

Adult education in Italy

The way forward

Technical specifications document

This document presents findings on opportunities for advancement in the bioeconomy sector in Italy, highlighting the needs for skills, existing education, gaps and needs in promoting education. It also includes 3 relevant case studies collected from the country.



Opportunities for Advancement

Smart Agriculture & Food Industry

Utilization of rich biodiversity and agricultural ecosystem services; adaption of local crops/varieties available regionally to climate change and low-input cultivations; utilization of the innovative precision-farming and breeding techniques, enabled by available digital services; adoption of new business models for the diversification of rural incomes; valorisation of the underexploited agricultural, forestry and breeding residues and side streams with the production of food ingredients and valuable bio-based chemicals, fertilizers and energy.

Smart Food Industry

Food by-products to be used for the production of food ingredients, as well as of agri-food waste to be exploited for the integrated production of bio-based chemicals, materials, energy, fertilizers and compost; implementation of New Urban Food Systems – local food production and distribution of fresh and nutritional value products, which create new business opportunities.

Marine Bioeconomy

Utilization of environmentally safe practices for marine aquaculture and robust aquaculture supply chains.

Bio-based Industry

Adaption of new regenerative processes for cleaning polluted areas and engineering measures for the reconversion of abandoned industrial and urban sites; conversion of former oil refineries/industrial sites into biorefineries; adaption of new emerging technologies for capturing and converting CO2 into fertilizers, chemicals and polymers.

Eco Tourism

Use of new emerging business models for connecting tourism to ecosystem valorisation; utilization of the country's unique landscape and cultural heritage as the resource of local communities according to sustainable and integrated schemes.

Needs for Skills

On educational/academic level

Improvement of the bioeconomy and circular economy education giving the students more opportunities to learn about the bio-based industry sector; improvement of the methodologies for bioeconomy and circular economy education to support soft skills (communication skills, teamwork, entrepreneurship, innovation mindset, etc).

On private sector level

7,7% of the working population in Italy are employed in the bioeconomy sectors and identification of the main professional roles in the field of bioeconomy and circular economy are thus needed; implementation of in-house training, micro credentials and work-based learning; further exploitation of the developed digital background.

On governmental level

Promotion of public dialogues to increase understanding of bioeconomy.

- There is a dedicated governmental Italian Bioeconomy Strategy (BIT) from 2017 which was updated in 2019 (BIT II) – the whole frame has a dedicated multi-ministerial governance, orchestrated by the Ministry of Education.

Existing Education

Higher education:

Many circular economy programmes and massive online open courses are offered by Italian higher education institutions:

- BIOCIRCE Master Program is an interdisciplinary program jointly offered by 4 Universities by 4 non-academic partners and 2 Italian Technological Cluster;
- Italian education in bioeconomy is characterized by the presence of multiple institutional players at national and regional levels, in addition to the relevant role of the social partners;
- Italy can become a pioneer in European scale in matters of Bioeconomy and/or art thanks to the existing affinity and interaction among the related institutions.



Vocational training:

Many existing life-long learning and vocational training opportunities.

Gaps & Needs in Promoting Education

On educational/academic level

The need to balance theory and practice and avoid excessive theory; lack of multidisciplinary/interdisciplinary programmes.

On training level

Lack of accessible, flexible and free online training courses, which are tailor-made and focused on the needs of the target groups; provision of soft skills, especially, entrepreneurial skills and transversal skills, such as self-confidence, self-awareness, time management, prioritization, communication skills, and skills connected to running/or being a part of a business; the need to set up a unified certification scheme valid through EU for VET and LLL; enhance coordination of policies/governance mechanisms across ET in different bioeconomy sectors.

On governmental level

The Italian government launched the Italian Bioeconomy Strategy in 2017 and updated it in 2019 – however, there are no data on the level of implementation of this strategy; bioeconomy is not fully aligned with the socioeconomic priorities of the country; lack of a concrete national plan aiming to identify and then to integrate the marginalized groups.

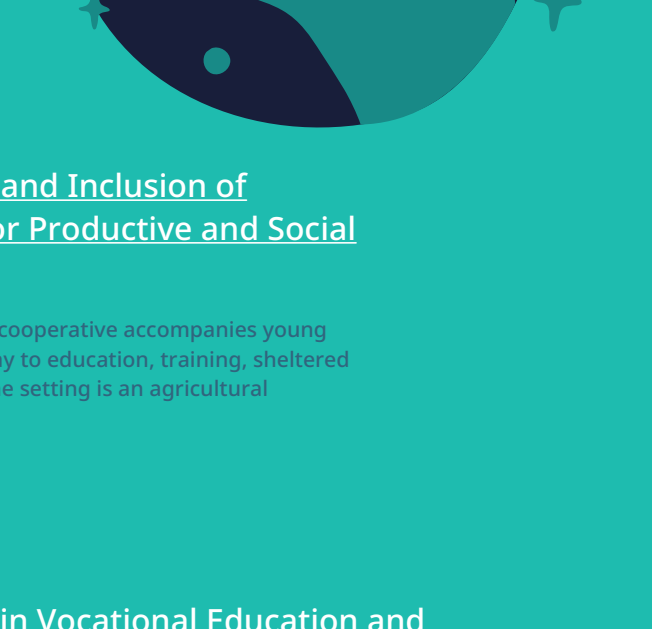
On private sector level

Although the agriculture is the largest bioeconomy sector in terms of value added at factor cost and employment is agriculture, with 45% of people being employed in this sector, there is a lack of an organizational umbrella and the activities and priorities are fragmented.

On societal level

Increasing of the emigration waves will enhance the issue of managing and educating the marginalized groups; a potential brain-drain due to the lack of motivation.

3 Case Studies



Case Study 1

Bioeconomy education, training and retraining and Inclusion of marginalised groups | COPAPS – Cooperative for Productive and Social Activities /Emilia-Romagna, Italy

Purpose: Integrating people in need. This agricultural and social cooperative accompanies young people with mental disabilities and vulnerable people on their way to education, training, sheltered workshops, and employment inside and outside the company. The setting is an agricultural environment with an emphasis on sustainability.

Case Study 2

Bioeconomy education, training and retraining in Vocational Education and Training (VET) | The Higher Technical Institutes (ITS) /All Italian regions

Purpose: ITSs are new schools with a high technological specialisation that create two-year post-diploma courses as an alternative to the university. The purpose is to train higher technicians to enter the strategic sectors of the economic-productive system. 40% of the total number of course hours are dedicated to internships in companies.

Case Study 3

Using art to address different learning styles and facilitate the inclusion of marginalised people /Apulia, Italy

Purpose: Addressing the phenomenon of young NEETs. Over 2 million young people in Italy, aged 15-29, are not engaged in study, work or training. "Link" is a project promoted by the Department for Youth Policies and the Universal Civil Service in collaboration with ANCI. It is financed in the context of a public call for the Italian municipalities wanting to develop innovative projects and actions. The Link Cultural Association was founded by a group of young people eager to encourage openness to other cultural contexts, solidarity and active citizenship. Under the management of the Link Cultural Association, the Agorateca community library was established and training activities were implemented with a strong focus on sustainability and inclusion.