



CLUSTER

advanCing youth and women social
inclusion in The mEditerRanean



TVET ORIENTED CATALOGUE

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Abbreviations

ENI CBC Med	Cross-Border Cooperation initiative implemented under the European Neighbourhood Instrument
NEETs	People who are Not in Employment, Education, or Training
TVET	Technical and Vocational Education and Training
SD	Sustainable Development
BaCE	Blue and Circular Economy
ERMS	Electronic Records Management System
BDC	Business Development Centre
UfM	Union for the Mediterranean

CHAPTER 1: Introduction

[Key fact: 267 million young people are Not in Employment, Education or Training \(NEETs\).](#)

CLUSTER project “advanCing youth and women social inClUSion in The mEditeRanean” is one of ENI CBC Med-funded projects under the thematic objective of promotion of social inclusion and the fight against poverty with priority of professionalisation of young people and women.

CLUSTER’s objective is to address NEETs unemployment in the Mediterranean by tackling the following three aspects:

- Train and upskill NEETs to adapt to the needs of the labour market in four sustainable economy sectors.
- Reinforce links between TVET institutions, the private sector and social economy actors.
- Engage public institutions and policy-makers by providing a supportive environment for inclusive employment policies.

The purpose of these interventions is to include the social and the environmental priorities in employment policies, taking into account the post-COVID-19 recovery period. Thus, the reskilling and upskilling of young NEETS and women will be addressed according to the new reality in order to better respond to the labour market needs. CLUSTER also seeks to include social economy as part of the solution and support local, regional and national authorities in their employment policies by providing them with action plans and recommendations based on successful experiences.

THE SUSTAINABLE ECONOMY SECTOR TARGETED BY CLUSTER

Green Economy is defined as low carbon, resource efficient and socially inclusive. In a green economy, growth in employment and income are driven by public and private investment into such economic activities, infrastructure and assets that allow reduced carbon emissions and pollution, enhanced energy and resource efficiency, and prevention of the loss of biodiversity and ecosystem services.

Circular Economy refers to an economic model that focuses on eliminating waste; increasing reuse, recycling and recovery of materials; reducing use of finite resources and shifting to renewable alternatives; and decreasing negative elements such as pollution

Blue Economy comprises a range of economic sectors and related policies that together determine whether the use of ocean resources is sustainable, while the World Bank connected the blue economy directly to livelihoods and job creation and define it as “sustainable use of ocean resources for economic growth, improved livelihoods, and jobs while preserving the health of ocean ecosystem”. CLUSTER project focuses on Aquaponics as one of its capacities building thematic sectors, which is an emerging industry embracing circular economy principles to reduce the strain on our ocean.

Sustainable Agriculture is a type of agriculture that focuses on producing long-term crops and livestock while having minimal effects on the environment, trying at the same time, to find a good balance between the need for food production and the preservation of the ecological system within the environment.

PROJECT PARTNERSHIP

CLUSTER is implemented in 7 Mediterranean Countries; Spain, Italy, Cyprus, France, Jordan, Palestine, Tunisia.

Where the below are the project partners in each country.

Lead beneficiary; The European Institute of the Mediterranean, Spain, Cataluña.

Partner 1, ARCES Association, Italy, Sicilia

Partner 2, Cyprus Chamber of Commerce and Industry, Cyprus

Partner 3, CDE Petra Patrimonia, France, Provence-Alpes-Côte d'Azur

Partner 4, National Agricultural Research Centre, Jordan

Partner 5, Business Development Centre, Jordan, Amman

Partner 6, Business Women Forum, Palestine

Partner 7, General Agency for Regional Development, Tunisia

HOW DOES THIS CATALOGUE CONTRIBUTE TO THE OVERALL OBJECTIVE OF THE CLUSTER PROJECT?

The CLUSTER project facilitates and arranges knowledge exchange; therefore, this catalogue presents an outline and guidance on the CLUSTER Training Programme which was developed in order to build the capacity of youth, NEETS and women, in the four sustainable economy fields.

This catalogue is also a tool to provide information and road map of CLUSTER's Training Programme to professional, technical, and vocational trainers, as well as education providers who are working in the empowerment and development of the sustainable economy sectors. Likewise, this catalogue is a reference for other trainers who are interested in the embedment of sustainable economy topics within their own training modules.

With this in mind, the catalogue aims to make them aware of the four training curricula developed under the CLUSTER project in order to train NEETs in these fields. At the same time, it proposes innovative approaches, combining good practices and methodologies (see Annex 3) already developed under other projects on which CLUSTER is capitalising; namely: [BlueSkills](#), [EGREJOB](#), [HELIOS](#), [Maharat Med](#) and [RESMYLE](#) (see Annex 1).

Chapter 2: Why Sustainable Economy and Why this Catalogue?

THE CORE OF SUSTAINABLE ECONOMY: UNITED NATIONS – SUSTAINABLE DEVELOPMENT GOALS

According to the [Sustainable Development Goals \(SDGs\) Report 2022](#), the working poverty rate rose for the first time in two decades by 0.5% from 2019 to 2020, which resulted in pushing additional eight million workers into poverty. Women accounted for 39% of total employment in 2019, however women constituted 45% of global employment losses in 2021.

More than 733 million people lived in countries with high and critical levels of water stress in 2019. Adding on this, the share of renewable and sustainable energy of the total energy consumption was only 17.7% in 2019. The global economic recovery is harmed by new waves of COVID-19, rising inflation, supply chain disruptions, political uncertainty, and labour market challenges, where the global unemployment rate reached 6.2% in 2021.

The unsustainable patterns of consumption and production are the root cause of climate change, biodiversity loss and pollution. 13.3% of the world's food is lost after harvesting and before reaching retail markets, meanwhile 17% of food is wasted at the consumer level. Energy related CO2 emissions increased by 6% in 2021, reaching the highest level ever. Rising global temperature continues unabated, leading to more extreme weather. Climate change continues to have its negative impact on food security, coral reefs, sea level, drought and its related displacement for millions of people. In this context, a 40% increase of medium to large-scale disasters is expected from 2015 to 2030.

The droughts, floods and heatwaves brought on by climate change are putting added pressure on food production in many regions of the world. Parts of Africa and Central and South America are already experiencing increased, sometimes acute, food insecurity and malnutrition due to floods and droughts. Other projected impacts include devitalized soils, increased pest infestations and disease, as well as weakened ecosystem services, such as pollination.

Agricultural expansion is driving almost 90% of global deforestation, including 49.6% from expansion for cropland and 38.5% for livestock grazing. Thus, new and innovative agricultural methods are urgently needed.

In light of these facts, and to make the world a more liveable place for the generations to come, the CLUSTER project intersects and pours directly and indirectly to the SDG, specifically:

- SDG 1: No poverty
- SDG 5: Gender equality
- SDG 8: Decent work and economic growth,
- SDG 12: Reasonable consumption and production
- SDG 13: Climate action
- SDG 15: Life on land

HOW DOES CLUSTER ADDRESS THE SDGS?

The CLUSTER project aims and looks forward to through its activities to a cross-border cooperation at the level of the seven participating countries to achieve economic growth, social inclusion and environmental protection by taking a step forward towards the SDGs 2030. Hence, this TVET-oriented catalogue is prepared to further strengthen trainers' capacities to lead training and coaching programmes in specific topics related to the four sustainable economy sectors targeted by the project: Blue, Green, Circular Economy and Sustainable Agriculture. Furthermore, this catalogue successfully contributes to the equipment of young NEETs and women with the knowledge, skills and professional tools related to these fields.

This would in turn enable them to access the labour market and contribute to the promotion of the sustainable economy. This catalogue is part of the kit offered to the young people and women who find themselves in a precarious situation, with the objective of emancipating them, improving their employability opportunities in innovative niches and opening up new horizons.

Indeed, capacity building in these fields is relevant, as many needs for new jobs are appearing and the related skills are missing. In this framework, it is clear that offering training to trainers of the sustainable economy sectors will create:

- New opportunities for TVET institutions;
- Higher rate of employability for the trainees (18-30 and 18+ women) by providing them new skills and encouraging them to develop their own business ideas;
- A more sustainable society for the next generations.

THE ROLE OF TVET INSTITUTIONS

TVET institutions are expected to meet multiple economic and social needs by helping young people, adults and women to develop the skills needed for employment, decent work and entrepreneurship.

They are also key players in the transition to sustainable societies and greener economies. In most project partners state, TVET institutions have undergone major transformations to meet the changing demands of labour markets and the need for sustainable development. However, in the context of the COVID-19 crisis with its multiple dimensions, skills development and labour markets are being redefined and TVET institutions are called upon to devise innovative strategies to meet current challenges and prepare for the future evolution of work ([Medium-term strategy for 2021-2023 - building capacity and cooperation in Technical and Vocational Education and Training in member states - unesco.org](#)).

TVET institutions are in this sense essential actors to meet the SDGs, and mainly SDG 4, to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.



Target 4.3: ensuring equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university.



Target 4.4: substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship.



Target 4.5: eliminating gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations.

TVET INSTITUTIONS FOR NEW SKILLS TOWARDS NEW JOBS

The focus of CLUSTER project is on equipping all youth, adults and women with the skills required to not only find decent work and develop entrepreneurial and innovative mindsets, but also to become active citizens in an equitable, inclusive and sustainable society.

Thus, CLUSTER project is participating to meet SDGs 1, 5, 8, and 13 as stated above, in addition to SDG 9 (“Industry, innovation and infrastructure”) and SDG 17(Strengthening the means of implementation and revitalizing the global partnership for sustainable development”) for inclusive and peaceful societies ([Transforming Technical and Vocational Education and Training for successful and just transitions - UNESCO Strategy 2022-2029](#)).

TVET institutions are supposed to connect education with the labour market. They are important actors in gaining awareness and behavioural changes in all sectors in order to respond to employers’ demand for trained employees on environment protection. They can develop specific modules on environment protection to gain markets of training on these specific domains.

Indeed, TVET institutions can have a great impact through their adaptation of training courses:

- with awareness-raising (make reference to sustainable development in all curricula and not only in jobs targeted with SD, these references can be made through green gestures or [Eco-citizenship initiatives](#);
- for changes in professional practices due to the relation of the job with green transition, the so-called greening jobs;
- In deep as the activity is at the core of the protection of the environment - green jobs - like waste, energy or pollution management, agriculture and agroecology, plastics and composites, building sector, chemistry, etc. with the integration of public policies and regulations related to sustainable development (having sustainable practices in the exercise of one’s profession);
- Or even build new training courses like eco-design, maintenance of windfarm or any new need identified by the market.

Chapter 3: CLUSTER Capacity Building Programme

According to the 'Green Job Database' developed under the [EGREJOB ENPI CBC Med Project](#), several new jobs will be needed to boost the green transition and to achieve the 2030 'Green Deal' goals*. In that sense, new skills are expected in the labour market. The role of TVET institutions in this development is prominent (see Annex 4).

Green Economy and Agriculture

- Organic agronomists
- Energy managers
- Project managers for incentive management
- Farm and home management advisors
- Forest and conservation workers and technicians
- Soil and Plant Scientists
- Eco-innovation experts
- Bio-agriculture experts
- Geothermal production managers
- Wind energy engineers
- Solar energy systems engineers
- Food safety and quality experts
- Food supply chain technicians

Circular Economy

- Waste transformation and disposal implant design engineers.
- Waste collection and transformation technicians
- Environmental recovery and remediation technicians.
- Industrial ecologists
- Recycling and reclamation workers
- Recycling workers and coordinators
- Brownfield redevelopment specialists and site managers
- Biofuels/biodiesel technology and product development managers
- Biomass power plant technicians and managers

Utilities

- Renewable energy plants production and maintenance (technical profiles)
- Environmental engineers
- Bioenergy and bio-architecture specialists
- Project and smart grids experts
- IT device production specialists (i.e., monitoring switchboard, new generation electric meters).
- Power plant operators
- Solar energy installation managers

Public Sector and Research

- New normative and regulation advisors (technical, judicial-economic profiles).
- Green New Deal programme management advisors
- Climate change analysts
- Environmental economists
- Environmental scientists and specialists
- Geoscientists
- Agricultural inspectors
- Regulatory affairs specialists
- EU/international funds project managers
- Urban and regional planners
- Biotechnologists

Blue Economy

- Aquaculture technicians
- Coastal tourism experts
- Marine biotechnology experts
- Energy engineers and technicians specialized in ocean energy
- Mining engineers and technicians specialized in seabed mining
- Marine and agrifood technology experts
- Environmental health and safety experts
- Aquaponics and hydroponics experts
- Water resource specialists
- Fishing tourism operators

*The EU Green Deal presents a roadmap for making the EU's economy sustainable by turning climate and environmental challenges into opportunities across all policy areas and making the transition just and inclusive for all. The European Green Deal aims to boost the efficient use of resources by moving to a clean, circular economy and stop climate change, revert biodiversity loss and cut pollution. It outlines investments needed and financing tools available, and explains how to ensure a just and inclusive transition. The European Green Deal covers all sectors of the economy, notably transport, energy, agriculture, buildings, and industries such as steel, cement, ICT, textiles and chemicals. <https://ec.europa.eu/eip/agriculture/en/news/european-green-deal>



CLUSTER

Based on the above emerging occupations, the CLUSTER project partners undertook desk and [field research](#) to define the training needs of young NEETs and women in the sustainable economy.

Similarly, they conducted field research as well as a [quantitative analysis](#) to assess the skills gap among the private sector and social economy actors, with a particular emphasis on the four sectors of Sustainable Agriculture, Blue, Circular and Green economy. At the same time, the potential of each sector was identified at each partner country level in terms of business development and job creation.

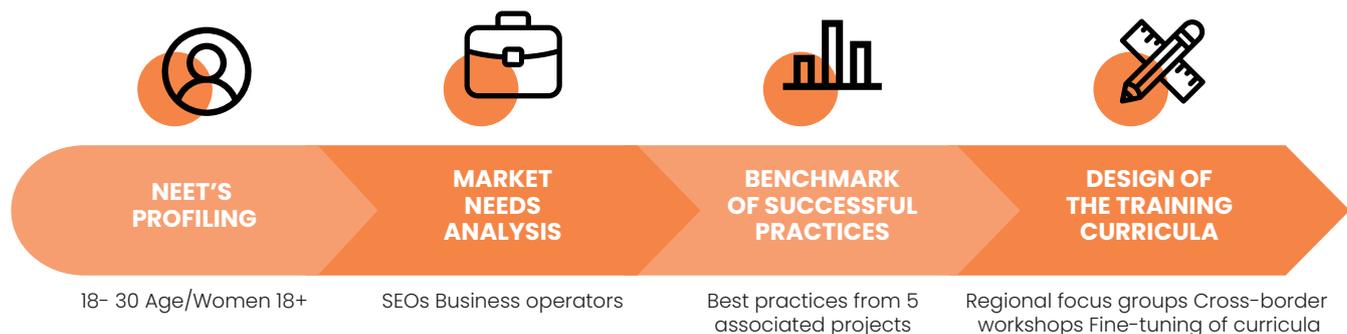
These led to the adoption and re-formulation of the below CLUSTER training curricula (please refer to Annex 2) which address the following sectors:

- Aquaponics
- Hydroponics
- Sustainable Food Processing
- Organic Farming

In addition to the above, the project decided to make use of a Soft Skills training programme too, as this was an important aspect stemming from the research phase of the project

EXCHANGE MECHANISM OF CLUSTER AND THE CAPITALIZATION PROCESS

With the active participation of stakeholders across the partner regions, and in order to create inclusive training materials, a series of [regional focus groups](#) were organised in the Mediterranean countries and regions where the project is being implemented, to discuss the materials' strengths and areas of improvement. These were followed by [two cross-border workshops](#) that were held in Amman, Jordan. Their goal was to debate, at the regional level, the results of these focus groups, to raise awareness at the cross-border level and finalise, through the feedback received, the Catalogue of new trainee-oriented Curricula in the field of sustainable economy. The process of developing the training curricula went through several stages which can be depicted as follows:



Thus, the CLUSTER project developed training curricula that correspond to the real needs of the market in the CLUSTER partner regions. This way, the trainee-oriented curricula will reduce the mismatch between the labour market demand and youth skills, increasing job opportunities for unemployed young people, especially women.

BEST PRACTICES CAPITALIZED BY CLUSTER FROM THE ASSOCIATED PROJECTS

CLUSTER capitalizes on [outputs produced and best practices](#) identified under five projects financed by other EU programmes (including ENI CBC Med), namely: BlueSkills, EGREJOB, HELIOS, Maharat Med and RESMYLE (see Annexes 1 and 3).

- [BlueSkills](#): Methods such as play-decide and gamification, training materials used in the Master and Summer school
- [EGREJOB](#): The Green job charter
- [HELIOS](#): E-learning platform and outlines of sector-oriented training curricula
- [Maharat Med](#): Training methodology, extracurricular activities and traineeship programme
- [RESMYLE](#): Mentoring process and approaches

TRAINING METHODOLOGY AND STRUCTURE

Based on the capitalization process, exchange mechanism and research phase described above, the CLUSTER training programme was designed with the specific purpose to address the unemployment of young NEETs and women in the project countries as follows:

Objectives:

- Training and upskilling young NEETs and women to cope with the needs of the labour market in four sustainable economy sectors;
- Reinforcing links between TVET institutions, the private sector and the social economy actors.

Addressed to NEETs:

- 18-30 age group;
- Women 18+.

Capacity building format:

1) Online trainings through CLUSTER's e-learning platform:

- Covering four sector-oriented topics (basic level); aquaponics, hydroponics, sustainable food processing and organic farming; as each of these 4 topics encompasses basic notions of Soft Employment Skills;
- The fifth topic will be an advanced module of Soft Employment Skills;
- The trainee will have the option to enrol in more than 1 of the 5 trainings;
- Each topic is 36 hours of asynchronous, self-paced training (own time-pace of learners);
- Blended online techniques with 2 recorded sessions for each topic;
- Available and accessible on the CLUSTER e-learning platform which will be multilingual (i.e., English, Arabic, French, Spanish, Italian, Greek);
- Open and available on the CLUSTER e-learning platform until 15 June 2023.

2) On-site sector-oriented advanced level training- the succeeding advanced training stage in CLUSTER building Capacity Programme:

- The on-time completion of the online training for the specific sector-oriented topic, that will be subject for the onsite training, is a pre-requisite for the trainee eligibility for this onsite advanced level training.

- 25 hours hands-on face-to-face advanced level training;
- Offered to the best 20 trainees selected from the online training phase for the related topic;
- At a venue suitable for face-to-face training with possibility to conduct practical exercises when applicable, OR at the premises of a business operating within the same training subject;
- Given by experienced trainers on the sector-oriented topics;
- Intensive training aimed at fostering collaboration skills and practical work.

3) Corporate Social Responsibility (CSR) Coaching as part of onsite trainings:

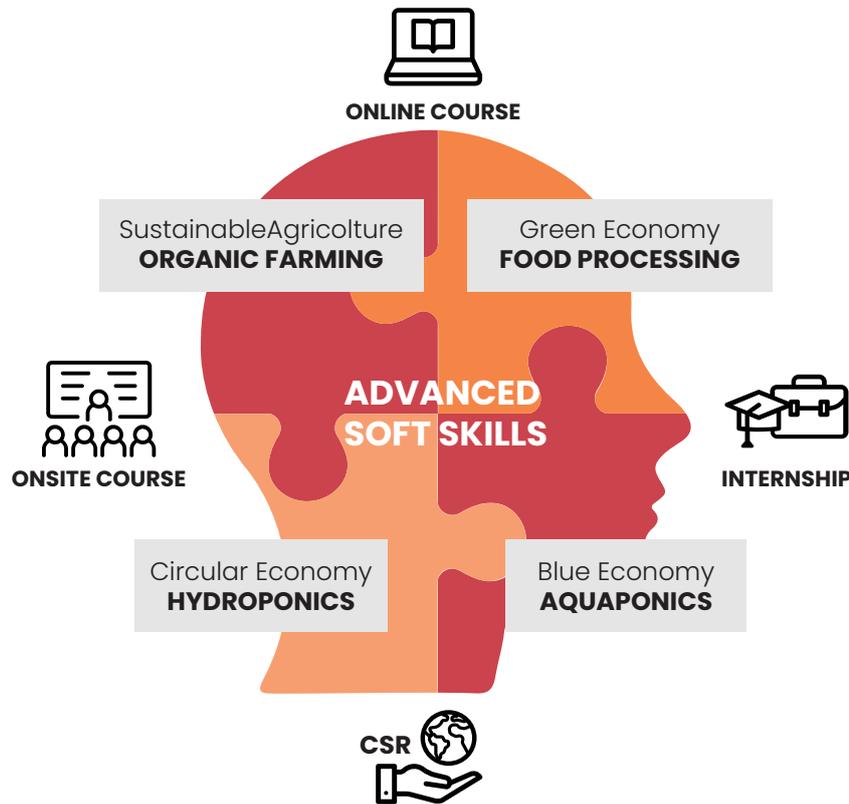
- Starts in parallel with the onsite training;
- Aiming to guide the onsite trainees to develop their CSR skills and knowledge
- Provided for all the 20 onsite trainees face-to-face coaching sessions –
- Provided by professional onsite trainers;
- Covered through 2 sessions as part of the onsite training:
 - during the 1st session, the onsite trainer will present the CSR initiative and give the trainees a group exercise of developing an initiative based on the learning material provided.
 - during the 2nd session, private sector representative(s) will be invited to either attend the onsite training in person or online, during which the trainees will present to these private sector representative(s) their developed CSR initiative and get feedback and be mentored by the private sector person who can also share with them their own company's CSR initiatives if they have any.
- During the CSR initiative design, the trainer will be available to provide guidance, coaching and mentoring to the trainees throughout the onsite training;
- CSR Coaching output: 1) a single well-designed CSR initiative preferably related to onsite sector-oriented training topic developed by the onsite trainees through the support of their onsite trainers and private sector representatives 2) Submitting the CSR initiative to SMEs for current or future implementation consideration 3) This CSR initiative might be a fundament for the potential creation of future youth association by the trainees.

4) Internship:

- Up to 3 months internship;
- Offered to the best 10 trainees selected from the onsite training per country;
- Supervised and paid through the CLUSTER project;
- Aimed to strengthen learners' working life skills;
- In the premises of a business operating in the field of the training;
- Under the supervision of the project team for the traineeship management process, and the trainers for the technical aspects and the employability skills performance;
- Taking into consideration the observations of the participants of the interchange scheme.

To summaries, the CLUSTER Training Programme ensures a high level of involvement and interaction with the SEAs and Business Operators in the fields of sustainable economy. The training will be first delivered through CLUSTER's e-learning platform consisting of recorded classes, examination and evaluation of performance of enrolled young NEETs and women. This online training will be followed by an advanced onsite training in one of the four sector-oriented topics embedded with coaching and mentoring of the trainees to create a CSR initiative. The programme will be completed by 10 internships per country.

The distinguishing aspect of the CLUSTER Training Programme is the interaction between trainees (young NEETs and women), trainers and the private sector through the interchange scheme. This triple continuum forms a core for a better connection that responds to the needs of the economic actors.



SELECTION, ASSESSMENT, EVALUATION AND CERTIFICATION

Application assessment and enrolment selection:

- Enrolment terms and requirements will be announced on the CLUSTER e-platform and website, as well as in the official public call for trainees; interested and potential applicants will be able to determine their eligibility, bearing in mind that the most important criterion is to be a "NEET" at the time of enrolment and to fit the project targeted age group;
- In the online training, the eLearning platform will automate the selection criteria, however in the succeeding training programme stages the selection committee comprised of the project partner and the hired trainers will be responsible for setting the criteria for assessment and selection.
- Selection will be based on the information provided by applicants during the registration phase, based on predefined criteria;
- Applicants will select the training topic they are interested in (each applicant will have the option to enrol in at least one of the five topics).

Assessment procedure of the online training phase and qualifying for the onsite training:

- The trainers and project partners will co-design, co-prepare and/ or co-review the assessment forms, assignments and evaluation criteria for the completion of the online training phase and for the selection and qualification for the on-site training;
- The CLUSTER e-platform will put in place automatic completion quizzes, exercises and assignments for the online courses; where the completion result will be generated automatically and reviewed by the trainers;
- The assessment of this phase will include the achievement on the level of training course (the sector-oriented topic and the soft skills module);
- The best 20 trainees who successfully complete the online training - of the sector-oriented topic selected for the onsite training- on time will be enrolled in the onsite training.

Assessment procedure of the onsite training phase and qualifying for the internship:

- The trainers and project partners will co-design and co-prepare assessment forms, assignments and evaluation criteria for the completion of the onsite training phase and for the selection and qualification for the internship;
- The trainers will conduct the evaluation and finalize the selection of the best 10 trainees to participate in the internship;
- The CSR initiatives will be evaluated by the trainers and private sector representatives through predefined evaluation criteria.

Assessment of interns' progress:

- The trainers, the hosting enterprises, and the project team will jointly evaluate the performance of the interns during the internship period, to monitor and level up the interns' performance during the internship period as well as to improve the programme in the future;
- Report and evaluation templates will be shared with the host to evaluate the interns over the internship period;
- The trainees will be required to submit periodic reports summarizing their lessons learned and skills developed.

Certification:

- Enrolled trainees in the online training will be granted certificates of participation and accomplishment upon their completion of training, uploading all assignments and assessments per training topic;
- For the onsite training trainees who attend at least 80% of the sessions and successfully pass, the assessment will be granted certificates of participation and accomplishment;
- The same goes for the CSR initiative; the onsite training completion certificate will include this aspect;
- As for the internships, interns will be granted internship certificates and recommendation letters by the host companies upon successful completion of their internships;

TRAINING PLATFORM

The CLUSTER e-learning platform is a website using a blended training methodology combining self-paced, recorded and asynchronous learning. The e-learning platform is available in 6 languages: Arabic, English, Spanish, French, Greek, and Italian.

The CLUSTER e-learning platform will:

- Offer a complete learning experience that is fun, interactive, and ultimately engaging;
- Increase outreach by making training easier to access for different age groups in other geographical areas, with flexibility for trainees to commit in their free time.

The platform will provide the following services:

- Online submission of trainees' applications and at a later stage their assignments and quizzes;
- Selection of trainees based on pre-defined evaluation criteria; Innovative learning tools and methodologies supported by new technologies (social media, mobiles);
- Automatic certificates generated upon the online training completion.

TRAINING GUIDELINES

Online training:

- The first recorded session includes; ice breaker, defining training themes, terms, learning objectives (knowledge, skills and behaviours), outcome, sustainable economy orientation, strategic importance and principles, technical considerations, deadlines, closing and reminders;
- The last recorded session includes; summary, feedback recommendation, orientation about next steps;
- In between; the trainers should fulfil the training requirements in asynchronous learning within the training opening timeframe including, reading the material, doing the exercises, and passing the examinations.

On-site training:

- Advanced level material requiring more interactive training tools, including hands on exercises, games, role playing, field visits, role modelling related to the sector-oriented topics;
- Considering -when applicable- "learning by doing". Indeed, based on an active pedagogy: each time a new concept is introduced, it is developed step by step with exercises and experimenting as much as applicable.

CSR coaching:

- Follow the CSR toolkit (see Annex 5)

Internship:

- Follow the internship toolkit (see Annex 6)

HOW DOES CLUSTER CREATE BRIDGES BETWEEN TVET INSTITUTIONS AND THE PRIVATE SECTOR?

One of the main activities within the CLUSTER project which intersects with the training programme is the interchange scheme. This scheme is designed to foster communication, networking, knowledge exchange between the Private Sector and TVET institutions, as well as to enrich the training programme by the observation and feedback received from this kind of exchange.

Within the frame of this scheme, trainers are welcome to spend time in businesses operating in the four sustainable economic sectors to better understand sector needs. Likewise, Private Sector representatives are welcome to spend time at TVET institutions to upscale their connection with the emerging skills, techniques and new trends in training and sustainability concepts.

WHY IS IT A COMPREHENSIVE CAPACITY BUILDING PROGRAMME?

CLUSTER's training programme provides the below advantages that make it a comprehensive, realistic and gap-bridging programme:

- Holistic approach combining virtual and face-to-face training;
- Interactive and engaging design, backed with multidimensional communication between project's partners, local stakeholders, trainers, trainees and private sector;
- Combine basic and advanced levels; basic level on the sector oriented online training, advanced level in the advanced soft skill training and in the onsite training phase;
- Mentored self-learning at the online training phase; that stimulate the trainees to consider this approach as continues improvement style. CLUSTER training programme designed in a way ignite the curiosity about the training technical topics thus self-learning approach would be highly encouraged;
- Encourage and develop group working and collaboration on the onsite training and the CSR designing;
- Imbedding CSR initiative to graduate more social sensitive and oriented trainees.
- Global topics on sustainable economy, with localized material customized by local training consultant and trainers;
- Interactive training tools includes; group discussion, exercises, visual training; photos, videos, peers learning, online training chat platform, experiments; and local examples;
- Connect trainees to labour Market with real life experience.

ANNEXES

ANNEX 1: SUMMARY ABOUT THE ASSOCIATED PROJECTS CAPITALISED WITHIN CLUSTER FOR CATALOGUE CURATION

HELIOS: enHancing thE social Inclusion Of neetS is a project focusing on the Blue and Circular Economy (BaCE), identified as an economic sector with great potential for a regenerative economic growth among NEETs. The project is providing curricula for innovative targeted and tailored skills training courses oriented towards specific needs of the BaCE labour market and the needs of NEETs, based on direct interaction with local enterprises.

This is achieved through soft skills coaching and mentoring actions, as well as creating e-learning tools and methodologies supported by new technologies to facilitate skills learning for NEETs and women. The project is financed under ENICBCMED programme by EU and is implemented under the lead of E.M. Association ARCES between 2019 and 2023

For more information: <https://enicbcmed.eu/projects/helios>

EGREJOB: Euro-mediterranean GREen JOBS" EGREJOB" is a project aims to promote a more sustainable development model through the promotion of green jobs in the Mediterranean. In particular, the transition from a traditional economy to a more sustainable economy, in terms of environmental, social and economic impacts, results in a process of transformation in which the work resource takes a strategic position.

The project was funded by ENPI CBC MED PROGRAM and was implemented with CLUSTER partner The General Agency for Regional Development between 2007–2013

For more information: <http://www.enpicbcmed.eu/sites/default/files/egrejob.pdf>

BLUE SKILLS: Blue jobs and responsible growth in the Mediterranean throughout enhancing skills and developing capacities. "BlueSkills" project promotes opportunities for "Blue" marine and maritime careers by developing skills, exchanging knowledge and valorising research for a more sustainable Mediterranean Sea. Its aim is to develop new curricula and increase employability in the marine and maritime sectors.

By supporting the Euro-Mediterranean communities of the Blue Economy stakeholders through higher education, research and innovation, the project will enhance the shared knowledge of the Mediterranean Region.

The project is fully funded by the Italian Ministry of Universities and Research (MUR) and is implemented by the National Institute of Oceanography and Applied Geophysics (OGS), between 2019 and 2023.

For more information: <https://blueskills.inogs.it/content/blueskills-new-label-union-mediterranean>

Maharat: Maharat Programme was designed and created by Business Development Centre BDC in Jordan and implemented with the support of USAID to respond to the need for employment and job creation through enhancing youth employability and promoting entrepreneurship. Maharat program included two main innovative learning pillars to facilitate successful school-to-work transition, the Employment Pillar and the Self-employment Pillar.

In addition to a complementary set of elective teambuilding extracurricular activities, the project was funded by the USAID and was implemented by CLUSTER partner BDC between 2005 and 2012. Based on Maharat, BDC Developed Maharat Med which is a 3 year ongoing Programme in line with the UfM flagship Mediterranean Initiative for Jobs (Med4Jobs), to help increase the employability of young people and women, close the gap between labour demand and supply, and foster a culture of entrepreneurship and private-sector development.

For more information: ufmsecretariat.org

RESMYLE: Repenser l'emploi et l'insertion sociale des jeunes méditerranéens à travers le développement (Rethinking Employment and Social inclusion of Mediterranean Young people through Local sustainable development) durable project mobilizes 9 Mediterranean operators (cooperatives, associations, universities) in 5 countries (France, Italy, Jordan, Lebanon and Tunisia) around 3 complementary areas of intervention:

- 1) the inclusion of sustainable development topics in the support actions carried out by the organizations (associations, social canterers working on integration of NEETS in the Mediterranean);
- 2) the testing of a set of hands-on field trainings for young people focusing on sustainable development and based on mobility, intercultural exchanges and real environmental issues;
- 3) the creation of a Mediterranean network of eco-incubators of youth-led activities based on a common method and shared tutoring/trainings.

The project is financed under the European Program ENI CBC MED 2014-2020 and implemented under the lead of Coopérative d'Activité et d'Emploi Petra Patrimonia – CDEPP between 2019 and 2023.

For more information: <https://enicbcmed.eu/projects/resmyle>

ANNEX 2: CLUSTER'S TRAINING CURRICULA OUTLINES

1st Module: Aquaponics

Introduction:

- Aquaponics, Aquaponics system, Aquaculture
- Aquaponics benefits, advantages and food benefits
- weakness and disadvantages of aquaponics
- Aquaponics and hydroponics: future of agriculture
- components of Aquaponics system
- Types and shapes of fish farming tanks in aquaponics
- Basic materials Types and shapes of plant growing basins
- Basic material of deep-water culture

Operational materials in aquaponics:

- Production components
- The mechanism action of the aquaponics system
- The importance of the biological cycle
- beneficial bacteria (Nitrobacteria)

Introducing and raising fish in Aquaponics:

- Fish transportation and acclimatization
- Fish Feed and breeding
- Duration of fish cycle in aquaponics
- Types of fish raised in aquaponics
- Fish health precautions
- Selection of the agricultural medium (growth medium)
- Types of plants that can be grown in the aquaponics system
- Aquaponics systems and basins

Deep Water Cultivation Technology DWC (Floating Ponds):

- Nutrient Film Technology (NFT) System
- Filtration - mechanical and biological

Aquaponics growing beds:

- Bio-Balls
- The water cycle in the Aquaponics system
- Rotate the system and start the bio filter colony

Bacteria in Aquaponics systems:

- Mineralization
- dissolved oxygen
- Ultraviolet (UV) rays
- Balancing the ecosystem in the aquaponics system

2nd Module: Hydroponics

Introduction:

- Why Hydroponics

Hydroponics production size of a country:

- World soilless production systems and crops grown
- The most important advantages of soilless farming systems
- Productivity of a few greenhouse crops in some Mediterranean countries
- The most important advantages of soilless farming systems

Water use efficiency (WUE) of some greenhouse crops in the Mediterranean countries:

- Nitrogen use efficiency of some greenhouse crops in the Mediterranean countries
- Water consumption per crop in soil and Hydroponics systems under greenhouse conditions
- Hydroponic Technology Benefits
- Hydroponics & Sustainability
- Crops to grow in soilless agriculture
- Types of Hydroponics Systems

Substrates used in hydroponics:

- Rockwool, cocopeat (coir), perlite, vermiculite, expanded clay, peatmoss
- Soilless open system
- Soilless closed system
- Soilless system types
- Ecology and growing systems
- Basic parts of hydroponic systems

Hydroponic growing systems:

- Nutrient Film Technique (NFT)
- Wick system, drip system, Ebb & flow, Aeroponics system
- How to choose hydroponics system

Fertilization and watering techniques:

- Effect of water source on nutrient solution shelf-life
- Water quality and hydroponics system management

Nutrient deficiency symptoms:

- Functional rules and deficiency symptoms of common plant nutrients

Essential nutrients supplied by liquid hydroponics fertilizers:

- Interactions between nutrients
- Nutrient's solution formula for closed hydroponics system
- Micronutrients formula for closed hydroponics system
- Dr. Alan Cooper's mix of nutrients for hydroponics and soilless agriculture in an amount of 1000 L.

Green roofs:

- What is meant by Green Roofs?
- Why is Green Roofs planting?
- Green Roofs benefits and impact
- Green Roof or Living Roofs
- Green Roofs Forms (Examples)
- Practical training in soilless agriculture
- Preparation of nutrient solution
- Nutrient solution for some vegetables and strawberry

3rd Module: Organic Farming

Introduction

Principles of organic farming:

- Health principle
- Environmental principle
- Principle of justice

The importance of organic farming

Sustainability:

- Environmental sustainability
- Social sustainability
- Economic sustainability

Organic farm site:

- Standards for the surroundings of the farm
- Standards for the farm
- Quality standards for irrigation water

Conversion to organic farming:

- Conversion phase
- Preparatory steps for conversion

Conversion steps:

- Gather the correct information
- Site analysis
- Knowledge and application of organic agricultural practices
- Complete transformation of organic farming
- Crop selection criteria during conversion
- Conversion period

Management in the organic farm:

- Characteristics of a successful organic farm manager
- The important things that a farmer must make decisions about when starting to work in organic farming

Crop management:

- Crop rotation
- Benefits of using crop rotation
- Crop rotation standards
- Intercropping
- Cover crops

Soil cover management:

- Benefits of using soil covers
- Soil Cover Sources

Water management:

- How do we conserve water in the soil?
- Water harvesting
- Water storage
- Drip irrigation
- Weed management
- Weed management methods

Soil fertility management:

- Organic fertilizers
- Compost and worms
- Compost benefits

Factors affecting the manufacture of compost:

- Signs of compost maturity
- How to add compost?
- Compost manufacturing methods
- Large-scale commercial manufacturing
- Small-scale manufacturing

Green manure:

- Green manure features
- Adding green manure
- Animal dung
- Microbial fertilizer
- Mineral fertilizers

Pest and disease management:

- Prevention practices
- The natural enemies
- Mechanical control
- Biological control

- Natural pesticide
- Organic Farm Records
- Records type
- Organic agriculture certificate:
- What is the benefit of obtaining a certificate
- Steps to obtaining a membership certificate
- Violations and penalties

Organic agriculture certificate:

- What is the benefit of obtaining a certificate
- Steps to obtaining a membership certificate
- Violations and penalties

4th Module: Food Processing

Introduction

Food safety

Getting food safety wrong

Healthy food

Food safety responsibility

The hazard

The control points

HACCP

Cross contamination:

- Preventing cross contamination
- Food poisoning

Good Manufacturing Practices (GMP):

- Difference between GMP and current GMP
- Domain coverage practice
- The 5 main components of GMP
- Advantages and Benefits of GMP
- Principles and rules of GMP
- Documentation system
- Standards

Basic Soft Employment Skills curriculum outline that will be included in the above 4 sector-oriented trainings:

Job management:

- Planning and building effective indicator
- Self-learning
- Business Ethics and Etiquette
- Dealing with change and understanding workplace culture

Job search skills:

- Resume writing
- Job Interview
- Identify future skills Competency

5th Module: Advanced level Soft Employment Skills

Identify and achieve personal goals:

- Personal Goals Development
- The Knowledge acquisitions
- Skills building
- Enhance thinking skills

Build your own success story:

- The efficiency of positive thinking
- Responsibility
- Self-discipline
- Resilience and endurance

Managing emotions in the work environment:

- Communication
- Teamwork
- Emotional Intelligence
- Problem-Solving Skills

Job management:

- Planning and building effective indicator
- Self-learning
- Business Ethics and Etiquette
- Dealing with change and understanding workplace culture

Job search skills:

- Resume writing
- Job Interview
- Identify future skills Competency
- Future skills and work

ANNEX 3: GREEN DEAL

The website link for the Green Deal, Communication from the European Commission

[The European Green Deal Brussels, 11.12.2019 COM \(2019\) 640 final](#)

ANNEX 4: COMPILATION OF IDENTIFIED EFFICIENT PRACTICES

The website link for the Compilation of identified efficient practices report on CLUSTER library

[CLUSTER Output 3.4 - Compilation of identified efficient practices](#)

ANNEX 5: CSR TOOLKIT

[CSR Toolkit](#)

ANNEX 6: INTERNSHIP TOOLKIT

[Internship Toolkit](#)



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