

## Public consultation on the adoption of a bioeconomy Strategy for Italy

*The Strategy is promoted by the Italian Presidency of Council of Ministers. Involved in its development and implementation are: the i) Ministry for the Economical Development (co-coordinator), ii) Ministry of Agriculture, Food and Forestry, iii) Ministry of Education, University and Research, iv) Ministry of the Environment, Land and Sea, v) the Committee of Bioeconomy of Italian Regions, vi) Agency for Territorial Cohesion, and VI) the Italian Technology Clusters for Green Chemistry (SPRING) and AgriFood (CLAN).*

The consultation aims to allow citizens and public and private stakeholders to examine the Italian bioeconomy Strategy and submit their inputs, including new and additional elements.

### **Concept**

*Italian Bioeconomy means to encompass the sustainable production of renewable biological resources and the conversion of these resources and waste streams into value added products such as food, feed, bio-based products and bioenergy.*

*The Strategy aims to provide a shared vision of the economic, social, environmental and international cooperation opportunities and challenges associated with the implementation of an Italian bioeconomy routed on the territory.*

*It will be part of the implementation processes of the National Smart Specialisation Strategy and in particular of its thematic areas “health, food and life quality” and “sustainable and smart industry, energy and environment” and in synergy with the Italian National Strategy for the Sustainable Development and its principles for ensuring environmental sustainability and economic growth reconciliation.*

### **Priorities**

*To move “from sectors to systems”,*

*To create “value from local biodiversity and circularity”*

*To move from “economy to sustainable economy”*

*To move “from concept to reality”*

*To promote Bioeconomy in the Mediterranean area*

### **Objective**

*To increase our current Italian bioeconomy output (of about EUR 250 billion/y) and jobs (about 1,7 million) by 20% by 2030.*

To facilitate the processing and analysis of consultation results, you find hereafter a Questionnaire for addressing your comments and observations.

Contributions can be sent by e-mail, specifying the topic, within 23<sup>rd</sup> December 2016, at:

[consultazione.bioeconomia@agenziacoesione.gov.it](mailto:consultazione.bioeconomia@agenziacoesione.gov.it)

The official language of the Strategy is English; a courtesy translation in Italian language is also provided. Any proposals for amendments to the Strategy text shall be given in English in order to allow maximum effectiveness of the sent contributions.

Comments and observations can be transmitted in both Italian and English languages.

All contributions received will be published at the end of the consultation, unless be specifically requested not to disclose them.

The default generic confidentiality warning of the e-mail content, in the bottom of the same, will not be considered a request not to disclose your inputs.

## Consultation Questionnaire on Italian Bioeconomy Strategy

1. You are answering as:

- an individual
- on behalf of an organisation or an institution (please specify the name of organisation/institution)

2. Do you deem the following problems and opportunities relevant for the development of bioeconomy sectors ?

*Please rank in order of importance (1 extremely important, 5 least important)*

AGRICULTURE	Rank (1–5)
<b>Problems</b>	
• Limited profitability due to low average size of farms;	
• Land abandoning in less favored areas due to difficult living conditions;	
• Depletion of soil organic matter and water scarcity	
• Soil and watershed pollution	
• Reduction of the land surfaces devoted to agricultural use	
• Impact of climate change on the agricultural system	
• Biological and chemical contaminants in agricultural products	
• Alien pests/plants	
<b>Other</b>	
•	
<b>Opportunities</b>	
• Diversification of rural incomes, reducing vulnerability deriving by price volatility	
• Add value to local products for the development of sustainable agriculture and local foods	
• Discovering, protecting and valuing local biodiversity agricultural ecosystem services and reduction of land deterioration;	
• Valorization and reuse of agricultural residues for the production of bioproducts and bioenergy;	
• Young and skilled farmers entering in the sector thanks to new incomes opportunities	
• Production of native biomass, resilient industrial crops/short rotation forest species (willow etc) in abandoned and marginal lands	
• Boosting the share and productivity of organic farming and livestock.	
• Agricultural management for food/feed safety	
• Adaptation measures to climate change (e.g. less water/fertiliser demanding crops, use of local varieties, medium- to long-term planning).	
<b>Other</b>	
•	

<b>FOOD INDUSTRY</b>	<b>Rank (1–5)</b>
<b>Problems</b>	
<ul style="list-style-type: none"> <li>• <b>Strong products counterfeiting and imitations;</b></li> </ul>	
<ul style="list-style-type: none"> <li>• <b>Biological and chemical contaminants along food processing</b></li> </ul>	
<ul style="list-style-type: none"> <li>• <b>Low efficiency of food making chain with high production of byproducts/waste</b></li> </ul>	
<ul style="list-style-type: none"> <li>• <b>Lack of advanced technological microbial starters for fermented products</b></li> </ul>	
<ul style="list-style-type: none"> <li>• <b>Under exploitation of by-products and production residues due to not proper terms and conditions set by national legislation for the qualification and management of by-products not in line with harmonized EU rules</b></li> </ul>	
<b>Other</b>	
<ul style="list-style-type: none"> <li>•</li> </ul>	
<b>Opportunities</b>	
<ul style="list-style-type: none"> <li>• <b>Valorization and increasing of “typical/quality” foods (DOP, IGP,STG, etc.);</b></li> </ul>	
<ul style="list-style-type: none"> <li>• <b>Production of ingredients from local food industry byproducts</b></li> </ul>	
<ul style="list-style-type: none"> <li>• <b>Extensive production of waste to be exploited in biorefining pathways as well as for composting, the latter also contributing to halt the depletion of soil organic matter</b></li> </ul>	
<ul style="list-style-type: none"> <li>• <b>Proper adoption of circular economy directives for the valorization of by product</b></li> </ul>	
<ul style="list-style-type: none"> <li>• <b>Innovative and rapid detection methods for food/feed contaminants during storage and processing</b></li> </ul>	
<ul style="list-style-type: none"> <li>• <b>Adoption of rules consistent with the development of circular economy according to the EU framework for the valorization of by product</b></li> </ul>	
<b>Other</b>	
<ul style="list-style-type: none"> <li>•</li> </ul>	

<b>FOREST AND WOOD PROCESSING</b>	<b>Rank (1–5)</b>
<b>Problems</b>	
<ul style="list-style-type: none"> <li>• <b>Abandonment of historically managed forests with possible biodiversity depletion and ecosystem degradation;</b></li> </ul>	
<ul style="list-style-type: none"> <li>• <b>National wood processing industry based on imported raw material products of medium- to low-added value</b></li> </ul>	
<ul style="list-style-type: none"> <li>• <b>Limited management strategies, genetic improvement and valorization of autochthonous forestry production</b></li> </ul>	
<ul style="list-style-type: none"> <li>• <b>Impact of climate change on forests</b></li> </ul>	
<b>Other</b>	
<ul style="list-style-type: none"> <li>•</li> </ul>	
<b>Opportunities</b>	
<ul style="list-style-type: none"> <li>• <b>Multipurpose forest management to maintain/enhance production, maintain/improve forest biodiversity and ecosystem services</b></li> </ul>	
<ul style="list-style-type: none"> <li>• <b>Improve forest biodiversity conservation and ecosystem services;</b></li> </ul>	
<ul style="list-style-type: none"> <li>• <b>Exploitation of valuable and eco-labelled national raw material in national biorefineries</b></li> </ul>	
<ul style="list-style-type: none"> <li>• <b>Development and production of high value new wood products, wood-based materials and composites.</b></li> </ul>	
<ul style="list-style-type: none"> <li>• <b>Increase the surface of forests managed according to the Sustainable Forest Management schemes Endorse the creation of local value chain from forests and services to raw material transformation and secondary/tertiary products</b></li> </ul>	
<b>Other</b>	
<ul style="list-style-type: none"> <li>•</li> </ul>	

<b>BIO-BASED INDUSTRY</b>	<b>Rank (1–5)</b>
<b>Problems</b>	
<ul style="list-style-type: none"> <li>Limited national availability of low costly biomass</li> </ul>	
<ul style="list-style-type: none"> <li>Limited market for national biobased products</li> </ul>	
<ul style="list-style-type: none"> <li>Huge and risky investments needed for research and the build up of industrial flagship investment and infrastructure of bioeconomy</li> </ul>	
<ul style="list-style-type: none"> <li>Spread of products that doesn't comply to international standards and labelling on biobased and biodegradable products</li> </ul>	
<b>Other</b>	
<ul style="list-style-type: none"> <li></li> </ul>	
<b>Opportunities</b>	
<ul style="list-style-type: none"> <li>Availability of former oil refineries/industrial sites that can be converted into biorefineries</li> </ul>	
<ul style="list-style-type: none"> <li>Availability of a good collection system for organic waste (to be improved by setting specific targets) and of large amount of national biowaste (Food industry: 15 MT/y; agriculture residues: 10 MT/y livestock effluents; 150 MT/y; Sludge: 3 MT/y, Municipal organic fraction: 12 MT/y)</li> </ul>	
<ul style="list-style-type: none"> <li>Availability of abandoned/marginal lands for the production of industrial biomass and bioenergy</li> </ul>	
<ul style="list-style-type: none"> <li>Availability of positive case studies on biobased products developed in Italy (i.e. shopping bags example) and price premiums for environmental sustainable products (Made green in Italy)</li> </ul>	
<b>Other</b>	
<ul style="list-style-type: none"> <li></li> </ul>	

<b>MARINE BIOECONOMY</b>	<b>Rank (1–5)</b>
<b>Problems</b>	
<ul style="list-style-type: none"> <li>Unsustainable fishery and adverse environmental impacts of marine aquaculture;</li> </ul>	
<ul style="list-style-type: none"> <li>Underexploitation of aquaculture opportunities</li> </ul>	
<ul style="list-style-type: none"> <li>Sea pollution (chemical pollutants, litter, etc) and invasive species</li> </ul>	
<ul style="list-style-type: none"> <li>Increasing import of fish from areas with low environmental regulation and monitoring</li> </ul>	
<ul style="list-style-type: none"> <li>Lack of innovative solutions to replace the use of fish oil and/or feeds of fish origin in the feeding strategies of farmed marine fishes</li> </ul>	
<b>Other</b>	
<ul style="list-style-type: none"> <li></li> </ul>	
<b>Opportunities</b>	
<ul style="list-style-type: none"> <li>Boost environmental safe marine aquaculture (also off shore)</li> </ul>	
<ul style="list-style-type: none"> <li>Development of aquaculture supply chains at local level.</li> </ul>	
<ul style="list-style-type: none"> <li>Exploitation of marine biological resources and fishery/aquaculture processing waste in biorefinery</li> </ul>	
<ul style="list-style-type: none"> <li>Sustainable exploitation of deep sea biosystems and land/sea nexus</li> </ul>	
<ul style="list-style-type: none"> <li>Boosting programmes of fish genetic improvement with new breeding goals while preserving diversity</li> </ul>	
<b>Other</b>	
<ul style="list-style-type: none"> <li></li> </ul>	

<b>EURO-MED ECONOMIC COOPERATION</b>	<b>Rank (1–5)</b>
<b>Problems</b>	
<ul style="list-style-type: none"> <li>• <b>Weak cooperation among European Member States of the Mediterranean basins</b></li> </ul>	
<ul style="list-style-type: none"> <li>• <b>Growing migratory flows toward Europe</b></li> </ul>	
<ul style="list-style-type: none"> <li>• <b>Lack of integration of knowledge and efforts across sectors and countries</b></li> </ul>	
<ul style="list-style-type: none"> <li>• <b>Climate context and demographic trends are strongly increasing the pressures on the capabilities of the societies to provide affordable food, good quality water and to ensure healthy seas</b></li> </ul>	
<b>Other</b>	
•	
<b>Opportunities</b>	
<ul style="list-style-type: none"> <li>• <b>Large availability of biomass, also by-products and waste streams, from local agriculture, livestock production and food industry in Mediterranean countries</b></li> </ul>	
<ul style="list-style-type: none"> <li>• <b>Cooperation in the context of the PRIMA Initiative and BLUEMED Initiative</b></li> </ul>	
<ul style="list-style-type: none"> <li>• <b>Creating the conditions to ensure the adoption of knowledge and innovations across countries</b></li> </ul>	
<ul style="list-style-type: none"> <li>• <b>Improving the sharing and joint exploitation of existing data, knowledge, capacities, project results</b></li> </ul>	
<ul style="list-style-type: none"> <li>• <b>Advocacy for enhancing public understanding of the value of the blue economy in the Mediterranean</b></li> </ul>	
<ul style="list-style-type: none"> <li>• <b>Cooperation projects in No-European Mediterranean countries, for investments in agrifood sector, territorial regeneration, contrast to desertification, also in the frame of Migration compact and EU strategy for external action on migration</b></li> </ul>	
<b>Other</b>	
•	

3. Which are the objectives that bioeconomy can help to achieve?

*Please rank in order of importance (1 extremely important, 5 least important)*

<b>Objectives</b>	<b>Rank (1–5)</b>
Ensuring food security	
Managing natural resources sustainably	
Reducing dependence on non-renewable resources	
Coping with climate change	
Enhancing economic growth and high skilled jobs	

4. Is there any other objective that bioeconomy strategy should consider?

5. Which data and information do you deem relevant for society participation? Is the indicators set, as defined in Chapter 7, complete and exhaustive? Any suggestion?

6. Which are the actions necessary to better engage society and foster social innovation in the bioeconomy?

	Rank (1–5)
Provide actions related to communication and dissemination of information on bioeconomy	
Create discussion platforms with the wider public and civil society	
Improve information on bio-based products for consumers	
Provide incentives for consumers to buy sustainable bio-based products	
Fund research on consumer behavior	
Promote social innovation in the agri-food chain such as local delivery of food, etc.	
Enhance actions to encourage healthier, sustainable consumption	
Enhance actions to reduce food waste in households and the food service industries	

7. Other (please specify)

*Thank you for your participation!*