

ENEA

we research innovation



sustainability





Department for Sustainability, Circularity and Climate Change Adaptation of Production and Territorial Systems

The Department is committed to enhancing natural, economic, and social capital by developing and applying technologies and methodologies that promote the sustainable development of production systems, territories, cities, and society at large. Its strategic goal is to support the competitiveness of production systems and the Italian ecological transition.

Through an integrated and cross-sectoral approach, the Department promotes:

- the implementation of an economic and social model based on more sustainable and circular production and consumption systems;
- actions for the prevention, mitigation and adaptation to climate change, as well as the reduction of impacts from anthropogenic and natural risks;
- integrated solutions for the sustainable management of natural capital, supply chains and industrial areas, services and cultural heritage, territorial systems and resources;
- The development and deployment of innovative solutions to support the transition towards more sustainable, resilient and circular cities, focusing on Nature-Based Solutions (NBS).

The Department also coordinates and promotes ICESP (Italian Circular Economy Stakeholder Platform) activities on circular economy issues.

Organisational Structure

Director: Dr Claudia Brunori

500 researchers, technologists, technicians and administrative staff organised into six Divisions, three technical-scientific Sections, and two administrative Services.

12 Research Centres and Major Laboratories across the national territory.

sostenibilita.enea.it - direzione.sspt@enea.it



Strategic Areas

- Efficient and sustainable resource use
- Closing material cycles
- Ecodesign
- Critical raw materials
- Climate change adaptation and mitigation
- Air quality and anthropogenic impacts
- Natural capital and sustainable tourism
- Sustainable agri-food systems and supply chains
- Sustainable industry
- Safeguarding and promotion of land and cultural heritage
- Innovative technologies and materials for manufacturing
- Innovative and sustainable biotechnological applications
- Integrated and nature-based solutions for urban regeneration
- Sustainable cities
- Social innovation



Circular Economy

This Division promotes and supports the transition to a more circular model of production, consumption and resource management in production and territorial systems. It develops pilot plants and provides advanced technical services to businesses and national and local institutions.

- Technologies for Circular Management of Water and Wastewater
- Technologies for Waste and Secondary Raw Materials
- Tools for the Sustainability and Circularity of Production and Territorial Systems

Technologies and Materials for Sustainable Manufacturing

This Division promotes innovation in processes and products to support companies' manufacturing transition toward more sustainable and circular production models.

- Ceramic and Composite Materials for Manufacturing
- Smart Components and Systems for Sustainable Manufacturing
- Technologies and Materials for Additive Manufacturing

Climate Change and Air Quality: Models, Observations and Scenarios

The Division conducts studies, monitoring and research to improve understanding of the climate system and air pollution. It helps evaluate policies and strategies for tackling climate change—through both mitigation and adaptation—and for enhancing air quality.

- Models and Measurements for Air Quality and Climate Observations
- Climate Models and Services

Anthropogenic and Climate Change Impacts on the Territory

Adopting a multidisciplinary approach, this Division explores the environmental impacts of human activities and climate change. It develops solutions to mitigate their effects on ecosystems, land, aquatic systems, urban areas and developing countries, and it designs systems and technologies for the protection and promotion of the value of cultural heritage.

- Biodiversity and Ecosystems
- Technologies for the Protection of Architectural and Cultural Heritage
- Territorial Impacts and Actions in Developing Countries

Sustainable Agri-Food Systems

This Division carries out research and innovation for the agri-food sector within the framework of the circular and regenerative bioeconomy. Enhancing the quality, volume, safety, and traceability of supply chains, supports the health and well-being of the population.

- Agriculture 4.0
- Regenerative Circular Bioeconomy
- Innovation in Agri-Food Supply Chains

Biotechnologies

Using a multidisciplinary approach, this Division develops advanced and sustainable biotechnological solutions to drive technological innovation in the agri-food, biomedical, veterinary, cosmetic, nutraceutical and environmental sectors.

- *Green* Biotechnologies (agricultural/environmental)
- *Red* Biotechnologies (biomedical/healthcare)

“ENEA is a public body dedicated to research and technological innovation, as well as the provision of advanced services to businesses, public administrations and citizens in the fields of energy, the environment and sustainable economic development.”

Law 28th December 2015, no. 22

ENEA's mission is to contribute to the competitiveness and sustainable development of Italy through research, technological development, and agency activities supporting public administration, businesses – with particular focus on SMEs – and citizens.



60

years of research and innovation



14

research centres



8

technical and administrative
directorates



17

local offices



2250

researchers, technologists, and
administrative staff



4

departments

enea.it

