



Invest in **GREEN ECONOMY**
in Emilia-Romagna

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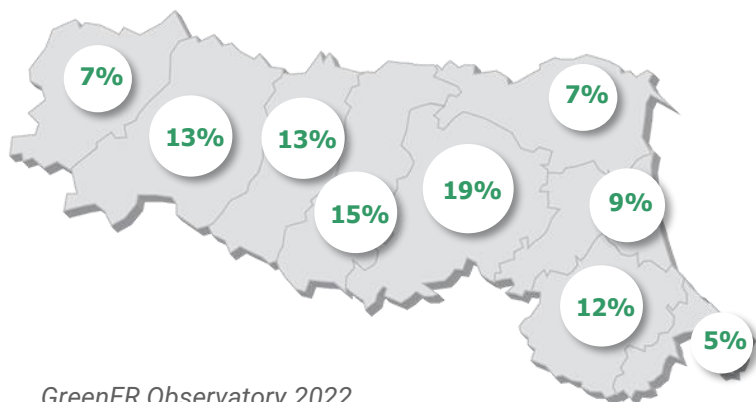
Last update: April 2023

The green economy in Emilia-Romagna is a cross-sector – comprising many different value chains and considering both “what is produced” and “how” - that is proving to be a great opportunity for new investments

MAIN SECTORS

- Agri-food
- Waste recycling
- Mechanical engineering
- Renewable energy and efficiency
- Building
- Mobility
- Integrated water cycle

CONCENTRATION OF EMPLOYEES



GreenER Observatory 2022

INNOVATION ECOSYSTEM

- **Clust-ER Green Tech** including research centres, companies and training institutes
- **Ecosister** – Ecosystem for sustainable transition in Emilia-Romagna

INTERNATIONAL TRADE FAIRS

Ecomondo, KeyEnergy, H2O Accadueo, Remtech and many others



KEY FACTS

Turnover	Over 90 billion euro
Employees	About 300,000
N. companies	About 6,500

Source: GreenER Observatory 2022

SOME BRANDS

AGRI-FOOD



WASTE AND RECLAMATION



BUILDING



RENEWABLE ENERGY AND EFFICIENCY



MECHANICAL ENGINEERING AND MOBILITY



INTEGRATED WATER CYCLE



OTHER



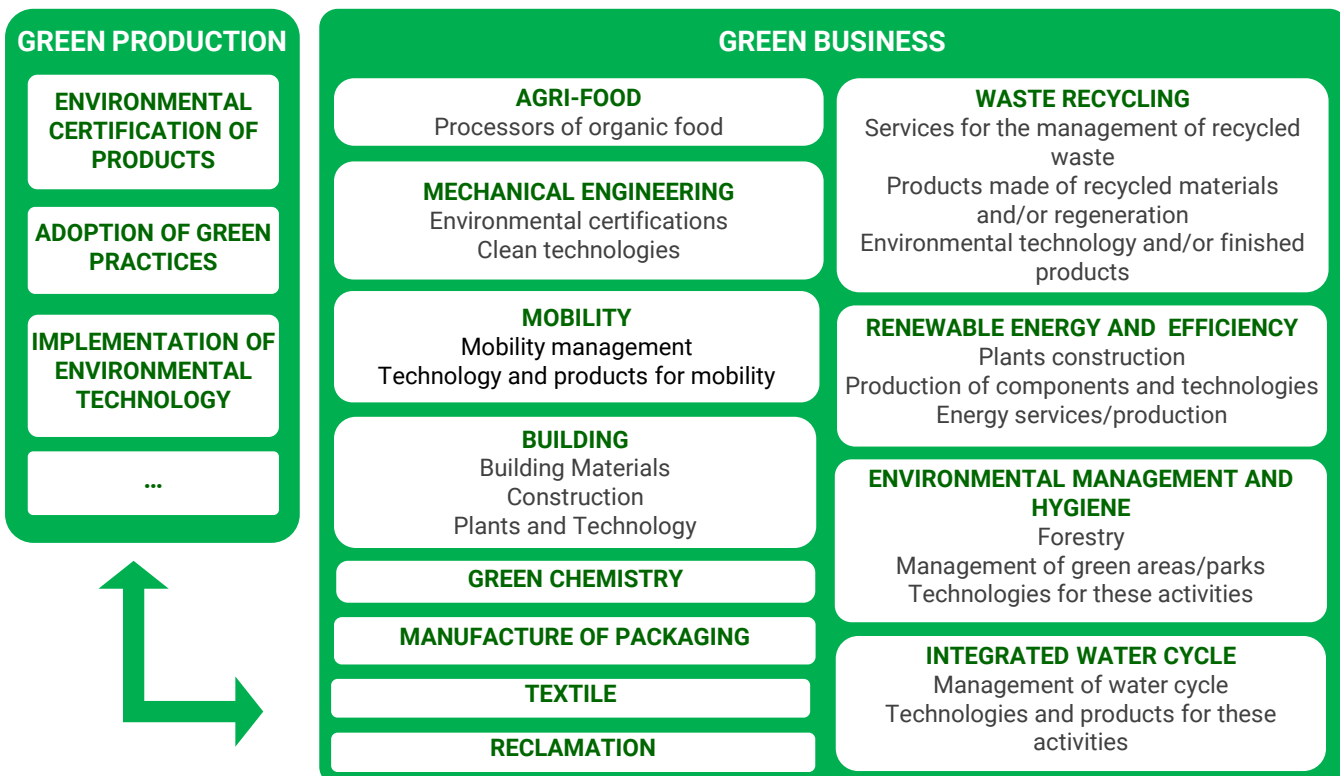
And many others

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SECTORS & VALUE CHAIN

Source: GreenER 2022,
Regional Green Economy Observatory

Companies become part of the green economy universe both for “how they produce” (Green Production), as well as “what they produce” (Green Business). Green Production is mainly recognized through the tool of environmental voluntary certification. In Green Business, we can distinguish between companies which merely operate in environmental markets (waste management, integrated water cycle, sustainable transport, management of natural heritage) and those which are only partially oriented towards green markets (bio-building, organic agro-food products, energy efficiency and renewable energy, environmental technology).



Green Economy in Emilia-Romagna	N. Companies
Agri-food	3.046
Mechanical engineering cluster	501
Waste recycling	449
Renewable energy and efficiency	385
Mobility	369
Environmental management and hygiene	342
Building	337
Integrated water cycle	236
Green chemistry	126
Textile	96
Reclamation	90
Manufacture of packaging	89
Other sectors	About 650
Total	About 6,500

Source:
GreenER
Observatory 2022

Regional Pact for Work and Climate

Emilia-Romagna Region promotes sustainable development, involving economic and social actors. The **Pact for Work and Climate - signed in 2020 by 55 regional stakeholders** - aims to share a single strategy capable of tackling current difficulties by supporting the economy and the society. It is a Pact whose primary aims are generating quality jobs, reducing inequality and taking Emilia-Romagna through environmental transition, thereby helping to achieve the objectives of the 2030 Sustainable Development Agenda, in particular achieving carbon neutrality by 2050 and 100% renewable energy by 2035.

CHALLENGE

Demographic crisis
Climate emergency
Digital transformation
Reduce inequalities

STRATEGIC OBJECTIVES

Knowledge and know-how
Ecologic Transition
Rights and duties
Jobs, Businesses, Opportunities

PROCESSES

Digital transformation
Simplification
Legality
Participation

Other regional policies

- **REGIONAL LAW FOR THE PROMOTION OF INVESTMENTS IN EMILIA-ROMAGNA (LR 14/2014)** and National incentives are strongly related to sustainability. Eligible types of investment include **Energy production from renewable sources**
- The **REGIONAL ENERGY PLAN** sets the strategy and objectives of the Emilia-Romagna Region for climate and energy up to 2030 in terms of strengthening the green economy, energy savings and efficiency, development of renewable energy, interventions on transport, research, innovation and training.
- The **WASTE MANAGEMENT REGIONAL PLAN** led to 73% of separate collection in 2021 and aims to achieve 80% in the period 2022-27.
- The **GREEN PUBLIC PROCUREMENT (GPP) PLAN** led to 1.5 billion euros of green purchases in 2019, applying Minimum Environmental Criteria in 30% of the calls for tender.
- The **REGIONAL S3 SMART SPECIALIZATION STRATEGY 2021-27** identifies and analyses the regional main sectors for the future innovative investments in Emilia-Romagna
- **The regional law 24/2017** aims to strengthen the zero **LAND CONSUMPTION AND URBAN REGENERATION STRATEGY** with a town and city regeneration and resilience plan capable not only of tapping into European resources but also of maximising the building requalification, efficiency and safety incentives on a large scale.

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FOCUS

ECOSISTER

Emilia-Romagna ecosystem

<https://ecosister.it/>



ECOSYSTEM FOR SUSTAINABLE TRANSITION IN EMILIA-ROMAGNA - ECOSISTER is a regional foundation and a Technology Transfer and Innovation Programme worth **110 million euros** - coordinated by the University of Bologna and supported by the NRRP (National Resilience and Recovery Plan) - involving a PPP of 23 participants, aimed to support ecological transition in Emilia-Romagna. The activities are organized in **6 spokes**:

1.

Materials for sustainability and ecological transition

2.

Clean energy production, storage and saving

3.

Green manufacturing for a sustainable economy

4.

Smart mobility, housing and energy solutions

5.

Circular economy and blue economy

6.

Ecological transition based on HPC & data technology

Each Spoke will also coordinate one of the 5 actions of the Technology Transfer and Innovation Programme: Incubation, Acceleration, Technology Transfer, Training and Public Engagement.

GREEN HYDROGEN

Some relevant initiatives

PRODUCTION OF GREEN HYDROGEN. The Region starts the **CONSTRUCTION OF PLANTS IN DISMISSED INDUSTRIAL AREAS**, providing almost 20 million euros to support investments, a sustainable response to new energy needs. First call for proposal published in January 2023. [Link](#)

"H2-MO.RE Interdepartmental Centre for Research and Services in the field of production, storage and use of Hydrogen" - established in 2022 by University of Modena and Reggio Emilia - carries out interdisciplinary studies and research. [Link](#)

MAXI OFFSHORE WIND FARM NEAR RAVENNA – Agnes project managed by Saipem. The hub will combine multiple integrated solutions (offshore wind farm, floating solar photovoltaic and green hydrogen). The electricity produced will cover the needs of more than 500 thousand families. [Link](#)

KIC

Knowledge and Innovation Communities

Emilia-Romagna is directly involved in the **EIT RAW MATERIALS KIC** (eitrawmaterials.eu) on circular economy - with ART-ER, CNR, University of Bologna and University of Ferrara as core partners











The region is also involved in **EIT CLIMATE** on climate change (www.climate-kic.org).



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FAIRS

 ECOMONDO - www.ecomondo.com Material and Energy Recovery and Sustainable Development	Where: Rimini (Rimini Exhibition Centre) Key figures: over 1,400 exhibitors and 600 foreign buyers (2022)
 KEY ENERGY - www.keyenergy.it Sustainable Energy and Mobility	Where: Rimini (Rimini Exhibition Centre) Key figures: over 600 brands and over foreign buyers (2023)
 H2O – ACCADUEO - www.accadueo.com Technologies for the treatment and distribution of drinking water and wastewater treatment	Where: Bologna (Bologna Fair) Key figures: about 7,000 operators (2021)
 REMTECH - www.remtechexpo.com Remediation Technologies (including CHEMTECH on chemical innovation)	Where: Ferrara (Ferrara Expo) Key figures: about 10,000 visitors (2022)
 SEALOGY - www.sealogy.it Blue Economy professionals	Where: Ferrara (Ferrara Expo) Key figures: about participants from over 15 countries (2022)
 HESE - www.hese.it Hydrogen Energy Summit & Expo	Where: Bologna (Bologna Fair) Key figures: over 40 meeting (2022)
 HYDROGEN EXPO - www.hydrogen-expo.it Technological sector for the development of the hydrogen supply chain	Where: Piacenza (Piacenza Expo) Key figures: about 5,000 visitors (2022)
 OMC - www.omic.it Med Energy Conference and Exhibition	Where: Ravenna (Pala De André) Key figures: about 13,000 visitors (2021)

Many other regional fairs have strong connections with the green economy

SANA - www.sana.it International Exhibition of organic and natural products	CIBUS - www.cibus.it International Food Fair	CERSAIE - www.cersaie.it International Exhibition of Ceramic Tile and Bathroom Furnishings
SAIE - www.saiebologna.it International building exhibition	GEOFLUID - www.geofluid.it International event for Drilling & Foundations	RESEARCH TO BUSINESS - www.rdueb.it International Exhibition on Industrial Research

FDI

Some important foreign investors in the Green Economy in Emilia-Romagna - Source: Aida - Bureau Van Dijk, 2022

Companies	Investors	Country of Origin	Type of business
TETRA PAK PACKAGING SOLUTIONS S.P.A.	TETRA LAVAL INTERNATIONAL SA	Switzerland	Repair of machinery for dosage, packaging and packing. Manufacture of containers of paper and paperboard. Certificated ISO 14.001.
MANITOU ITALIA S.R.L.	MANITOU BF	France	Manufacture of lifting and handling equipment. Certificated ISO 14.001.
WIENERBERGER S.P.A.	WIENERBERGER AG	Austria	Manufacture of bricks, tiles and construction products, in baked clay. Certificated ISO 50.001.
E.G. TOYOTA MATERIAL HANDLING S.R.L.	TOYOTA INDUSTRIES CORPORATION	Japan	Forklifts, warehouse trucks and lean services. Certificated ISO 14.001.
BIFFI ITALIA	EMERSON ELECTRIC CO	US	Manufacturing of valve actuators. The company carries out initiatives concerning the green economy.

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INNOVATION ECOSYSTEM

○ HIGH TECHNOLOGY NETWORK

Clust-ER GREEN TECH

CLUST-ER GREENTECH Association of public and private organisations: companies, research centres and training institutions.
ENERGIA E SOSTENIBILITÀ

HIGH TECHNOLOGY NETWORK

Discover industrial research in '[Energy and Sustainability](#)'



AGENCIES AND ASSOCIATIONS

[ART-ER](#) Sustainable development Area

[CISE](#) Centre for Innovation and Economic Development, Forli-Cesena

[ARPAE](#) Regional Agency for Prevention, Environment and Energy of Emilia-Romagna

[AESS](#) Agency for energy and sustainable development

[FONDAZIONE FLAMINIA](#) Center for Innovation

[ENEA](#) Italian National Agency for New Technologies, Energy and Sustainable Economic Development

RESULTS OF THE REGIONAL SMART SPECIALISATION STRATEGY S3 (2014-December 2021)

Low carbon economy

- 369 funded R&D projects,
- 231M€ of total investment with 136M€ of public funds
- 2,660 new researchers

Env. sustainability and ecosystemic services

- 1,440 funded R&D projects
- 511M€ of total investment with 324M€ of public funds
- 1,349 new researchers

○ ECOSISTER

EMILIA-ROMAGNA ECOSYSTEM

A regional foundation focused on sustainable transition. [Link](#)



○ UNIVERSITIES

DEGREE COURSES	University (link)
Civil and environmental engineering	Parma, Modena-Reggio, Ferrara and Bologna
Natural and environmental science	Modena-Reggio Parma and Bologna Ravenna
Chemistry and Technologies for the Environment and Materials	Rimini
Sciences and Technologies for Green and Landscape	Imola
MASTER	University (link)
Renewables And Environmental Sustainability - Res	Piacenza
Economy, public policies and sustainability	Modena-Reggio
Sciences and technologies for the environment and resources	Parma
Geological sciences applied to environmental sustainability	Parma
Resource Economics and Sustainable Development	Rimini
Electrical energy engineering	Bologna
Offshore engineering	Ravenna
Bioeconomy in the Circular Economy (BIOCIRCE)	Bologna
Management and conservation of environment and fauna	Parma

○ HIGHER TECHNICAL INSTITUTES

ITS FOUNDATION (Higher Technical Institutes)

[TERRITORY, ENERGY, BUILDING](#)

[SUSTAINABLE MOBILITY, LOGISTICS AND MOBILITY OF PEOPLE AND GOODS](#)

○ INTERNATIONAL TALENTS IN ER

Click for more info on [GREEN ECONOMY FOR INTERNATIONAL TALENTS](#)

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