



This factsheet gives an overview of the Italian bioeconomy innovation technology system. It includes the key government interventions, research initiatives, networks and finance instruments, in Italy.

Bioenergy and Biofuels

Italy was the first country in Europe to mandate the use of advanced biofuels at national level from 2018 onwards (10th October 2014). The **Biofuels decree** (March 31st No. 55/2011) also provides increasing quotas for biofuels in road transport from 2015 onwards.

For renewable energy and efficiency, the **RES Promotion law** (3rd March No.28/2011) introduced several measures to address EU Directive 2009/28/EC, including support for biomass heating systems, pellet stoves and boilers. Later, the **Renewable Electricity Decree 2012 (DM 06/07/2012)**, markedly affected the bio-energy market with higher incentives for heat and by-products valorisation.

Incentives:

- For renewable electricity production there are **Green Certificates**, or a **Feed-in-tariff system** (DM 18 December 2008)
- **DM 5th December 2013** supports incentives for bio-methane injection into the network
- **Energy Efficiency Credits** (TEE) support energy efficiency in small plants, and thermal energy from renewable sources (including biomass boilers) under the **Income Thermal Decree** (under No. 28/2011)

Bioeconomy Governance

The key **governing bodies** are:

- Ministry for the Environment, Land and Sea
- Ministry of Economic Development (**MISE**)
- Ministry of Agriculture of Food and Forestry Policies
- A Round Table for "Biomass, Biofuels and bioliquids, Biogas and biomethane and green chemistry of the sectoral board for bioenergy



MINISTERO DELL'AMBIENTE
E DELLA TUTELA DEL TERRITORIO E DEL MARE

Bioeconomy Strategies

There is no specific bioeconomy strategy, but a number of policies are making an impact in this sector:



- The **National Budget Law** (2007) from 2011, and the **National Environmental Law** from 2012, ruled that carrier bags had to be either biodegradable and compostable or reusable, which has led to an increase in demand for bio-plastics.
- The **Biorefinery Decree 2013** (n. 139/2013), introduced simplified authorisation procedures for second and third generation biorefineries.
- To prevent waste generation and increase material and energy recovery from waste, the **National Environmental decree** guides nation waste management systems.
- **Vision Documents**, are annual strategies from SUSCHEM Italy outlining how chemical and biotechnology industries can address societal needs.



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Research & Technology Funding

The main funding body responsible for bioeconomy R&D is the **National Research Council (CNR)**.



To exploit the research funded by CNR, an initiative was set up by MISE - The Technology Transfer and Integration of Biotechnology for Health, Food and Environment (**BioTTasa**), to support creation of spin-offs and Italian biotech companies.

In addition, the **Growth law** (Decree Growth 2.0) includes measures to facilitate business start-up solutions, designed to allow more practicable management of corporate law and labour law, easier access to investment channels, and specific tax incentives for investors in the capital.

Finance

Despite the lack of dedicated incentives to the biotech industry, Italy boasts the third-largest number of biotechnology companies and has the highest rate of growth in pure biotechnology. General financial options are accessible through:

- **IBAN** - Italian Business Angel Network
- **AIFI** - Italian Private Equity and Venture Capital Association
- **Invitalia** - reference point for advice on investing in Italy
- **Foundations of banking** – For formation of networks, partnerships, and science communication

Climate Change Policy

The **National plan for the reduction of greenhouse gas emissions** and the **National Energy Strategy (SEN) 2013** are the cornerstones of Italy's decarbonisation plans.



Strategia Energetica Nazionale: per un'energia più competitiva e sostenibile

The Italian Government views energy efficiency as the most economical tool for the removal of CO₂ emissions, with a positive return on investment for the country. With this in mind, the **Italian Action Plan for Energy Efficiency 2014**, sets energy efficiency targets for 2020 and related policy measures.

In 2014, Italy met the obligations of the **EU's Energy Efficiency Directive** (2012/27/EU), including adequate measures for efficient district heating and cooling infrastructure to be developed and/or to accommodate the development of high-efficiency cogeneration and the use of heating and cooling from waste heat and renewable energy sources.



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Networks

The Italian Minister of Economic Development has set up different working groups, including three **National Technology Clusters** that focus on biotechnologies and biobased economy, in:

- **Advanced Life Sciences in Italy - ALISEI**
- **National Agro-food - CL.A.N**
- **Green Chemistry - SPRING**



Networks and associations are also active, including:

- **Green Chemistry bionet** - promotes and develops the research, application and dissemination of full lifecycles of biobased products.
- The **Italian Agricultural and Applied Economics (AIEAA)** aims to stimulate research and scientific debate on the bioeconomy in a multidisciplinary context.
- **Assobiotec** - the Italian biotechnology companies' association.
- **Network CR 2050** aims to match-make between the industrial and agricultural in the bio based economy.



Biohorizons

The Biohorizons project and survey focused on consulting stakeholders across the bioeconomy, to identify areas for growth, opportunity, and barriers to innovation.



Biohorizons Project:

<http://www.climate-kic.org/projects/biohorizons/>

LinkedIn: <http://linkd.in/1dPjX7R>



This factsheet was produced by Biohorizons partners

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