# THE THEMATIC PLATFORMS OF THE EMILIA-ROMAGNA HIGH TECHNOLOGY NETWORK







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Agri-food, Constructions, Energy-Environment, ICT and Design, Mechanics-Materials, Life Science

Since 2005 Emilia-Romagna Region (I), through the Regional Programme for Innovation, Industrial Research and Technology Transfer, established the **High Technology Network** - research laboratories and innovation centres - with the aim to create a qualified industrial research offer throughout the territory by increasing the synergies between regional universities and research centres; stimulating the development of a critical mass of high-level industrial research and of more efficient methods for the transfer of new technologies from the research system to the industrial system.

Enterprises are often directly involved in Network initiatives. In fact, they act both as promoters and beneficiaries since activities are targeted at developing technologies of industrial interest and at their economic valorization with the aim to create the conditions to augment business competitiveness.



## THE OFFER OF THE EMILIA-ROMAGNA HIGH TECHNOLOGY NETWORK THEMATIC PLATFORMS

ASTER coordinates the Emilia-Romagna Technopole Network distributed in Platforms in order to promote a competence development model and to assure the availability of a research offer over the territory capable to address the technology innovation needs expressed by enterprises.

The Thematic Platforms have been created in order to:

- Satisfy business sector development and innovation needs and aggregate the knowledge within universities and research organizations in Emilia-Romagna (I), and thus bridge the gap between the demand and offer for industrial research
- Develop strategies in which future growth, competiveness and sustainability are endorsed by significant technology improvements
- Define medium-long term research and technology development objectives
- Identify the most promising technology paths to which give priority in regional, national and European research programmes
- Involve the entire economic value chain, providing that the knowledge generated by research
  is readily converted into technologies and processes, and thus into commercially
  viable products and services
- Offer marketing and product integration tools as to favour the establishment of research and service contracts and to augment Network collaborative research output
- Activate capillary awareness and training actions towards territorial enterprises

Today, the Platforms that define the research offer in Emilia-Romagna are 6





#### AGRI-FOOD PLATFORM

The Agri-Food Platform represents a reference point for the innovation needs expressed by enterprises belonging to the food and agrimechanical sectors by offering qualified support for: the development of new products and processes; the characterization and selection of new raw materials; the design and validation of equipment and plants for food processing and packaging.

The Platform in particular operates in the following fields: raw materials quality and safety, final products and processes, industrial equipment and plants, health, functional foods and the valorization of typical productions.

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#### CONSTRUCTIONS PLATFORM

The Constructions Platform focuses on industrial research and innovation for the entire construction sector, especially on issues regarding energy saving, high performances and environmental sustainability for new buildings and for the recovery of building heritage.

The most targeted Platform intervention fields are: new construction methods, in terms of urban design and planning, materials, components, building equipment and processes, building and cultural heritage maintenance and remodelling; museum and exhibition design, restoration and maintenance of historical and artistic monuments and its economic valorization.

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## **ENERGY-ENVIRONMENT**PLATFORM

The Energy-Environment Platform aims at developing and transferring innovative technologies and methods regarding: environmental quality control, natural resources management, development of renewable energy sources, analysis and reengineering of products, systems, production processes and anthropic activities in general, with the purpose to optimize the use and maximize material and energy recovery.

The major Platform interaction organizations are those dedicated to environmental control and protection; companies specifically focusing on technology production and providing environmental services; the organizations involved in the energy production filiére, enterprises belonging to all sectors interested in minimizing environmental impact.

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#### ICT AND DESIGN PLATFORM

The ICT and Design Platform promotes the development, tuning and adoption of ICT for: tackling social challenges depending on the environment, health, aging; supporting business organizations through atomization and intelligent management of process and product information; addressing individual needs.

In consideration of ICT cross-sector application, the Platform promotes in particular the cooperation with the other High Technology Network Platforms in order to increase the innovation offer for the business sector.

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### MECHANICS-MATERIALS PLATFORM

The Mechanics-Materials Platform is dedicated to all enterprises - not only to those belonging to the mechanics sector - with industrial research needs in relation to product and process optimization, development and characterization of high performing materials and, more generally, to efficiency and productivity augmentation.

The Platform intervention fields are: design, prototyping and testing, processing and nano fabrication, development and characterization of new materials, surface treatments, fluid dynamics; noise and vibration; automation: control and diagnostics, actuators: sensors.

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### **LIFE SCIENCE**PLATFORM

The Life Science Platform aims at transferring advanced scientific research results towards personalized medicine.

The Platform pursues to be a reference point for sector industry wishing to access technological know-how for product and process development, with particular emphasis on: regenerative medicine, pharmaceutical innovation, omics and the development of bio-informatics tools, innovative biosensors, personal health systems and diagnostic and therapeutic technologies; translational medicine.

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#### THEMATIC PLATFORMS ORGANIZATION

The coordination of the Emilia-Romagna Region (I) High Technology Network - and therefore the Thematic Platforms activity - is carried out by **ASTER**, the consortium among Emilia-Romagna Region (I), the universities and research centres operating on the regional territory - the National Research Council (CNR) and the Italian National Agency for New Technologies, Energy and Sustainable Economic Development (ENEA) - the Regional Union of Chambers of Commerce and the regional Entrepreneural Associations. The Consortium was established with the aim to sustain, coordinate and valorize research and technology transfer throughout the territory.

ASTER provides support services, through dedicated technical staff (SEOPs Operational Secretaries), for Platform governance; as a matter of fact, the administrative structure of the Thematic Platforms foresees the participation of representatives belonging to the High Technology Network and to the business sector coordinated by ASTER Platform through:

- Platform Steering Committee, participated equally by research and business representatives
- Work teams organized upon different activity fields:
  - Marketing and Promotion
  - Product Integration
  - Technology Scenarios Development
  - Industrial Research Training
  - Web Tools Management

Starting from mid-2010, also SME representatives from the most relevant industrial sectors have gained access to the Platform governance.









