



Project funded by the **EUROPEAN UNION**



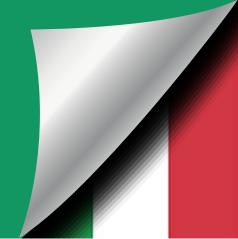
REGIONE AUTÒNOMA DE SARDIGNA REGIONE AUTONOMA DELLA SARDEGNA



Mediterranean Youth, NEETs and women advancing Skills, Employment and Awareness in the blue and green economy

Country Territorial Analysis

ITALY



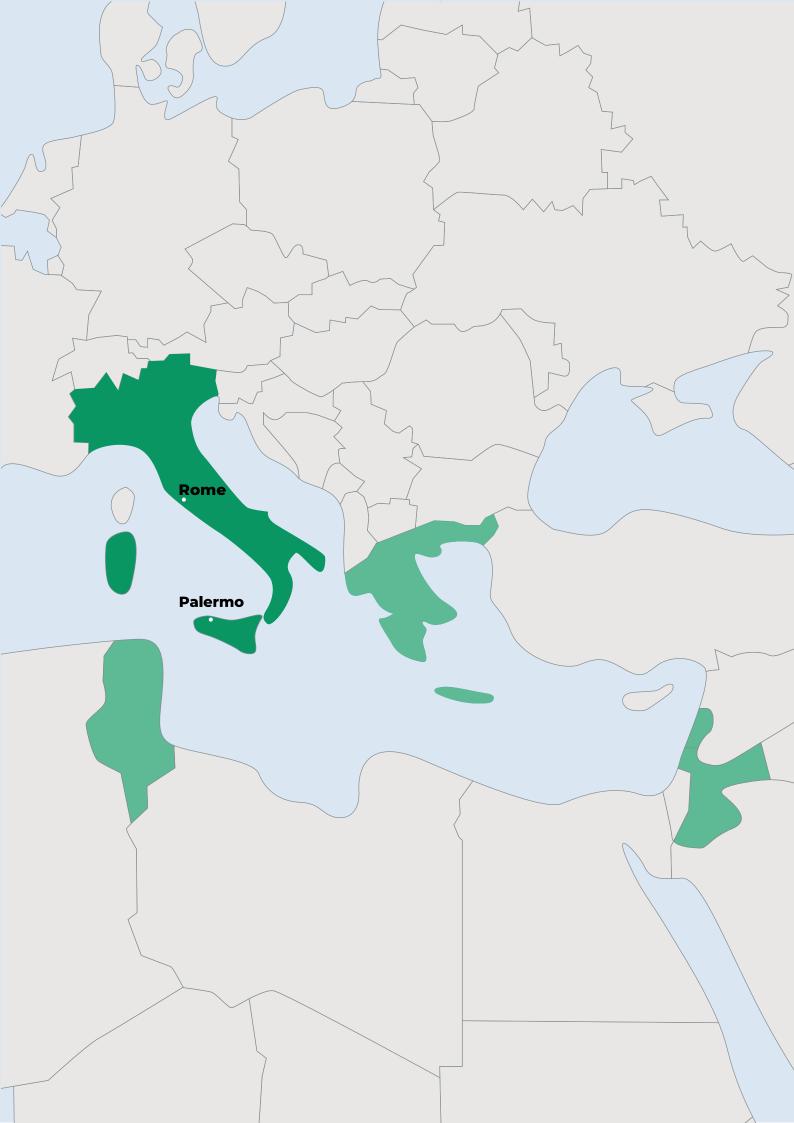


Table of Contents

Introduction	4
1 Project objective, scope and expectations	6
2 Research methodology	6
PART I - OVERVIEW OF THE ITALIAN CONTEXT	8
1.1 The Agri-food Sectos	9
1.2 The Waste Management Industry	10
1.3 The Italian Youth, Women and NEETS situation	11
1.4 The Educational and Training System in the Country	11
PART II - STATISTICAL ANALYSIS OF THE RESEARCH TOOL	15
Conclusion	21
References	23
Websites	

Introduction

This research is conducted in the framework of the EU-funded project MYSEA, Mediterranean Youth, NEETs and women advancing Skills, Employment and Awareness in the blue and green economy. The project's aim is to increase the employability of young people, women and NEETs in the industries of the agri-food and waste sectors through the development of training oriented to both of them and by strengthening the local governance and sector-skills alliances between economic actors and TVET institutions to align the education curricula with sector's needs.

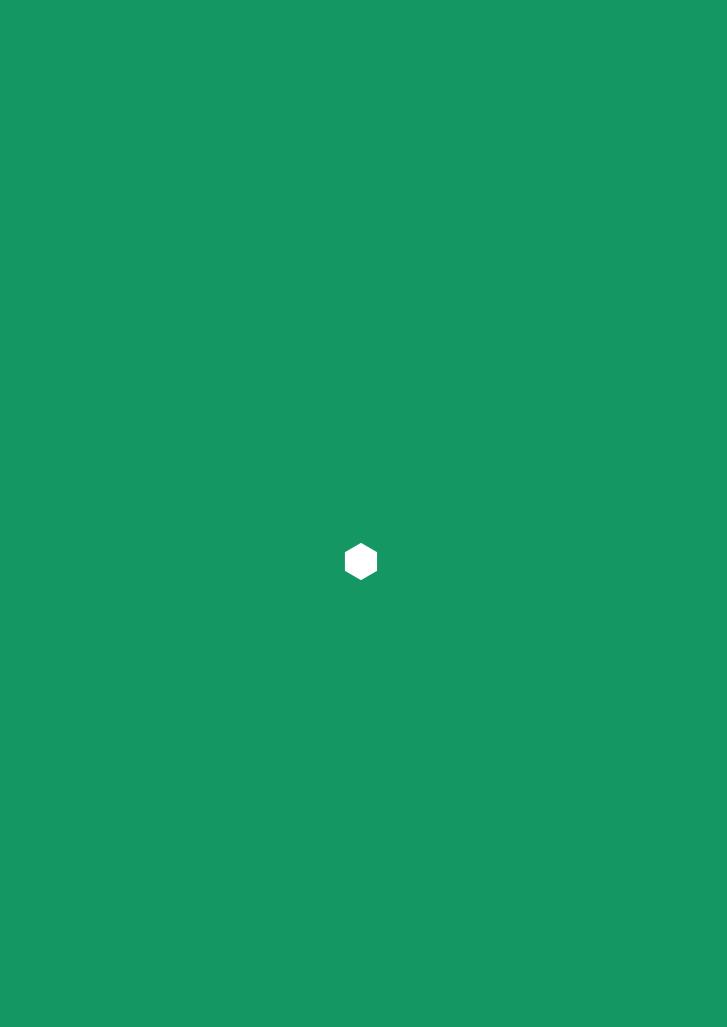
The Territorial Analysis is a document produced by every Partner Country, involved in the MYSEA project (Italy, Greece, Lebanon, Tunisia and Jordan) to describe the national context and summarize the findings from the national questionnaires and interviews. The situation analysis represents the reference to finalize the Cross Border Analysis and to design the Skills Development Agenda Scheme based on the Countries experience and requirements in order to develop cross border training curricula and improve common skills among the Mediterranean citizens.

It is a very crucial part of the project because it examines in depth the research tool results and reports the suggestions, comments and recommendations from the respondents to the survey (identified among: Youth, Women and NEETs; Economic Actors of the Agri food and Waste Management sectors; TVET Institutions) and from the Partner Countries involved in the MYSEA project (Italy, Greece, Lebanon, Tunisia and Jordan).

In particular, through the survey activity it allows to better understand the current condition of Youth, Women and NEETs in every Partner Country (looking for example at their employment situation, level of education completed, main skills and fields of specializations, intention to work in the Agri food or in the Waste Management sectors, sustainability perspective, etc).

Through the survey to Economic Actors and Technical and Vocational Education and Training institutions and enterprises (TVET) it allows to identify the emerging practices in the Agri food and Waste Management sectors the main skills requested by the companies, the main job profile and/or vacancies in both sectors which are the main challenges for every target group, the main reasons for skills mismatch and high level of youth unemployment in the Country, the suggestions of the participants for social inclusion, for supporting sustainability participants for social inclusion, for supporting sustainability actions and for the adoption of good practices.actions and for the adoption of good practices.

The 2014-2020 ENI CBC Mediterranean Sea Basin Programme is a multilateral Cross-Border Cooperation (CBC) initiative funded by the European Neighbourhood Instrument (ENI). The Programme objective is to foster fair, equitable and sustainable economic, social and territorial development, which may advance cross-border integration and valorise participating countries' territories and values. The following 13 countries participate in the Programme: Cyprus, Egypt, France, Greece, Israel, Italy, Jordan, Lebanon, Malta, Palestine, Portugal, Spain, and Tunisia. The Managing Authority (MA) is the Autonomous Region of Sardinia (Italy). Official Programme languages are Arabic, English and French. For more information, please visit:www.enicbcmed.eu.





1 Project objective, scope and expectations

The MYSEA project has the **objective** to provide young people, especially those belonging to the NEETs and Women with marketable skills and has the final scope to give them more chances to find a satisfactory job.

By proposing a 'knowledge scheme' and by offering them guidance through dedicated training programmes, the European Union which financed the MYSEA project through the funds of the ENI CBC MED programme, is trying to foster cooperation and integration in the Mediterranean Region and reach the expectations of boosting employment, encouraging social inclusion and creating conditions of well being in the Countries.

2 Research methodology

The research methodology in the Work Package 3 (WP3) (Output 3.1) has been developed, adapted and calibrated to study a very heterogeneous group of respondents who are characterized by different cultures and socio-economic backgrounds.

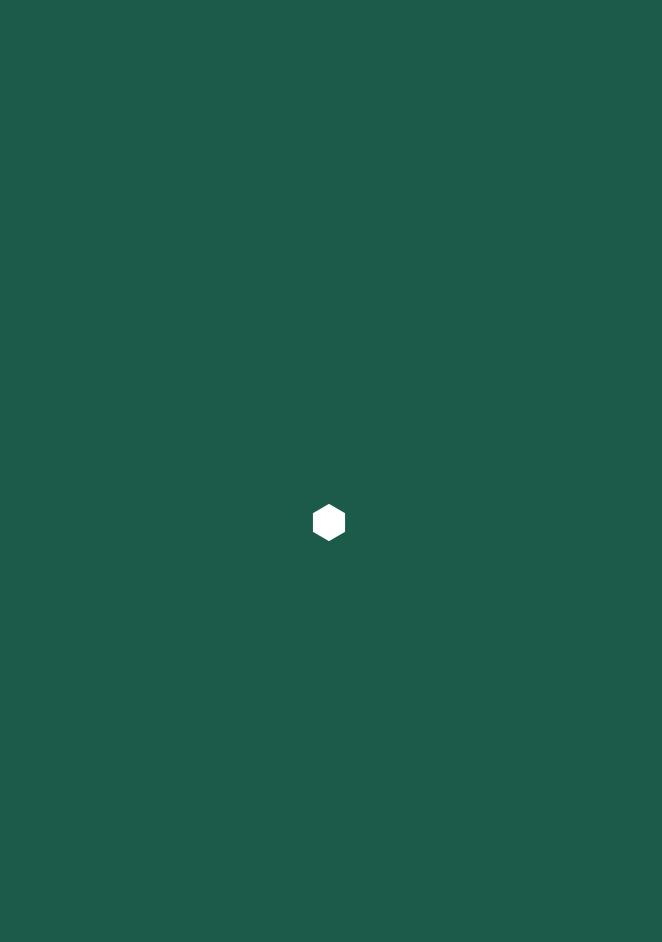
It is made by various phases which have allow ed the Project Partners (PPs) to examine in depth the national context and to report the main findings and information into the documents that they have gradually produced.

The **content analysis** of official documents, policies, published literature, previous works (such as EU Programmes, Strategies and Communications; Government public data; national statistics data) has produced the **Desk Research** (activity 3.2.1) where the PPs Countries reported data about the national context and the main topics and indicators linked to the research aim.

The Desk Research has allowed the PPs to frame a general overview of the Mediterranean Countries involved in the MYSEA project and to opt for a **quali-quantitative research method** that was useful to design a specific research tool represented by **questionnaires** and **interviews**.

In accordance with the characteristics of the study and the sample to analyse, the stakeholders mapping was made by targeting all the potential participants and beneficiaries of the project, as a consequence, the most appropriate **methodology of selection** (Activity 3.1.2) was identified in the *non probability sampling methods* and by the selection of individuals based on *non-random criteria*.

More in particular, the **methodological guidelines** and the **research protocol** (Activity 3.1.1), have been defined to detect the key factors for the promotion of innovation, competitiveness, inclusion and employment in the Green and Blue Economy; to enhance skills and awareness of Youth, Women and NEETs and to ensure comparability actions among the Countries involved in the **MYSEA** project





PART I - OVERVIEW OF THE ITALIAN CONTEXT

Italy, known also as *the Italian Republic* is a Southern Europe peninsula located in the heart of the Mediterranean Sea. The country has 60,244,639 millions of inhabitants (51.3% women)¹ and covers a total area of 302,073 square kilometres (ISTAT, 2018). The territory is characterized by hills: 41.6% of the total area (where lives the 38.8% of population), mountains: 35.2% (where lives the 12.2 % of population) and plain 23.2% (where lives the 49.0% of population)²; and has a climate that ranges from humid subtropical to humid continental and oceanic. This orographic and climatic diversification makes possible the flourishing of extraordinary natural landscapes with a huge fauna and biodiversity, with numerous national parks, lakes and rivers which are distributed all along the peninsula.

Due to its geography and its central and strategic location in Southern Europe and in the Mediterranean Region, Italy has historically been home for a myriad of peoples and cultures (it has the world's largest number of World Heritage Sites (58)³ has 3,882 museums and collections, 630 monuments, 327 archaeological sites and 69 eco-museums ⁴ it is leader in the tourism sector and is one the most important actors of international trade and exports, it also ranks very highly in life expectancy, quality of life, healthcare and education.

Italy has one of the most advanced economies in the world in terms of Gross Domestic Product (GDP)⁵, it was the eighth in the world for GDP in the 2020⁶ and third in the European Union (EU). The GDP per capita (at current US\$) in 2020 was 31,676.202\$⁷.

The national economy is based on a very innovative and competitive business system which has significant impact and numbers in every economic sector. This system is made by small and medium-sized enterprises that are clustered in industrial districts and that are highly specialised in the automotive, fashion, food, design, machinery, manufacturing and luxury goods industry.

The country has a very competitive Agri-food sector who is especially known and appreciated for its wines (is the largest wine producer in the world⁸), extra virgin olive oil and organic food, for Mediterranean vegetables and fresh fruits, for old grains and seafood (which also represent a relevant section of the *Blue Economy*). Italy is leader in Europe for renewable energy production, for organic farming, for food protected under the quality assurance labels PDO, PGI and TSG (in 2021, 315 products have been certified in a list made by a big variety of cheese, oil, balsamic vinegar, meat and its derivatives, fish, wine and a lot more⁹).

- ³UNESCO list, <u>http://whc.unesco.org/en/statesparties/IT</u>, accessed on 04/0921.
- ⁴ ISTAT, 2020. <u>https://www.istat.it/it/files//2020/10/CartolinaltaliaGis2020eng.pdf</u>, accessed on 04/09/21.
- ⁵ IMF, World Economic Outlook (April 2021).
- ⁶<u>https://databank.worldbank.org/data/download/GDP.pdf</u>, accessed on 27/08/21.

⁹ Elenco dei Prodotti DOP, IGP e STG (aggiornato al 04.08.2021), Mipaaf, 2021.

¹ ISTAT, 01/01/20. <u>https://www.istat.it/it/files//2020/10/CartolinaltaliaGis2020eng.pdf</u>, accessed 04/09/21. ² <u>https://www.crea.gov.it/documents/68457/0/ITACONTA+2020_ITA_WEB.pdf/ba40efle-d369-09a9-9d83-</u> 2aad58d8ac6a?t=1612356137039, accessed on 04/09/21.

⁷ The World Bank data, 2021. <u>https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?locations=IT</u>, accessed on 22/08/21.

⁸ State of the world vitivinicultural sector in 2020, OIV, April 2021.

The alignment with sustainability policies has been increasing during the years and in the Country there are several and effective applications of the **Green** and **Circular Economy.**

In the last *Report on the State of the Green Economy-2020*¹⁰, Italy has underlined that in its *Recovery Plan* from the covid-19 pandemic the attention is focused on Environment and Climate that are key factors of the Green Economy and *The European Green Deal*¹¹.

The national Government has defined a package of proposals for the *Italian Recovery Plan* employing the *EU Next Generation* funds and have defined measures to boost investments and to provide guidelines for programs and reforms on: Energy and Climate, Circular Economy and Waste Management, Green Cities and Buildings and Water Management, Urban Mobility and Sustainable Transport, Agri-Food System and Land Management.

1.1 The Agri-food Sector

The agricultural sector in Italy takes 2.2 % of the national GDP¹² but if we consider the Agri-food sector the share of GDP is about 17%.

It operates according to the dedicated EU Policies and regulations, first of all the **Common Agricultural Policy** (CAP) and the two funds, also known as the "two pillars" of the CAP: **The European Agricultural Guarantee Fund** (EAGF) and The European Agricultural Fund for Rural Development (EAFRD).

Thanks to the natural environment, the climate and the farming practices, the Agri-food sector in the country became, through the years, a multifunctional sector capable of providing a wide array of agricultural products, secondary activities and services that have been developed, in line with the *green economy model*, with the aim to reduce the impact of production and food chain and to create a **value chain**.

Going more in detail to some *agricultural indicators* that allow to understand the sector's evolution in the last ten years and according to the 7th General Agricultural Census, in Italy there are more than 1,700,000 farms (ISTAT 2021) of small and medium dimensions that have less than 10 employees (the average size per employee of agricultural enterprises at national level is 2 employees per enterprise), which utilise land for cultivating mainly permanent **crops**, **olive and fruit plantation**, **oil olives** and **vineyard**; which are specialised on **livestock** (mainly poultry, pigs, rabbits, sheep and cattle); or run business and companies linked to the agricultural sector such as: **agritourism**, **food and wood processing**, **renewable energy production**, **social farming**, **silviculture** and aquaculture (see figure 1).

More in detail to the statistics made for the **labour force**¹³, the majority of the farmers are men 40+ years old with a level of **education** that decrees when the age increases (from the degree of the youngest farmers to primary education for people 70+). This data shows that the previous generations of farmers, probably inherited land and farm from the family; they were 'family labour force' in their young age and became farm manager later in the years; they maybe lived far from educational centres and schools or didn't have interest, time and money to invest in education.

¹⁰ https://www.fondazionesvilupposostenibile.org/wp-content/uploads/dlm_uploads/Executive-summary-2020-web.pdf, accessed on 22/08/21.

¹¹ European commission, The European Green Deal, Brussels, 11.12.2019, COM (2019) 640 final. <u>https://eur-lex.europa.eu/resource.html?uri=cellar:b828d165-1c22-11ea-8c1f-01aa75ed71a1.0002.02/DOC_1&format=PDF</u>, accessed on 22/08/21.

¹² https://www.economia-italia.com/settori-economici-in-crescita-in-italia, accessed on 29/08/21.

¹³6th General Agricultural Census, ISTAT, 2010. <u>http://censimentoagricoltura.istat.it/inbreve/?lang=en#,</u> accessed on 29/08/21.

Apparently, the previous generations of farmers came from a different era, where more people remained keen to inherit the family farm with its traditional agricultural practices and activities (in the last decades, the number of farms has been diminishing and has also diminished employment in agriculture) but farms were less specialized and globalized than nowadays. In the past, a high level of education and IT technologies were not strictly necessary to run a company but things gradually changed and the new generations of farmers have higher levels of education and are more inclined to adopt IT technologies and more innovative strategies of management and production.

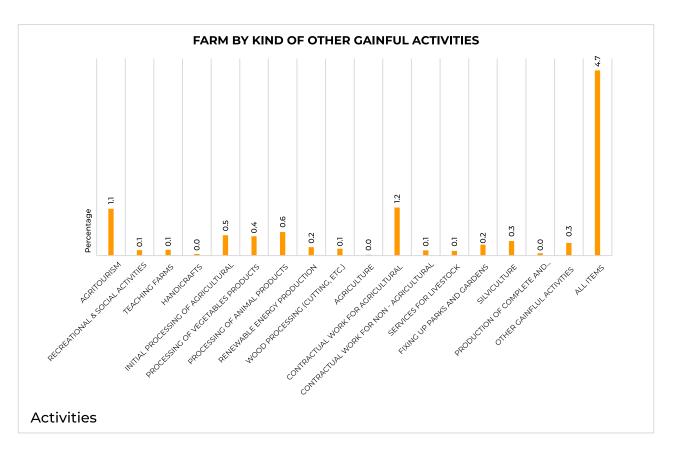


Figure 1. Farms by kind of gainful activities (%). Data **Source:** Own elaboration from the 6th Agricultural Census, ISTAT, 2010

1.2 The Waste Management Industry

Waste management in Italy has been guided by national and European regulations to treat and recycle waste.

At national level, the disposal of waste has been organically regulated since the Presidential Decree 915 of 10 September 1982, issued in implementation of EEC directives n. 75/442 (relating to hazardous waste), n. 76/403 on the disposal of polychlorinated biphenyls and polychlorinated biphenyls) and n. 78/319 (relating to waste in general).

Incinerators are not that popular in the Country and Waste Management is focused on landfill and recycling activity and is financed at municipal level by residents through the payment of an annual tax called TARI that depends on the square footage of the property and differs widely from area to area. By recycling and managing waste (before its storage, disposal or discharge in landfill) and applying the policy of 'Waste Free', in Italy there are Municipalities where each citizen annually produces less than 75 kg of waste to be sent for disposal: it means that more than 50% of urban waste produced by individual citizens (not by industries) is recycled (the average in the EU is 47%).

A specific chapter in terms of Waste Management is represented by the operations to collect, store and process waste linked to the **food chain** and to the **Agri-food industry.**

In these cases, waste management takes a very important rule, not only to reduce the amount of wastes that goes to landfill but also because there could be wastes to recycle, repair, repurpose and transform in something useful again (for example compost which comes from the natural process of decomposition of organic wastes and can be used as fertilizer); or there could be hazardous wastes such as chemicals which have to be collected from authorized companies that have to treat them according to the national regulations.

1.3 The Italian Youth, Women and NEETS situation

According to the last available ISTAT data¹⁴ (2020), for people in the class of age 18-29 years old, the situation of employment, education and inclusion in Italy is characterized by the following values and characteristics:

• High values of unemployment rate (unemployment was 22.8% in the last trimester of 2020) which is even higher when the level of education is lower (in the last trimester of 2020 was 31.7% for youth with primary school diploma, 21.8% for youth with secondary school diploma and 16.8% for youth with a degree);

• Gender inequalities in job position and salary (despite of the same level of education reached, unemployment in the last trimester of 2020 was 23.2% for female and 22.4% for male, i.e. it was 34.6% for women with primary school diploma and 30.5% for male with primary school diploma);

• The highest number of NEETs in the EU (in 2019 they represented the 23% of the Italian population¹⁵);

• Big numbers of early leavers from school (based on Eurostat statistics of June 2021, in 2020 they were about 13% of the Italian population that had completed at most a lower secondary education and was not in further education or training) with the consequence that with a low level of education they struggle to find a job or they can only work with low salaries and cannot strive to high level job positions.

The situation was not that different, before the international crisis caused by the pandemic. This means that the Country needs to take more actions in support of this target group and needs to apply new policies and to promote more effective changes.

1.4 The Educational and Training System in the Country

The typology of competences available in Italy is very assorted, it has been adapted to the labour market requests but is primarily based on the economic system structure and services provided by the Country.

The process of development of skills has been reformed during the years and has been applied through mandatory education (primary and secondary school) and through post mandatory school and training activities (that are comprehensive of initial vocational training; higher technical training; continuous training and permanent training) by engaging people to study or receive training until 18 years old (according to the 'right-duty' to education and training for at least 12 years).

¹⁴ Istat, <u>http://dati.istat.it/Index.aspx?DataSetCode=DCCV_TAXDISOCCU1</u>, accessed on 15 October 2021.

¹⁵ <u>https://ec.europa.eu/eurostat/documents/10186/10990320/IT-IT.pdf</u>, accessed on 27/08/21.

Education and training are supported by national budgets and/or by private participation and are assigned to national, regional and local institutions and agencies accredited for education and training activity (schools, universities, private companies, training agencies, research centres, upper secondary education institutions and training institutions).

Looking at education and training, in the Agri-food and Waste Management sectors, in Italy there are various courses and training activity, the main recently offered by TVET Institution¹⁶ can be seen in **table 1** and give a general overview of the current skills and competence in both the sectors:

Courses provided for the Agri-food sector:

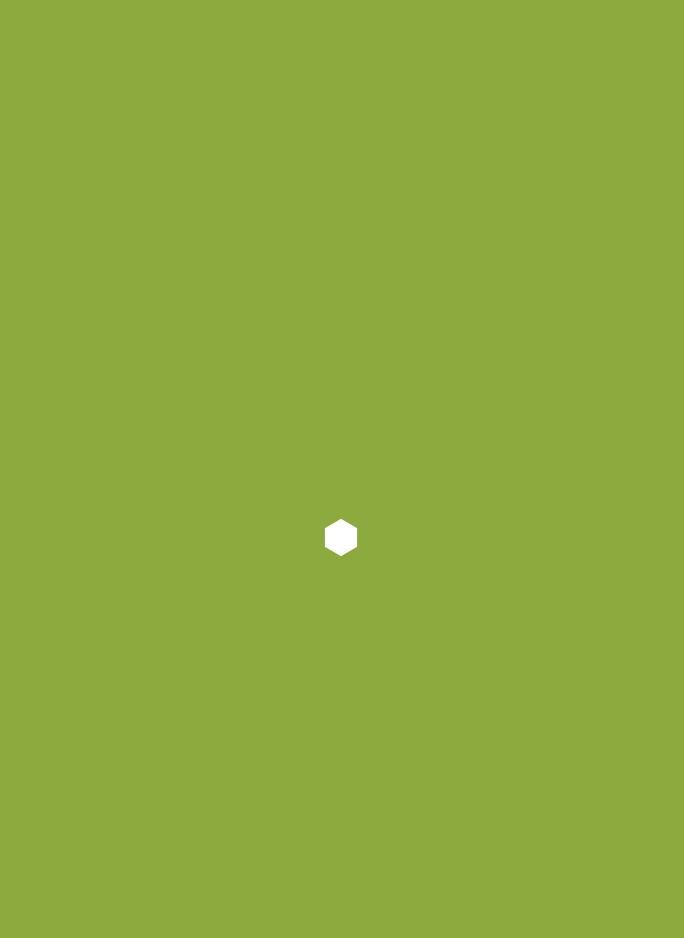
- 1) Innovative organic fertilizers
- 2) Innovative grafting and budding techniques for grapes
- 3) Pruning of the vineyard and cellar operations
- 4) Pruning of fruit trees
- 5) Agro-energy wood supply chain
- 6) Food and wine tourism
- 7) Compulsory training for the professional sale, purchase and use of plant protection products
- 8) Pruning of the olive tree
- 9) Tasting of extra virgin olive oil
- 10) Course for the qualification to drive agricultural and forestry wheeled and tracked tractors
- 11) Agro-climatic-environmental interventions (requirements of the training activities in compliance with measure 10.1 of the RDP 2014/2020)
- 12) Technician for the control of Agri-food and organic production
- 13) The conversion to organic farming
- 14) Regulations and techniques for integrated production
- 15) Meat processing
- 16) Cheese making techniques
- 17) Construction and maintenance of green areas
- 18) Precision agriculture and use of ICT, smartphones and mobile applications (e-agriculture)
- 19) Information technology in business management
- 20) Tax issues in business management
- 21) Innovative marketing and marketing systems for the Agri-food sector
- 22) Direct sales
- 23) Introduction to organic farming
- 24) Innovative techniques for the control of plant diseases
- 25) Innovative techniques for the control of olive plant diseases
- 26) Increase in carbon storage: zoo technical waste
- 27) Forestry technician
- 28) Specialization in garden design and construction site techniques
- 29) Gardening and Arboriculture Specialization
- 30) Technician of Organic Agriculture
- 31) Green maintenance
- 32) Safe Use of the Chainsaw
- 33) Courses for Young Agricultural Entrepreneurs

¹⁶ Informagiovani, <u>http://www.informagiovaniroma.it/studio-e-formazione/approfondimenti/formazione-professionale/la-formazione-nel-settore-agricolo</u>, accessed on 15 October 2021.

Courses provided for Waste Management:

- 1) Waste and its classification
- 2) The management of waste
- 3) The definitions of special and municipal waste
- 4) Temporary storage of waste in the company

 Table 1. Main courses recently provided by Italian TVET Institutions.



PART II - STATISTICAL ANALYSIS OF THE RESEARCH TOOL CONTEXT

As previously said, the research tool was made by questionnaires and interviews (three target- based questionnaires have been developed for all groups of respondents: the Primary Beneficiaries represented by Youth (18 to 24 years old), Women (at all ages) and NEETs (up to 30 years old); the Economic Actors of the Agri-food and Waste Management sectors; the TVET Institutions. Two semi structured interviews have been addressed to both groups of Stakeholders).

Regarding the Primary Beneficiaries the survey took into account information about: gender representation, age, educational history and personal skills, employment situation, occupational interest, sustainability perspective, motivation, intention to work in the Agri-food Sector and/or in the Waste Management Industry and desire to acquire the skills defined for each sector.

Regarding the TVET institutions, it put the emphasis on understanding their role in skills development and career coaching. For this category of respondents, plenty of the questions were based on their training and mentoring activities because with their capacity to intercept market trends and to support the definition and spreading of new occupational profiles, the TVET institutions are also key actors for the definition of employment schemes, for aligning the education curricula with demand and for bridging the gap between skills demand and supply.

The survey dedicated to the Economic Actors was designed to better understand what employers are looking for in terms of in-demand skills for both the Agri-food and Waste Management sectors and what the Companies are offering in terms of new professional opportunities which are eventually emerging in the Green and Blue Economy.

In Italy the survey was conducted in two representative Regions: Sicily and Lazio and totalised 267 questionnaires out of 250 requested for Youth, Women and NEETs; 111 questionnaires out of 100 and 26 interviews out of 25 for Economic Actors; 30 questionnaires out of 30 and 26 interviews out of 25 for TVET Institutions.

The main results from the survey of primary beneficiaries show that the most representative age group of respondents engaged by the project was 25-34 years old with 47.9% of participants. This data is in line with the fact that the majority of participants were women (at all ages) and reflect that in this age group are included also the NEETs (respondents up to 30 years old). Only a few women 45+ filled the questionnaire, probably the interest to participate in the survey decreased with the increasing age of the respondents. The value for the level of education completed is medium-high: 45.3% reached the High School Diploma, 24.7% have a Master Degree and 23.6% a Bachelor Degree. Among the Primary Beneficiaries who filled the questionnaire, in the final analysis have been counted 83 fields of specialization. From the scientific and technical area to the humanistic one. More in detail, the majority, 25.8% was made by respondents who are specialized in Agronomy, 9% in Engineering, 9% Health care, 6% Social and cultural knowledge, 5.6% Economics, 4.9% History and Literature. Regarding the skills and competences acquired by the respondents, the main are listed in table 2:

Main skills of Italian Youth, Women and NEETs:
Communication in foreign language
Communication skills
Healthcare
Innovation and offer of new products
Marketing
Science and Technology
Sense of initiative and entrepreneurship
Social and civic competence
Waste management
Other

 Table 2. Main skills of Italian Youth, Women and NEETs.

The value for **employment situation** of the survey is quite aligned with the national statistics data, in particular the findings about the Primary Beneficiaries tells that only 34.5% are employed and 65.5% are unemployed (46.4% not previously employed and 19.1% previously employed). In general, 43.4% of respondents declared that at the moment they have interest in continuing their studies, 31.5% said that they are looking for employment and 15.7% that they are involved in training activity. The data shows that Education and Training represent a very central aspect for people in the age group of 18-34 years old. About the main occupational interest of the respondents the majority has interest to work in the Agri-food sector, 20.6% have interest in science related job opportunities, 16.1% in social services, 15.7% in tourism and hospitality, 13.5 % in renewable energy, 12% in design, 10.1% in business, 5.2% in sport, 4.1% in waste management, 1.5% in ICT (percentages below 1% are not listed here but other occupational interests have been mentioned in the survey). About the intention to work in Agri-food and Waste Management, the majority of the respondents agreed to work in both the sectors but they disagreed on the conditions: they appeared more motivated when the job position was appropriate to their level of qualification, stable, with a contract and payment commensurate with the hours. The respondents appeared more inclined to be entrepreneurs of the Agri-food sector than the Waste Management, about 30% (between who agreed or strongly agreed) revealed that their professional goal is to be an entrepreneur and about 70% disagreed or strongly disagreed to become a worker.

The majority of the Primary Beneficiaries has knowledge of **Sustainability** and **Circular Economy** and **is committed to recycling.**

The main results from the survey of Economic Actors show that the majority is represented by men 35+, directors and owners of Agri-food Companies (with responsibility in every activity), with high level of qualifications (45% have Master Degree) and experience in three main fields of specialization: Agronomy 44% of participants, Economics 21% and Management 4%. One of the most important parts of this survey was based on the questions about the main skills and/or professional profiles requested by the companies (see tables 3 and 4) and it shows that companies are struggling to find specialized and non-specialized workers. They mainly need experts and/or operators in: digital skills, communication and marketing, environmental awareness, management, e-commerce, food processing.

The majority has knowledge of **Sustainability** and **Circular Economy, is committed with recycling and promote good practices** (i.e. the G.A.P., application of quality protocols, production of natural fertilizer from compost, introduction of software to minimize use of water, reduce use of chemicals and optimize the route of waste collection, etc.).

Main skills requested by the Economic Actors in the survey:
Agronomic 68.5%
Qualified worker 47.7%
Marketing 40.5%
Environmental awareness 31.5 % Communication 29.7%
Innovation and offer of new products 24.3%
Sense of initiative and entrepreneurship 24.3%
Communication in foreign language 22.5%
Tourism and hospitality 18.9%
Business analysis 18.1%
Competence in science and technology 17.1%

Waste management 11.7%

Chemical knowledge 10.8%

Social services 7.2%

Artificial intelligence 6.3%

Data analysis 6.3%

Table 3. Main skills requested by the Economic Actors in the survey (in the table has beenreported only data with a percentage of at least 5%).

List of manual or skilled workers requested by the Economic Actors of the survey by main typology

- Accountants
- Administrative and technical staff
- Agricultural labourers with basic knowledge
- Agricultural labourers with agronomic skills on tropical and subtropical crops
- Agronomists
- Arboriculturalists
- \cdot Beekeepers
- Biologist
- Brewery technology specialists
- Business analysts
- · Business consultants (to help the companies to invest and renew their profile)
- Cheesemakers
- Chefs
- Chemists
- Disassembly workers

- $\boldsymbol{\cdot}$ Drivers of agricultural and forestry wheeled and tracked tractors
- Educators
- Environmental and territorial engineers
- Experts in animal nutrition
- \cdot Experts in bio-parks management
- $\boldsymbol{\cdot}$ Experts in food processing
- Experts in ICT/use of computerised machines
- \cdot Experts in irrigation techniques
- Experts in logistic (packaging and shipping)
- Experts in pet therapies
- Experts in renewable energy
- \cdot Food technologists
- $\boldsymbol{\cdot}$ Forestry technicians and workers
- \cdot Forklift drivers
- Human resources coordinators
- \cdot Ichthyologists
- · Laboratory analysts (for chemical, physical and microbiological analysis)
- Livestock workers
- Managers
- Oenologists
- \cdot Operators for educational farms
- Operators for food processing (transformation of fruit and vegetables)
- Operators for quality control
- Permaculturists
- Pruners and experts in grafting of seedlings
- Psychologists
- \cdot Qualified farmers
- \cdot Receptionists
- Researchers
- Samplers
- Sales agents and managers
- Skilled drivers
- Social media manager
- \cdot Technicians in charge for the production machines
- Tractor drivers
- Transport and logistic specialists
- Tutors in psychic disability and/or autism
- Veterinarians
- Waste collectors
- Workers for fruit picking
- Workers in oil mills

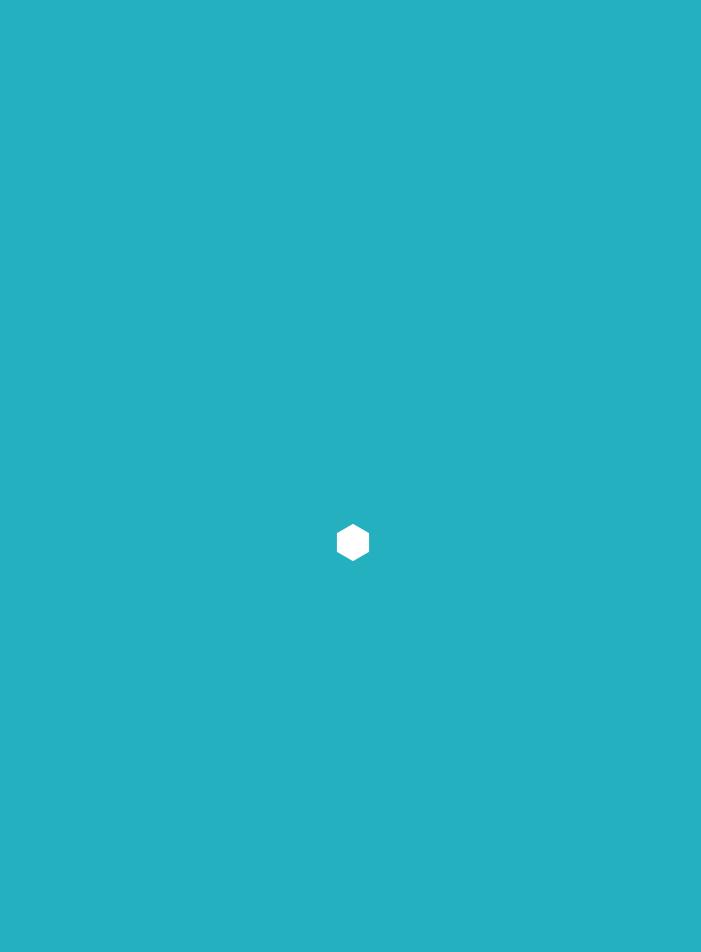
Table 4. List of manual or skilled workers requested by the Economic Actors of the survey by main typology.

The main results from the survey of TVET Institutions show that, based on their experience, in the last five year of employment scheme the request of skills gradually increased for digital and transversal skills. They told that, despite the covid-19 pandemic doesn't allow a proper evaluation of the matter, the labour market trends is mainly asking for skills traditionally linked to the Agri- food sector and for skills linked to ICT. Companies and applicants mainly require: sector-related courses for qualified workers, e-learning courses, courses in marketing, courses in tourism, courses for web-sites users/designers and for improvement of ICT skills, courses for manufacturing, courses in food processing and courses for agricultural workers with basic knowledge in the Agri-food sector.

The TVET Institutions provide for courses and training programmes by targeting the market trends and by adapting the methodology to the recipients and the time being (for example since the covid-19 pandemic they increased online courses). Looking at recipients, the main applicants are unemployed 24+ of both genders that are encouraged to apply by country legislation and financial incentives.

The majority of the TVET Institutions evaluate the impact of courses and training programs provided quite positive for the reason that people usually succeed to approach the labour market and to find a job but recognise that there is still skill mismatch. In their opinion, they haven't been in the condition to bridge the gap between demand and supply because they are having criticisms determined by bureaucracy, lack of national reforms of the Educational Sector and lack of dialogue with job-centres and companies.

Other findings and relevant opinion, comments and suggestions from all the participants about **inclusion** of Youth, Women and NEETs in the labour market, about **good practices** to adopt and about the implementation of a more **sustainable food chain** have been listed and are visible in the integral version of the Territorial Analysis (Activity 3.5.1).



CONCLUSION



The general analysis of all the questionnaires and interviews has illustrated that the respondents are actually sharing the concept of the MYSEA project and they are particularly keen to invest in Education and skills development.

The answers of the **Primary Beneficiaries** underline that they are interested to work in both the sectors but have a preference for the Agri-food with the goal to become entrepreneurs.

They talked about Sustainability, Waste Management and Education as key concepts for a more suitable way of living, working and producing. They **underlined the importance of job-oriented education before approaching the labor market and the importance of apprenticeship experience for being introduced to a Company.**

The **Economic Actors** who took part in this study, gave significant information about the job profiles and the main skills requested by their companies.

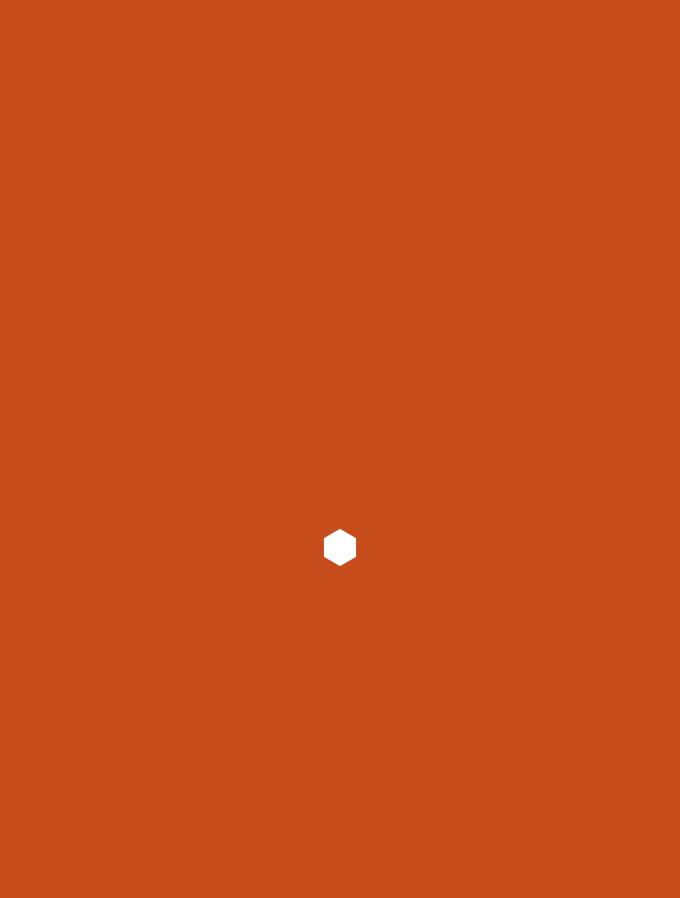
The majority is trying to increase sales at national level and exports and is trying to be more innovative and competitive by modernizing the companies, investing in new technologies and increasing knowledge and competences of both manual and conceptual workers.

The experience of the **TVET Institutions** confirms that the skills mismatch in the Country is determined by structural criticisms and by the need of reforms and modernization of the Educational System. Their general evaluations about the recent and current market trends reflect the request of skills and job profiles of the Economic Actors.

They have a variety of courses and training programs, but despite their effort, it is not that easy involving Youth, Women and overall NEETs to participate in training activities unless they are really motivated or have a monetary incentive.

The study of the national context from official statistics and the overview given by the three target group involved in the survey allow to report important data in the document of synthesis of the WP3 (the Cross Border Analysis) and to design the Skills Development Agenda Scheme with a very significant amount of information and suggestions from Partners and participants.

Recommendations for designing the training packages from PPI are to look at the findings of the Territorial Analysis and compare them with the information available at national level. To reach the final scope and the expectations of the MYSEA project, the improvement of skills has to be calibrated and applicable at the specific national context and the specific typology of beneficiaries.



REFERENCES

• Ajzen, I. (1991). The theory of planned behavior. Organizational behavior and human decision processes, 50(2), 179-211.

• Ajzen, I., & Fishbein, M. (1975). A Bayesian analysis of attribution processes. Psychological bulletin, 82(2), 261.

• Akinyemi B.E and A. Mushunjeb (2017). Born Free but 'NEET': Determinants of Rural Youth's Participation in Agricultural Activities in Eastern Cape Province, South Africa. International Journal of Applied Business and Economy Research. Volume 15.

• Alfieri, S., Sironi, E., Marta, E., Rosina, A., & Marzana, D. (2015). Young Italian NEETs (Not in Employment, Education, or Training) and the influence of their family background. Europe's Journal of Psychology, 11(2), 311.

• Animal Frontiers, July. 2020, Vol. 10, No. 3.

• Antonella Baldi, Nicolò Pietro Paolo Macciotta, Giuseppe Pulina, and Bruno Ronchi (2020). Perspectives for the future in Italy: animal science higher education, employment, and research.

• Banca d'Italia, June 2021, https://www.bancaditalia.it/pubblicazioni/economie- regionali/2021/2021-0019/ index.html?com.dotmarketing.htmlpage.language=102, accessed on 15 October 2021

• Becot, F., Conner, D., & Kolodinsky, J. (2015). Where do agri-food entrepreneurs learn their job and are there skills they wished they had learned? The International Journal of Entrepreneurship and Innovation, 16(3), 207-215.

• Bertolini P. (2014). L'evoluzione della presenza femminile nell'agricoltura italiana ed i nuovi tratti dell'imprenditoria delle donne. DEMB Working Paper Series N.40.

• Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic And Social Committee, The Committee Of The Regions And The European Investment Bank A clean planet for all a European strategic long-term vision for a prosperous, modern, competitive and climate neutral economy. Com/2018/773 final.

• Council of the European Union, The Council Resolution on a strategic framework for European cooperation in education and training towards the European Education Area and beyond (2021-2030), Official Journal of the European Union, 26/02/2021.

• Council Regulation (EC) No 1083/2006 of 11 July 2006 laying down general provisions on the European Regional Development Fund, the European Social Fund and the Cohesion Fund and repealing Regulation (EC) No 1260/1999.

• Durakovic Adnan, October 1, 2021. https://www.offshorewind.biz/2021/10/01/1-2-gw- floating-wind-projectemerges-offshore-italy/, accessed on 14/10/21

• Eras, A. G., & Aguilar, J. (2015). Semantic architecture for the analysis of the academic and occupational profiles based on competencies. Contemporary Engineering Sciences, 8(33), 1551-1563.

• European Commission, Statistical Factsheet – Italy, June 2021. https://ec.europa.eu/info/sites/default/files/ food-farming-fisheries/farming/documents/agri- statistical-factsheet-it_en.pdf, accessed on 22/08/21.

• European Commission, The EU Blue Economy Report 2021, https://blueindicators.ec.europa.eu/sites/ default/files/2021_06_BlueEconomy_Report-2021.pdf, accessed on 22/10/21.

• European Commission, Common agricultural policy funds, December 2020. https://ec.europa.eu/info/ food-farming-fisheries/key-policies/common-agricultural- policy/financing-cap/cap-funds_en, accessed on 29/04/21

• European Commission, A Farm to Fork Strategy for a fair, healthy and environmentally- friendly food system, Brussels, 20.5.2020, COM (2020) 381 final. https://eur-lex.europa.eu/resource.html?uri=cellar:ea0f9f73-9ab2-11ea-9d2d- 01aa75ed71a1.0001.02/DOC_1&format=PDF, accessed on (29/05/21)

• European commission, The European Green Deal, Brussels, 11.12.2019, COM (2019) 640 final. https://eur-lex. europa.eu/resource.html?uri=cellar:b828d165-1c22-11ea-8c1f- 01aa75ed71a1.0002.02/DOC_1&format=PDF, accessed on 22/08/21

• European Commission, A Clean Planet for all A European strategic long-term vision for a prosperous, modern, competitive and climate neutral economy. COM/2018/773 final

• European Commission, Blue Growth opportunities for marine and maritime sustainable growth, Brussels, 13.9.2012 COM (2012) 494 final. https://eur-lex.europa.eu/legal- content/EN/TXT/PDF/?uri=CELEX:52012DC0494&from=EN, accessed on 22/08/21

• European Parliament, The blue economy - Overview and EU policy framework, January 2021. https:// www.europarl.europa.eu/RegData/etudes/IDAN/2020/646152/EPRS_IDA(2020)646152_EN. pdf, accessed on 22/08/21.

• Eurostat regional yearbook 2020, https://ec.europa.eu/eurostat/documents/3217494/11348978/KS-HA-20-001-EN-N.pdf/flac43ea- cb38-3ffb-celf-f0255876b670, accessed on 29/08/21.

• Eurostat, Il cambiamento demografico in Europa — Schede informative per paese: Italia, 2019.

• Fao (2020). Guidelines for measuring youth employment and Decent Work in agriculture within developing countries.

• Fielding, K. S., McDonald, R., & Louis, W. R. (2008). Theory of planned behaviour, identity and intentions to engage in environmental activism. Journal of environmental psychology, 28(4), 318-326.

• Grolnick, W. S., Ryan, R. M., & Deci, E. L. (1991). Inner resources for school achievement: Motivational mediators of children's perceptions of their parents. Journal of Educational Psychology, 83, 508-517.

• Hamza, E., Rácz, K., Szabó, D., Tóth, O. M., & Varga, E. (2018). Challenges of labour supply in agri-food sector in Hungary. In 13th European International Farming Systems Association (IFSA) Symposium, Farming systems: facing uncertainties and enhancing opportunities, 1-5 July 2018, Chania, Crete, Greece (pp. 1-12). International Farming Systems Association (IFSA) Europe.

• Holland, J. L. (1997). Making vocational choices: A theory of vocational personalities and work environments. Psychological Assessment Resources.

• ILO, Global Employment Trends for Youth 2020 - Technology and the future of jobs, 2020.

• IMF, World Economic Outlook (April 2021).

• Informagiovani, http://www.informagiovaniroma.it/studio-e- formazione/approfondimenti/formazione-professionale/la-formazione-nel-settore-agricolo, accessed on 15 October 2021

- International Journal of Innovative Science and Research Technology, Volume 5, Issue 7.
- ISTAT, Andamento dell'economia agricola | Anno 2020, 25/06/2021.
- ISTAT, Preliminary estimate of the economic accounts of agriculture | year 2020, 21/01/2021
- ISTAT, Trends in the agricultural economy | YEAR 2020, 04/06/2021.

• ISTAT, Post card from Italy, 01/01/20. https://www.istat.it/it/files//2020/10/CartolinaItaliaGis2020eng.pdf, accessed 04/09/21.

• ISTAT, Struttura e caratteristiche delle unità economiche del settore agricolo|anno 2017, December 2019. https://www.istat.it/it/files//2019/12/Struttura-unit%C3%A0-economiche-settore- agricolo.pdf, accessed on 04/09/21.

• ISTAT, 6th General Agricultural Census, 2010. http://censimentoagricoltura.istat.it/inbreve/?lang=en#, accessed on 29/08/21.

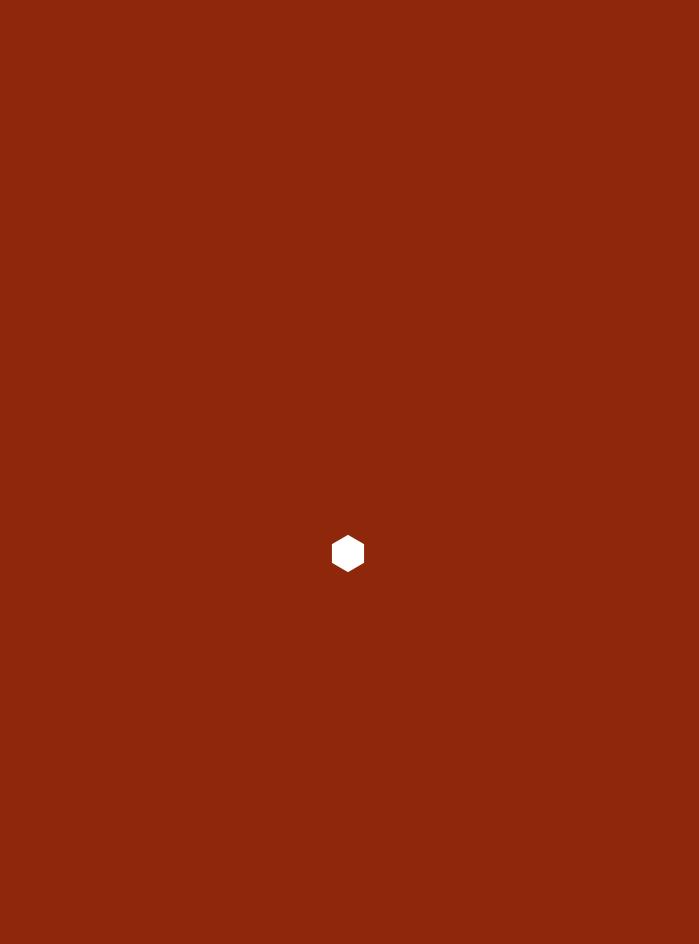
• Italy-IORA Platform, 1 April 2021. https://iora-italy.org/the-blue-economy-in-italy-a-sector- full-of-opportunities/, accessed on 29/05/21.

• Karen Brooks, Sergiy Zorya, Amy Gautam, Aparajita Goyal (2013). Agriculture as a Sector of Opportunity for Young People in Africa. Policy Research Working Paper 6473.

• Krahn, H. J., Howard, A. L., & Galambos, N. L. (2015). Exploring or floundering? The meaning of employment and educational fluctuations in emerging adulthood. Youth & Society, 47(2), 245-266.

• Legambiente, report 'Comuni Ricicloni 2021'.

- Madden, T. J., Ellen, P. S., & Ajzen, I. (1992). A comparison of the theory of planned behaviour and the theory of reasoned action. Personality and social psychology Bulletin, 18(1), 3-9.
- Mipaaf, Elenco dei Prodotti DOP, IGP e STG (aggiornato al 04.08.2021), 2021.
- Nade P.B (2017). Agricultural education and Youth farm entrepreneurial intention: evidence from selected folk development colleges in Tanzania. PhD thesis, University of Agriculture Morogoro, Tanzania.
- Novera D.A. and Marliyah L. (2020). Intention of Entrepreneurship in the Young Generation of Agriculture (Case of Diponegoro University Faculty of Animal Husbandry and Agriculture).
- OIV, State of the world vitivinicultural sector in 2020, April 2021.
- Omidi Najafabadi, M., Zamani, M., & Mirdamadi, M. (2016). Designing a model for entrepreneurial intentions of agricultural students. Journal of Education for Business, 91(6), 338- 346.
- Regulation (EU) No 1299/2013 of the European Parliament and of the Council of 17 December 2013 on specific provisions for the support from the European Regional Development Fund to the European territorial cooperation goal.
- Sahni A., Janjhua Y. and Sharma K. K. (2020). Factors Affecting Entrepreneurial Intention of Students in Agricultural Sector. International Journal of Economic Plants 2020, 7(3):119-122.
- Scabini, E., & Cigoli, V. (1992). Scala di supporto genitori-figli [Parent-child support scale]. Unpublished manuscript, Università Cattolica del Sacro Cuore, Milano, Italy.
- Simõesa, F., do Riob Nazaré B. (2020). How to increase rural NEETs professional involvement in agriculture? The roles of Youth representations and vocational training packages improvement. Journal of Rural Studies, 9-19.
- White, B. (2012). Agriculture and the generation problem: rural Youth, employment and the future of farming. IDS Bulletin, 43(6), 9-19.
- World Bank, What is the Blue Economy? June 6, 2017. https://www.worldbank.org/en/news/ infographic/2017/06/06/blue-economy, accessed on 22/08/21.
- Zampetakis L.A., Anagnosti A., Rozakis S. (2013). Understanding entrepreneurial intentions of students in agriculture and related sciences. AUA Working Paper Series No. 2013-4.





WEBSITES

• https://www.crea.gov.it/documents/68457/0/ITACONTA+2020_ITA_WEB.pdf/ba40ef1e- d369-09a9-9d83-2aad58d8ac6a?t=1612356137039, accessed on 04/09/21.

• https://www.economia-italia.com/settori-economici-in-crescita-in-italia, accessedon 29/08/21.

• http://www.enicbcmed.eu/sites/default/files/Reference%20documents/jop_eni_cbc_med_ 2014-2020_ adopted.pdf (accessed on 29/05/21).

• https://ec.europa.eu/eurostat/documents/10186/10990320/IT-IT.pdf, accessed on 27/08/21.

• https://eur-lex.europa.eu/resource.html?uri=cellar:b828d165-1c22-11ea-8c1f- 01aa75ed71a1.0002.02/ DOC_1&format=PDF, accessed on 22/08/21.

• https://inspire.ec.europa.eu/codelist/EconomicActivityNACEValue/A.01.6, accessed on 22/08/21.

https://noi-italia.istat.it/pagina.php?id=3&categoria=31&action=show&L=1, accessed on 29/08/21.

http://dati.istat.it/Index.aspx?QueryId=20745#, accessed 28/08/21.

 https://www.istat.it/it/files//2019/12/Struttura-unit%C3%A0-economiche-settore-agricolo.pdf, accessed on 29/08/21.

• https://www.lavoro.gov.it/temi-e-priorita/orientamento-e-formazione/focus- on/Formazione/Pagine/ formazione-professionale-iniziale-e-diritto-dovere.aspx, accessed on 10/09/21.

 https://data.oecd.org/youthinac/youth-not-in-employment-education-or-training-neet.htm (accessed on 12 April 2021).

• https://www.fondazionesvilupposostenibile.org/wp- content/uploads/dlm_uploads/Executive-summary-2020-web.pdf, accessed on 22/08/21.

https://www.un.org/sustainabledevelopment/sustainable-development-goals/ (accessed on 29/05/21).

• Renewables, 7 September 2021. https://www.energyfacts.eu/van-oord-to-install-italys- first-offshorewind- farm/#:~:text=The%20Taranto%20Offshore%20Wind%20Farm%20is%20located%20near,and%20es timated%20output%20of%2058%2C000%20MWh%20per%20year. Accessed on 14/10/21.

• https://www.unep.org/regions/asia-and-pacific/regional-initiatives/supporting-resource- efficiency/greeneconomy, accessed on 22/08/21.

- UNEP, 2012. https://www.unep.org/pt-br/node/23750, accessed on 22/08/21.
- UNESCO list, http://whc.unesco.org/en/statesparties/IT, accessed on 04/0921.
- https://unfccc.int/sites/default/files/english_paris_agreement.pdf (accessed on 20-05-21).

• World Bank data, 2021. https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?locations=IT, accessed on 22/08/21.

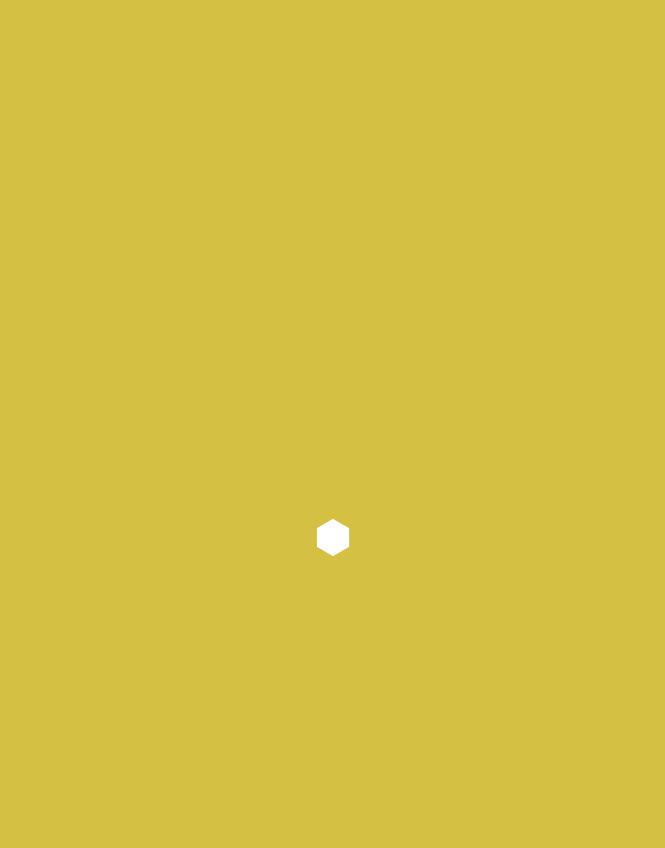
World Bank data, 2021. https://data.worldbank.org/indicator/SL.AGR.EMPL

ZS?end=2019&locations=IT&start=1991&view=chart&year=2019, accessed on 22/08/21.

https://data.worldbank.org/indicator/SL.AGR.EMPL.ZS?end=2019&locations=IT&start=1991&view

=chart&year=2019, accessed on 22/08/21.

• https://databank.worldbank.org/data/download/GDP.pdf, accessed on 27/08/21.



This publication has been produced with the financial assistance of the European Union under the ENI CBC Mediterranean Sea Basin Programme. The contents of this document are the sole responsibility of University of Palermo Department of Agricultural, Food and Forest Science (SAAF) and can under no circumstances be regarded as reflecting the position of the European Union or the Programme management structures.











Contact Information:

CIES Onlus Development Information and Education Center

mysea.coordination@cies.it cies@cies.it

www.enicbcmed.eu/projects/mysea

