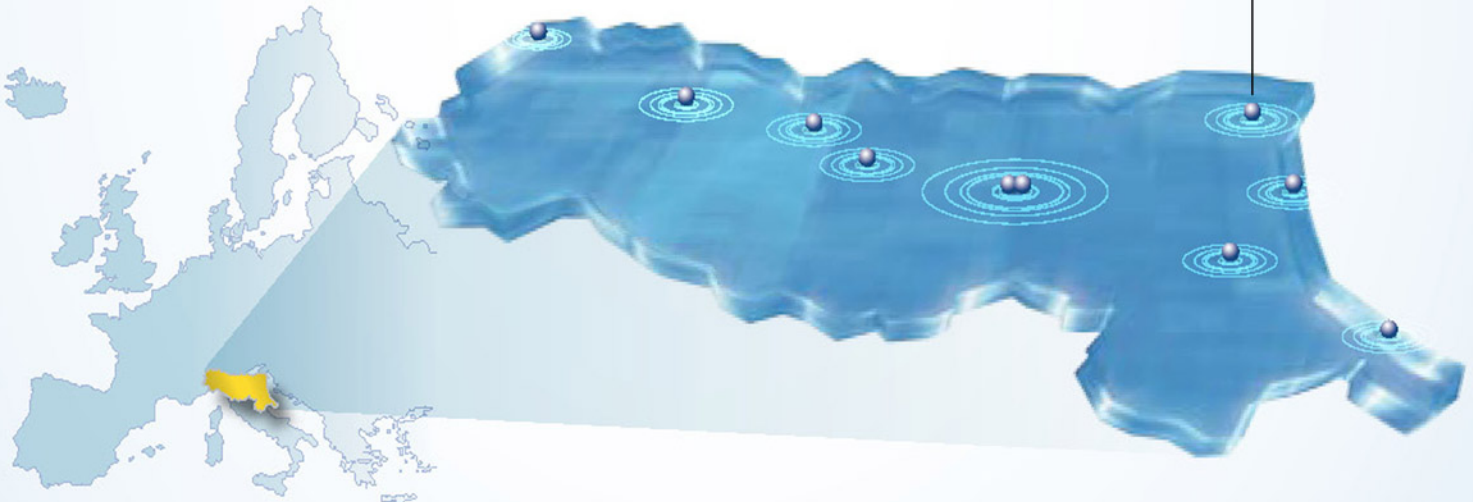
Technopoles permanently involve in the programme about **1800 researchers**, 560 of whom are represented by new contracts or research fellowships and the other are researchers and lecturers already working in universities and Research institutes who will join a growing strategic network for the industry.

The Region has then set the creation of **Technopoles for industrial research and technology transfer** programme with an important financial commitment, thanks to the European Programme ERdf 2007_2013 RoP and regional funding. This programme meets the priority goal set by the EU to create an economy based on innovation and knowledge and on a growing involvement in R&D, as key factors for competition and for boosting economic growth.

Within this Programme, criteria and methods were defined to organize a regional **High Technology network** in Technopoles and regional thematic Platforms: agri-food, **construction**, energy and environment, icT and design, life sciences, mechanics and new materials.

Globally, there are 137 millions in public funding both from European funds and regional resources, to co-finance universities, Research centres and local Authorities that are committed to supporting, in their local areas, the Technopoles programme, this totalling **241 millions of investments**.

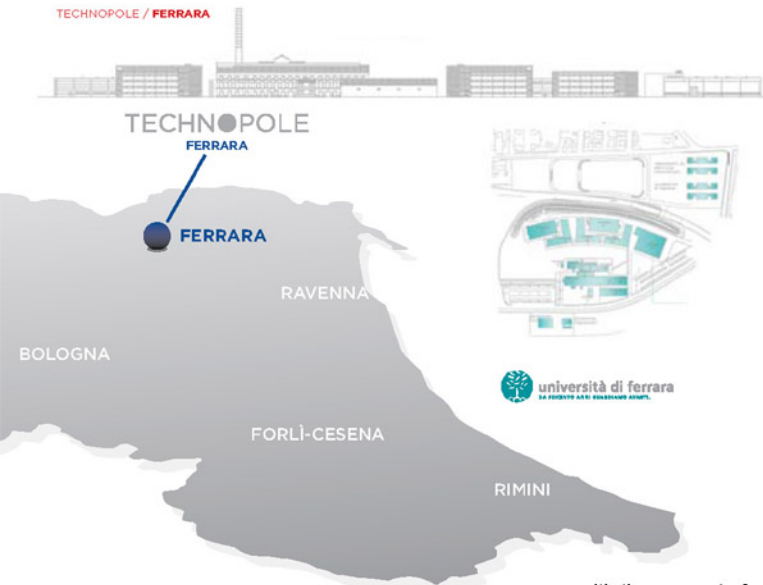
TekneHub Tecnopolo di Ferrara





The **Technopole of Ferrara** covers about 12.300 sm of laboratories and research centres, shared between:

- Technological Scientific Pole, ex Eridania, Ferrara
- Chemical Biomedical Pole, via Mortara, Ferrara
- Environment Pole, via conca, Malborghetto di Boara (FE)
- Cento Area, corso Guercino, Cento (FE)



with the support of:
Fondazione per l'Agricoltura Navarra
Chamber of Commerce of Ferrara
Cassa di Risparmio di Ferrara
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Cassa di Risparmio di Cento
Fondazione Cassa di Risparmio di Cento
HERA, CADF SpA, AREA SpA

Ferrara Promoters:

Province of Ferrara
Municipality of Ferrara

università di ferrara
DA SEICENTO ANNI GUARDIAMO AVANTI.



TekneHub Laboratory_Constructions

Methods and technologies for architectural restoration
Equipment, materials and techniques for museography and exhibition design
Diagnostic and preservation
Technologies for the recovery and preservation of the palaeontology and archaeological heritage
Management and enhancement of the cultural heritage

TerraeAcquaTech Laboratory_Energy&Environment

Water quality
Characterization of ground-water and hydrogeochemistry applied to the salt-wedge
Management of water supply systems and sanitary and environmental engineering
Innovative techniques for environmental improvement and complex matrices characterization
Metallurgy, corrosion and polymeric materials for the environment
Bio-geochemistry and bio-indication of water
Valorisation, protection and rehabilitation of resources of agri-food interest

MECH-LAV Laboratory_Mechanics&Materials

INTERMECH-LAV development and implementation of services for businesses
LASSCE development and implementation of an integrated system of Acoustic and vibration laboratories
SILAV development and implementation of a mechanical testing and simulation laboratory

LTTA Laboratory_Life Science

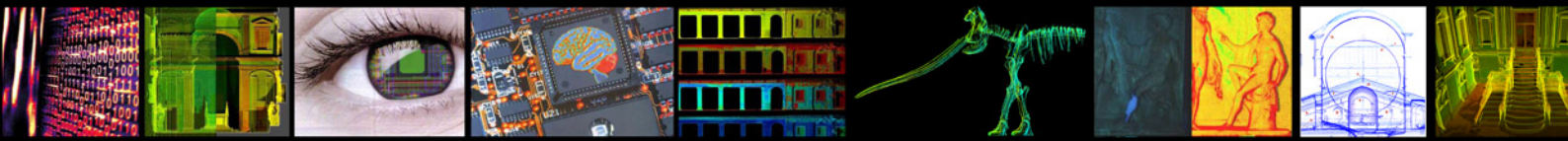
Neural stem cells for damage repair
Mesenchymal stem cells (MSC) in post-infarction recovery
Therapeutic use of the adipose tissue

archaeology | architecture | conservation | cultural heritage | diagnostic |
exhibition design | management | materials | museography |
palaeontology | refurbishment | restoration | technologies | valorization

www.teknehub.it

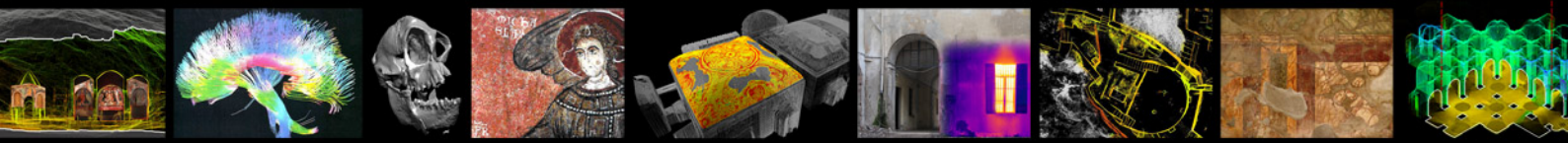
TekneHub is one of the four Laboratories of the Technopole of Ferrara, within the European Platform Construction of the High Technology Network of the Emilia Romagna region, the first regional plan in Italy focused on fostering Innovation, Industrial Research and Technology Transfer.

TekneHub refers to the University of Ferrara with the main aim of supporting SMEs to develop new products, methods and services or to adapt their own ones, to the specific needs of the cultural heritage.



TekneHub works in the main field of advanced techniques for refurbishment and restoration, innovative technologies for diagnostic and conservation (architecture, art, landscape, etc), conservation, management and valorization of the heritage, ICT procedures to assess and preserve cultural heritage.

TekneHub support both the demand for advanced knowledge (with specific researches, assessment, designs, feasibility studies, etc) and the offer of new product and services (in partnership with SMEs).



TekneHub

Scientific Head: Marcello Balzani

TekneHub Scientific Committee: Francesca Cappelletti, Fabio Donato, Rita Fabbri, Mauro Gambaccini, Gian Luca Garagnani, Carlo Peretto, Benedetto Sala, Carmela Vaccaro.

Technopole of Ferrara Manager: Daniela Lambertini



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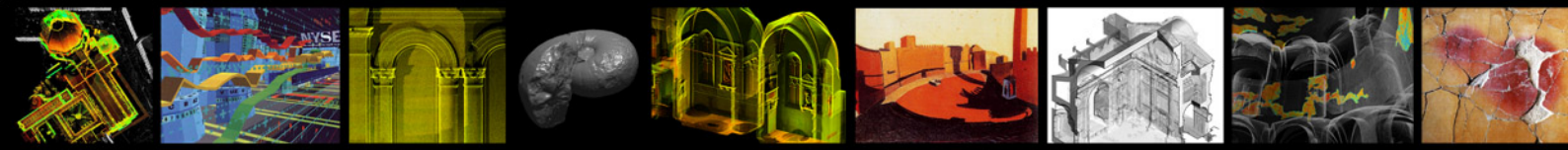


archaeology | architecture | conservation | cultural heritage | diagnostic |
exhibition design | management | materials | museography |
palaeontology | refurbishment | restoration | technologies | valorization

TekneHub develops its R&D strategies through five main research fields:

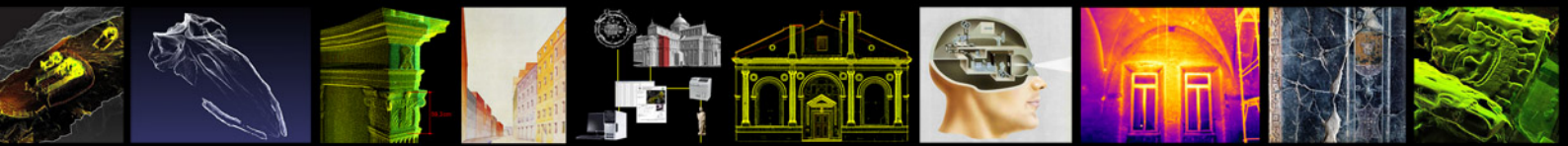
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- Methods and technologies for architectural restoration
- Equipment, materials and techniques for museography and exhibition design
- Diagnostic and preservation
- Technologies for the recovery and preservation of the palaeontology and archaeological heritage
- Management and enhancement of the cultural heritage



TekneHub is a “culture hub” that granted an autonomous status, from organisational and scientific point of view, through the development of:

- technology transfer, offering skills and technologies in the main field of the building heritage
- research to business relations originated from research outcomes
- focus market activities to exploit any excellence from local to international point of view
- partnerships in any field related to the protection, preservation, management, exploitation and enhancement of the cultural heritage.



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