



# **Mediterranean Youth, NEETs and Women Advancing Skills, Employment and Awareness in the Blue and Green Economy (MYSEA)**

## **Student's Handbook**



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## 1. THE MYSEA PROJECT AND ITS BENEFICIARIES

MYSEA project promotes social inclusion and fight against poverty by increasing the employability of 1000 youth (18-24 years old), women (all ages) and NEETs (up to 30 years old) in the agrifood and waste management in five Mediterranean countries. MYSEA aims to provide the youth, women and NEETs with the marketable skills to boost their employment rates, make career choices and improve their life. MYSEA builds on the outputs of WP3 to design a total of four cross-border training curricula aiming at the enhancement of transversal skills, digital skills, sector-related skills and entrepreneurial skills. The training programmes will be translated into the five consortium languages (AR, GR, IT, ENG, FR).

The training intends to bridge the skills gaps between labour market needs and supply and equip participants with the much-needed competencies to embark on an entrepreneurship journey through founding their own associations. MYSEA foresees a total of 15 association launched at the end of the project following a total of 350 hours of mentoring and coaching with leading mentors to strengthen personal skills and offer career guidance for promoting safe employment options. MYSEA aims to align the experience gap. Trained and mentored individuals will have opportunities to enhance their soft and hard skills through the training and mentoring activities. To achieve this objective the project is structured in two phases:

1. In principle, the Partners gathered all relevant information about the skills that the Primary Beneficiaries already possess and the ones most required by the Economic Actors of the Blue and Green Economy in every Country, to identify the gaps.
2. The second includes the development of 20 modules for the development and/ or enhancement of the necessary knowledge, skills and competences required to integrate in the labour market and are based on the following 4 cross border topics:
  - Transversal skills;
  - Digital skills;
  - Sector Related skills;
  - Entrepreneurial skills

In particular, Youth, Women and NEETs have been identified as the Primary Beneficiaries of the project because they are strongly disadvantaged and underrepresented in the labour market. They are facing high unemployment rates, have scarce work opportunities (especially the graduates and the skilled youth compared to their level of qualifications), have lower quality jobs and are paid lower wages (especially women) compared to the average.

On the other hand, Agri-food and Waste Management are two of the most important sectors for creating job opportunities and attracting investments in the future in the participating countries, given that the European Union and the international Governments are significantly promoting the Blue and Green Economy. The international Communities are concerned about the impact of the current consumption levels, about inequalities that are affecting specific population groups and areas in the planet, about global warming and the consequences of climate change and they are asking for producing and consuming in a more sustainable way. They are fostering the application of the Circular Economy Concept and the Eco-Responsible Innovation, which are key concepts for the design of the modules and training courses of the Skills Development Agenda.

The selected primary beneficiaries of the project (Youth, Women and NEETs) are characterised by a high degree of heterogeneity, in terms of age, field of specialisation, skills and general background. For this reason, the consortium partners have decided, based on the findings of the research carried out, to develop the selected modules in such a way so as to be attended by both low skilled participants and highly skilled ones across all the PPs Countries.

## 2. INTRODUCTION

This Handbook is intended to provide a concise reference and guide for the target groups of the MYSEA project who will attend the Digital Skills Trainings. In particular, the handbook may serve as a reference document to help the target groups navigate through the different modules of the training package, understand how they have been structured, what they will be expected to learn by the end of each section and where they could look for additional information to further enhance their newly acquired knowledge, skills and competencies.

In today's fast-paced digital age, digital skills have become a necessity for businesses of all sizes, including small and medium enterprises (SMEs), the agrifood sector, and waste management. The integration of technology into all areas of business operations has made it imperative for individuals and organizations to have a solid understanding of digital tools and platforms. In the SME sector, having a strong online presence is essential for reaching and engaging with customers and, thus, digital skills such as website creation and management, as well as social media marketing, play a crucial role in building and promoting a brand. In the agrifood sector, digital tools can be used to streamline supply chain management and improve the overall efficiency of operations. From using software to track inventory levels to utilizing drones to monitor crops, digital skills are necessary to take advantage of the latest technological advancements. As for waste management, digital skills are also essential for optimizing processes and reducing waste. For example, digital tools can be used to track waste collection and disposal, reducing the risk of waste being dumped illegally and increasing transparency in the sector.

In conclusion, digital skills are increasingly becoming a necessity for businesses and individuals in the SME, agrifood, and waste management sectors. Thus, investing in training and development in these areas, that are highly in demand in today's economy, can provide the Youth, Women and NEETs with a competitive advantage in the era of digitalization.

The MYSEA Digital Skills Training Package provides participants with a comprehensive understanding of digital technologies and their applications in the agri-food and waste

management sectors. The program is composed of 5 modules, each of which focuses on different aspects of IT skills and their role in promoting entrepreneurship and innovation in the respective sectors. Participants will receive theoretical and practical knowledge on topics such as social media marketing, digital agriculture, web-design, and emerging technologies. Overall, the training package aims to equip participants with the necessary skills and competencies to understand and utilize digital technologies to achieve their desired outcomes, while it provides participants with hands-on experience and a comprehensive understanding of how to apply digital technologies to create, deliver and capture value for customers, as well as promoting innovation and sustainability within organizations.

The purpose of this handbook is to create the conditions for a successful participation at the Digital Skills Trainings, while also contribute to the sustainability of the complete MYSEA training programme, by providing access to an innovative didactic tool designed especially for the aforementioned, while also attracting more learners and providing more effective educational services. In addition, the handbook aims at promoting digital skills education considering the current needs of the labour market.

The MYSEA consortium has developed all training packages to be delivered through the design thinking (DT) process, which presents significant benefits to both participants and trainers. DT is the process of identifying challenges, gathering information, generating solutions, testing them, and repeating the cycle in order to refine the final product. The participant will come across selected case studies that may challenge the way they think and react to different situations. The case studies are structured in a multi-levelled approach, including different types of complexity and focused on further enhancing each skill addressed.

### 3. DIGITAL SKILLS TRAINING PACKAGE STRUCTURE

#### 3.1. Basic IT Skills

This module, called "Foundation Module for IT Skills," is designed as an introductory training for basic IT skills. It covers both theoretical and practical knowledge related to digital transformation, technology and decision making, social media marketing, and cybersecurity in the agri-food and waste management sectors. Theoretical knowledge includes identifying the components of digital transformation in these sectors, understanding the principles of social media marketing and the fundamentals of cybersecurity. On the other hand, practical knowledge includes learning about digital solutions that facilitate day-to-day work and virtual collaboration as well as basic marketing and social media tools that are specific to the agri-food and waste management sectors. Additionally, the module will also cover basic tasks related to security such as protecting the device, data and communication. By completing this module, participants will become familiar with digital transformation elements that facilitate how work is carried out in the agri-food and waste management sectors, understand the basic principles of marketing and how to utilize social media to achieve marketing objectives, and know how to perform basic tasks that protect the device, data, and communications.

Overall, this module is about teaching various aspects of digital literacy, digital transformation, technology and decision making, marketing, social media tools, cybersecurity, and their applications in the agri-food and waste management sectors. After the successful completion of this module, the learners are expected to:

- Become familiar with digital transformation elements that facilitate how work is carried out in the agri-food/ waste management sectors
- Understand the basic principles of marketing and how to utilise social media to achieve the marketing objectives
- Know how to perform basic tasks that protect the device, the data and the communications



More specifically, this module includes the following sections:

- Unit 1 provides an overview of digital literacy including definitions, types, skills, and employable skills. It also showcases digital solutions for businesses and collaboration with self-assessment and quiz.
- Unit 2 explains digital transformation, its benefits and importance, and its trends. It also highlights digital transformation in the agri-food sector and waste management with a quiz.
- Unit 3 focuses on technology and decision-making, including its benefits and importance, useful tools, methods for improvement, and its applications in the agri-food and waste management sectors. It includes an assessment.
- Unit 4 covers social media marketing, including its objectives, importance, and principles, basic tools, and how it applies to the agri-food and waste management sectors. It features a group activity.
- Unit 5 delves into security and cybersecurity, including their fundamentals, best practices, and applications in the agri-food and waste management sectors. It concludes with a final test.

### 3.2. IT Skills for the Agri-Food sector

This module, called "IT skills for the Agri-food sector," focuses on providing theoretical and practical knowledge related to technology in the agri-food sector. It covers topics such as the digital agriculture revolution, Agriculture 4.0 and digital farming, digital agripreneurship and innovation culture, as well as the Internet of Food and Farming 2020. Participants will also have the opportunity to gain practical knowledge in areas such as robotic systems, temperature and moisture sensors, precision agriculture, GPS technology and smart farming and food security. By completing this module, participants will understand key concepts around the digital agriculture revolution, become familiar with different digital tools and how they can benefit the agri-food sector, and know how to utilize different digital technologies to achieve desired objectives.

Overall, this module discusses the digital agriculture revolution, IoT applications in agriculture, and how digital tools can benefit the agri-food sector. After the successful completion of this module, the learners are expected to:

- Understand the key concepts around the digital agriculture revolution
- Become familiar with the different digital tools and how these can benefit the agri-food sector
- Know how to utilise the different digital technologies to achieve the desired objectives

To achieve these learning objectives, the module is structured in the following sections:

- Unit 1 provides an overview of the impact of digital agriculture and covers the main areas of digital agriculture, trends, and key concepts such as Agriculture 4.0 and digital and smart farming.
- Unit 2 delves into innovation and agri-preneurship, including what it is, its forms and importance, how it is connected to digital transformation, and steps to develop an innovation culture.
- Unit 3 covers precision agriculture, including technologies and techniques, benefits, and examples.
- Unit 4 explores the internet of things (IoT) in agriculture, including its technologies and applications in agri-food, benefits, and examples.
- Unit 5 focuses on big data analysis in agriculture, including its applications in agri-food, benefits, and examples.
- Unit 6 provides additional examples of digital agriculture, including robotic systems, temperature and moisture sensors, GPS technology, smart farming and food security, and challenges.

### 3.3. IT Skills for the Waste Management sector

This module, called "IT Skills for the Waste Management sector," focuses on providing theoretical and practical knowledge related to technology in the waste management sector. It

covers topics such as digital waste management, waste management 4.0, recycling, and sustainable waste management. Participants will also have the opportunity to gain practical knowledge in areas such as data analysis, e-waste management, and smart waste management systems. By completing this module, participants will understand key concepts around digital waste management, become familiar with different digital tools and how they can benefit the waste management sector, and know how to utilize different digital technologies to achieve desired waste management objectives.

Overall, this module provides an overview of the digital skills and technologies that are revolutionizing the waste management sector. It covers topics such as the digital revolution, advanced digitalization, circular economy, digital tools, IoT, big data analytics, robotics, AI, and cloud computing. In this context, the learners are expected to:

- Understand the ways in which digital transformation has contributed to the optimisation of waste management processes
- Know how the different technologies impact the sector
- Utilise the appropriate applications to achieve the desired objectives

The module is structured in nine different units, which are summarised as follows:

- Unit 1 provides an overview of the digital revolution in waste management and its impact.
- Unit 2 discusses advanced digitalization in waste management, including e-trading platforms and waste-specific software.
- Unit 3 covers the circular economy, including its principles and how it applies to waste management.
- Unit 4 covers various digital tools used in waste management, such as GIS, GPS, digital mapping, and digital twins.
- Unit 5 explains the Internet of Things (IoT) and its application in waste management.
- Unit 6 covers data analytics in waste management and its applications.
- Unit 7 covers the use of robotics in waste management and its applications.
- Unit 8 covers artificial intelligence in waste management and its applications.

- Unit 9 covers cloud computing and its application in waste management.

### 3.4. Web-design

The module “IT Skills for Web-design and Development” is created to provide theoretical and practical knowledge related to the design and development of websites. This module covers the topics relevant to the development of websites with user eXperience (UX), the Information Architecture (IA) in Web Design, and the Content Management Systems for B2B Websites. The participants will gain skills in UX strategy development and how it reflects on content & design, development of Information Architecture, and the target user needs and expectations. They will also learn to design and develop a B2B website.

By completing this module, the participants will understand the key concepts around the importance of web accessibility, the principles for a website which is functional, attractive and successful, and what is UX and strategy fundamentals.

After the successful completion of this module, the learners are expected to:

- Understand the principles and benefits of good UX and how to apply it to your website.
- Know how to develop the information architecture based on the UX strategy.
- Know how to develop a B2B website.

The module is structured in the following 4 Units:

- Unit 1: Introduction on: a) Provide information on the importance of Web presence, the Web Design, the Website building platforms (CMS). b) Website design basics, the visual hierarchy, page layout patterns, the Gutenberg diagram, the F-pattern, the Z-pattern, and Color Scheme. c) Software Development Life Cycle (SDLC), the Waterfall model, the Agile model, Component Based Software Engineering-CBSE.
- Unit 2: User-Center Design, User – eXperience Design, Case study: Design principles for the food and drinking industry, UX Design process, UXD steps, UX Strategy (Agile, Lean), Successful UX Design Factors, UX Design & UI Design, User Interface, the

importance of the UI design, UI design Factors, UI design process, and UI design essentials.

- Unit 3: Information Architecture, IA patterns, the importance of IA, Principles of IA.
- Unit 4: Introduction to E-Business, Business-to-Business, B2B online marketplace, Content Management System, Popular CMS Platforms, CMS Architecture, CMS Platform: WordPress, WordPress user's access, WordPress dashboard, WordPress Appearance, WordPress Template selection, WordPress Themes, WordPress functionality, WordPress customization by plugins, WordPress Widgets, WooCommerce, Wordpress Plugin: WOOcommerceB2B, WOOcommerceB2B (features, configuration, groups, costumers, products, invoice payment, purchase order, quick order page, hide process, RRP, Barcode, Prices Rules, Already Bought, Total Sales, Shippings Tab, Display Prices Tax, Show Customer Group).

### 3.5. SMEs Innovation

This module, called "Advanced IT Skills for Agri-food and Waste Management sectors," is designed to build upon the knowledge and skills gained in the previous modules. It focuses on providing advanced theoretical and practical knowledge in areas such as digital marketing, data analytics, and cybersecurity. Participants will learn about digital marketing strategies, data analysis tools and techniques, and advanced cybersecurity measures. This module also includes hands-on training in areas such as data visualization, website design, and e-commerce. By completing this module, participants will have advanced knowledge and skills in digital marketing, data analytics, and cybersecurity, and be able to apply these skills to real-world scenarios in the agri-food and waste management sectors.

Overall, this module focuses on IT skills in SME innovation. It covers key concepts and strategies for innovation in small and medium-sized enterprises, including entrepreneurship, digital transformation, and the use of emerging technologies. Overall, the learners are expected to:

- Have an awareness of the range of emerging and converging technologies that are poised to deliver disruptive innovations that improve SME sustainability and productivity
- Understand how their organization creates, delivers, and captures value for customers
- Design strategies for the creation of non-compete spaces
- Apply a continuous innovation model to improve their businesses
- Understand environment and the impact of change in the organisation
- Apply the knowledge obtained to design and carry out an action plan to boost innovation within the organisation

To achieve these objectives, the following sections have been developed:

- Unit 1: Provides an overview of entrepreneurship and innovation, including market analysis and value chain analysis. It also highlights the importance of a human-centered design thinking process and a strong entrepreneurial team.
- Unit 2: Focuses on the definition and importance of SMEs, as well as the characteristics, objectives, strategies, and challenges of SME innovation. It also covers IT skills and emerging technologies for SME innovation.
- Unit 3: Addresses the definition and factors influencing digital transformation in SMEs, including the use of digital technologies and big data in SME innovation. It also covers data sharing in SMEs.
- Unit 4: Explores the differences between innovation and entrepreneurship, business models and lean start-up methodology, customer value creation, and data-driven business models. It also covers the cognitive enterprise and change management.
- Unit 5: Introduces AI technologies and applications, benefits of AI for start-ups, and future trends in technology and innovation.

## 4. TRAINING APPROACH

The MYSEA courses are constructivist in nature. Learners are in the epicentre to the constructivist paradigm since they are active creators and constructors of their own knowledge. Active learning approaches are used, providing learners with a high degree of autonomy and control over the learning process. The outcomes of learning are based on a holistic, generalised idea of competence that is evaluated through the lens of the persons and their personalities and talents.

The following are the primary objectives in the MYSEA courses:

1. Trainees construct their own reality based on prior experience, mental structures, and beliefs.
2. It is critical for learners to have pre-existing beliefs and knowledge. They are investigated, addressed, and new knowledge is built upon during training.
3. Trainees reflect on their own experiences, assumptions, and expectations and practice critical thinking in a safe space by analysing and evaluating ideas and schemes. This enables them to have a new perspective on their profession.
4. Learners take ownership of their own learning by actively participating in the training process and exploring.
5. Trainers serve as facilitators, assisting trainees in constructing knowledge rather than simply reproducing facts. Problem-based learning, investigative work, situational learning, experimental learning, and action learning all play a critical role in this context. Facilitating discovery requires the provision of resources and the appropriate use of questions.
6. On-the-job training is critical because learners can work on real tasks while being coached by specialists.
7. Trainees acquire metacognitive abilities. They are able to analyse, monitor, and assess the learning process once they become aware of it. They must understand how to learn well through the development of effective learning strategies.

8. Collaborative learning is facilitated by encouraging group effort and collaboration in the process of knowledge construction, rather than competition. Peer learning and peer interaction are encouraged. Trainers are urged to give opportunities for participants with varying levels of expertise to learn from one another. There is a strong emphasis on discussion and debate.
9. Constructivism is receptive to many interpretations and manifestations of learning. Each trainee will interpret material differently, which is anticipated and acceptable.
10. The evaluation is performance-based and makes no claim to total objectivity. It is heavily weighted toward portfolios, projects, role-playing, case studies, and self-evaluation, among other things.

The variety of areas covered in the MYSEA training implies that the teaching approach should follow the principles for teaching ICT skills such as:

- Embedding and integrated: learning is related to the purposes and needs of learners. The development and application of ICT skills is integrated with other subjects, workplace activities and wider interests.
- Personalization: each learner should be offered an individual programme with opportunities for progression.
- Active learning: active learning methods are used to maintain motivation by ensuring that skills are applied in real and relevant contexts.
- Collaborative learning: encouraging collaborative learning whenever possible.

Online training has been developed to provide cost-effective and improved learning experiences beyond those available in classrooms. It is about the delivery of all activities of education such as instructing, teaching and learning through various electronic media. The appropriate instructional design, including the selection of appropriate theories and principles, is very important to the success of e-learning.

The benefits of online training cannot be overstated, providing greater flexibility, accessibility and cost-effectiveness compared to traditional classroom-based training. However, to ensure the success of the Digital Skills Training, it is crucial to adopt an inclusive and interactive



approach that leverages the latest instructional design theories and principles. This approach not only fosters active participation and engagement from learners, but also creates a supportive and inclusive learning environment that values diverse perspectives and experiences. By combining the advantages of online training with an inclusive and interactive approach, the Digital Skills Training can lead to better retention and understanding of information, improved collaboration and teamwork, and better application of knowledge in real-world situations. Overall, inclusive and interactive training approaches can lead to a more effective and enjoyable learning experience, and are important because they:

- Encourage participation and engagement of all learners, regardless of background, culture, or learning style.
- Foster a supportive and inclusive learning environment, where diverse perspectives and experiences are valued and respected.
- Improve retention and understanding of information, as learners are more likely to be actively involved in the learning process.
- Promote collaboration and teamwork, helping to build strong relationships and foster a sense of community within the group.
- Create opportunities for learners to practice and apply new skills, leading to better application of knowledge in real-world situations.

As for the assessment methodology suggested for MYSEA training courses, this is drawn upon a combination of constructivism assessment principles as well as more traditional ones. Thus, in this Digital Skills Trainings, formative and summative assessment as well as self-assessment are followed.

**Summative assessment** is a more formal style of evaluation that typically occurs at the conclusion of a course. Summative evaluation enables learners, trainers, and training providers to determine whether and to what extent the desired learning goals were accomplished throughout the training course. It contains the learner's final profile. Summative evaluation is

designed to facilitate reporting at the conclusion of training for certification purposes and has the form of multiple-choice quizzes and open-ended questions at the end of each unit.

**Formative assessment** serves as a monitoring mechanism, allowing trainers and trainees to evaluate progress, assess the effectiveness of training methods, and make required adjustments. In other words, formative assessment fulfils three critical functions. a) where learners are at in their learning process, b) where they need to go, and c) how they will get there. Formative assessment is a continuous cycle of activities that incorporates the following critical components: a) the establishment of defined goals that are shared with learners; and b) learners are at the centre of the process. c) learners assist in acquiring and interpreting evidence on target attainment, d) trainers (if available) and learners collaborate on next steps, and e) learners receive feedback that is utilized to adjust training. Thus, formative assessment has the form of case studies, group works and peer evaluation.

**Diagnostic assessment:** is used to determine the learners' current status in terms of knowledge, abilities, attitudes, and competencies, as well as any potential learning problems prior to the commencement of training. This enables the detection of learners' unique learning needs and the modification of training and has the form of self-assessment reports.

A combination of summative, formative assessment and diagnostic assessment is applicable throughout the learning procedure and to all phases of training and has a cumulative use. It is guided by the principles of the constructivism approach and the methods and tools used are described in the following sections.



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