

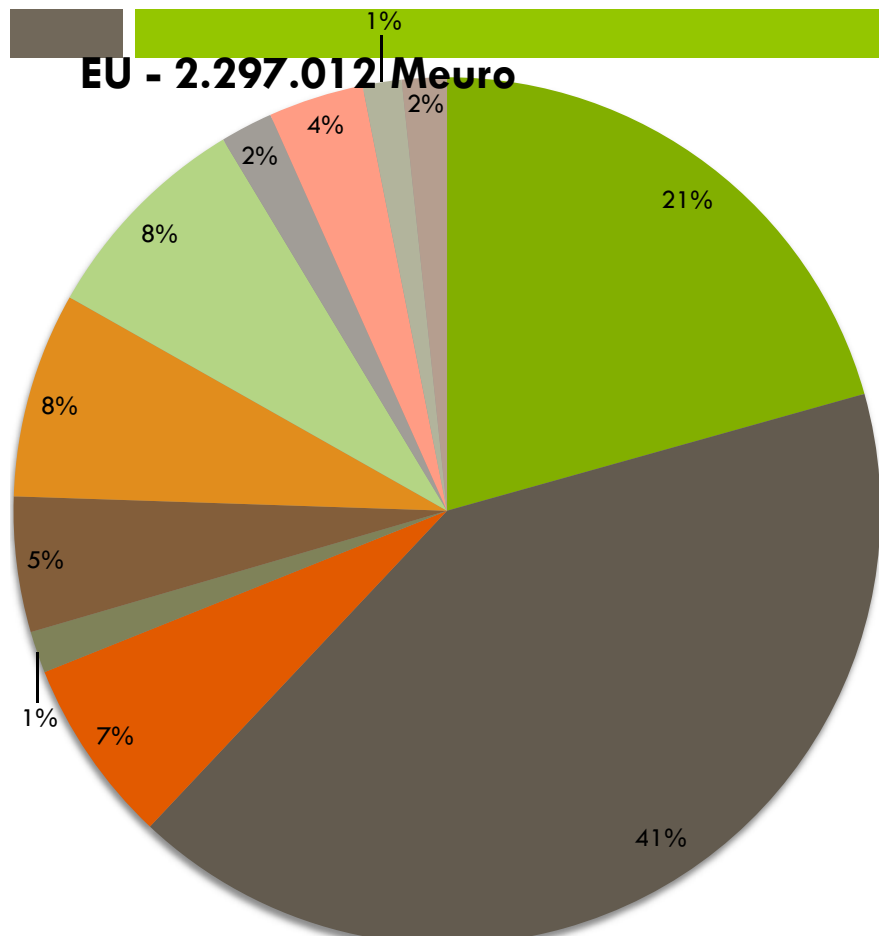


THE ITALIAN BIOECONOMY STRATEGY (BIT): OBJECTIVES, PRIORITIES AND ROADMAP

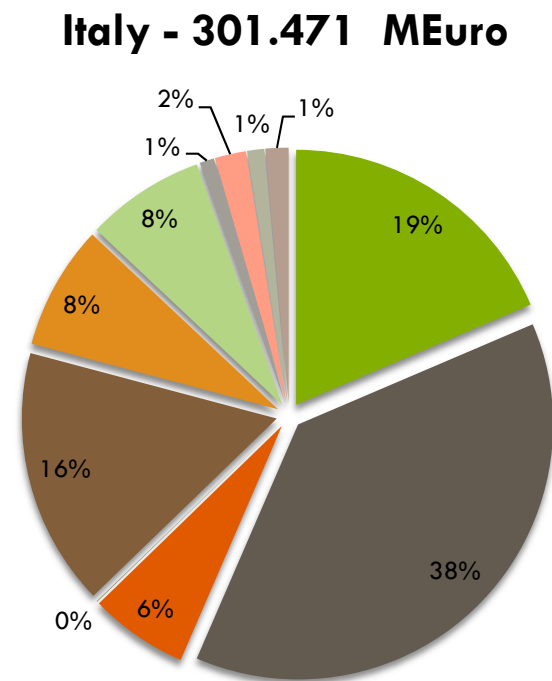
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Some numbers (2016)



- Agriculture, Forestry and Fisheries
- Beverage industry
- Biotextiles and clothing
- Pulp and paper
- Biobased Pharmaceutical
- Bioenergy



- Food Industry
- Tobacco Industry
- Wood-based industry
- Biobased Chemistry
- Bioplastics

The Italian Bioeconomy strategy

BIT Bioeconomy in Italy



A unique opportunity to reconnect
ECONOMY, SOCIETY
and the **ENVIRONMENT**

Promoted by Italian Presidency of Council of Ministers and endorsed by:

- Ministry Economical Development;
- Ministry Agriculture, Food, Forestry;
- Ministry Education, University, Research;
- Ministry Environment, Land, Sea;
- Ministry for territorial cohesion;
- Committee Productive Activities, Regions Conference;
- Agency for Territorial Cohesion;
- IT Technology Clusters Green Chemistry, AgriFood *and BlueGrowth*.

Sinergies



- AT EU LEVEL

- AT NATIONAL LEVEL

- Smart Specialization Strategy
- Green Public Procurement NP (2013)
- NP on Wastes (2016)
- Energy Strategy
- Marine strategy
- Research and Innovation NP
- Strategic plan on R&I for the agricultural sector
- Industry 4.0
- Forest NP

Identification of main challenges and opportunities

- Agriculture: fragility of agricultural systems, training, water scarcity
- Forests: abandonment and impoverishment of biodiversity
- Agri-food industry: small size, poor waste recovery, high energy and water consumption
- Biobased industry: scarce availability of raw materials, regulatory uncertainty, lack of standardization
- Sea: unsustainable fishing, pollution, urbanization of the coasts

The Italian Bioeconomy strategy: the vision

This BIT aims to provide a shared vision of the economic, social and environmental opportunities and challenges based on longer, more sustainable and locally routed value chains.

1. ***TO MOVE “from sectors to systems”***
2. ***TO CREATE “value from local biodiversity and circularity”***
3. ***TO MOVE FROM “economy to sustainable economy”.***
4. ***TO MOVE “from concept to reality”***
5. ***TO PROMOTE “bioeconomy in the Mediterranean area”***

Objective: Sustainable increase Italian Bioeconomy turnover and jobs by 20% by 2030.

The Italian Bioeconomy strategy: main objective and priorities

- a) **Improve sustainably the productivity and quality of products** of each of the sectors and more efficiently **interconnect** them, by creating longer and more **locally routed value chains**, where the actions of public and private stakeholders integrate across all major sectors;
- b) Exploit national terrestrial/marine **biodiversity, ecosystem services and circularity**, and regenerate abandoned/marginal lands and former industrial sites;
- c) Contribute to the **growth of bioeconomy in the Mediterranean area** via PRIMA and BLUEMED initiatives, for a greener and more productive region, a wider social cohesion and political stability in the area;
- d) Create: i) a wider and more **coherent political commitment**, ii) more investments in **R&I**, spin off/start up, education, training, communication, iii) a better **coordination** between regional, national and EU stakeholders/policies, iv) a better engagement of a **public dialogue**, and v) tailored market development actions.

R & I priorities

- **Priority: Sustainable agriculture and forestry**
 - Improve resource management and efficiency
 - Improve multiple functions and benefits of land, rural and abandoned areas
 - Improve human and social capital and social innovation through
 - Contribute to improving the primary production in the Mediterranean area
- **Priority: A sustainable and competitive agri-food sector for a safe and healthy diet**
 - Improve healthy diets and people's health
 - Improve food safety, security, defense, and integrity Boost sustainable, competitive, and innovative food manufacture
 - Boost food policies, supply chains, markets, and communities
 - Contribute to improving food production and safety in the Mediterranean basin
- **Priority: Bio-based industries**
 - Boost production of biobased products and biofuels in the framework of a circular economy
 - Foster 'Demonstration plants/test beds for cascading use of biomasses'
 - Contribute to boosting a Mediterranean biobased Industry
- **Priority. Aquatic living resources and marine and maritime bioeconomy**
 - Boost sustainable exploiting of marine resources
 - Protect and valorize marine environment through
 - Contribute to boosting a MED marine bioeconomy

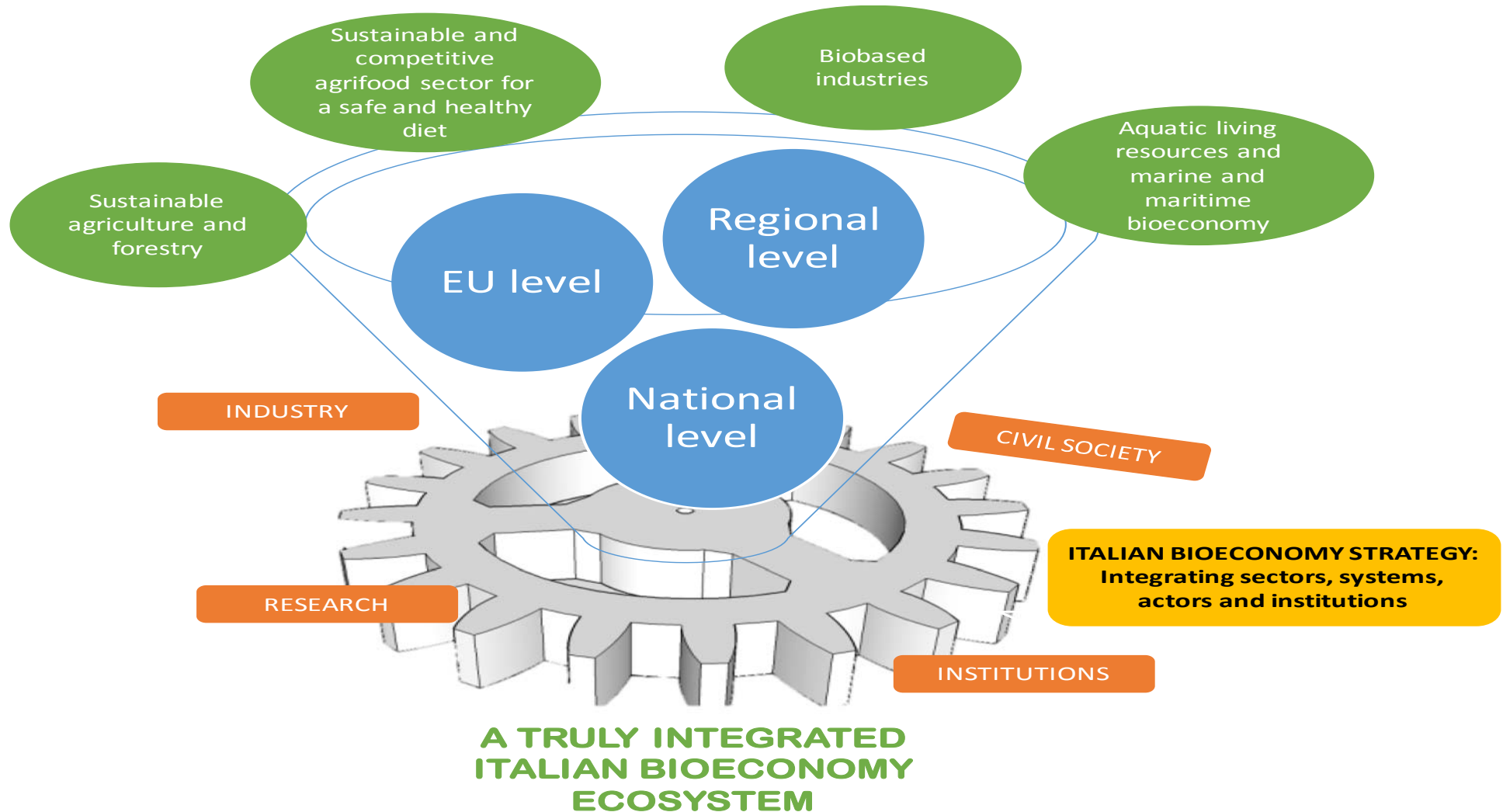
Accompanying measures

- ❑ Boost **demand-side innovation policy tools** such as standardization, labeling, and public procurement;
- ❑ Boost demand for bioeconomy products and services and **create a bioeconomy marketplace**, to match demand and supply of biomass, technology, and services;
- ❑ Promote **education and professional training** for bioeconomy specialists, also in partnership with private actors and industrial players;
- ❑ Support **corporate social responsibility** proposing a methodological framework for enterprises to highlight the bio-based content and features of bioeconomy processes and products.

Monitoring and evaluation

key performance indicators at national and regional level									
criteria									
i n d i c a t o r s	biomass availability		Productive structure	Employment structure	Human capacity	Innovation	Investment	Demographics	Markets
	agricultural biomass production [kg/capita]	import of agricultural biomass	Firms in total bioeconomy sectors [% of total firms]	Employment in total bioeconomy sectors [% of total employment]	Tertiary education [% of total population]	IPRs (patent, trademark, design) applications in total bioeconomy sectors [number of application per 1000 employees]	private R&D expenditure [index (EU=1)]	Population growth [% year]	Exports of total bioeconomy sectors related goods [% of total exports]
	blue biomass production [kg/capita]	import of blue biomass	Firms in bioeconomy subsectors [% of total firms]	Employment in bioeconomy subsectors [% of total employment]	R&D employment in total bioeconomy sectors [% of total employment]	IPRs (patent, trademark, design) applications in bioeconomy subsectors [number of application per 1000 employee]	public R&D expenditure [index (EU=1)]	Population 15-65 years [% of total population]	Exports of bioeconomy subsectors related goods [% of total exports]
	forestry biomass production [kg/capita]	import of forestry biomass	innovative start up in total bioeconomy sectors [% of total innovative start up]		R&D employment in bioeconomy subsectors [% of total employment]			GDP (PPP) [index (EU=1)]	Imports of total bioeconomy sectors related goods [% of total exports]
	waste biomass production [kg/capita]	import of waste biomass	innovative start up in bioeconomy subsectors [% of total innovative start up]		University courses in bioeconomy sectors [% of total university courses]				Imports of bioeconomy subsectors related goods [% of total exports]
				Research Institute in bioeconomy sectors [% of total Research Institutes]					

A synthetic view





Thank you for your attention!

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