



G R E E N W A V E  
*project*

# OPEN BADGES REPORT

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## CONTEXT

<b>Grant agreement</b>	2021-1-BG01-KA220-YOU-000028793
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<b>Action</b>	School Education
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<b>Project end date</b>	01/11/2023

## PROJECT CONSORTIUM

P1	BG	E-business Academy	
P2	PT	MARCA - Associação de Desenvolvimento Local	
P3	GR	ΑΙΝΤΕΚ ΣΥΜΒΟΥΛΟΙ ΕΠΙΧΕΙΡΙΣΕΩΝ ΕΦΑΡΜΟΓΕΣ ΥΨΙΛΗΣ ΤΕΧΝΟΛΟΓΙΑΣ ΕΚΠΑΙΔΕΥΣΗΣ ΑΝΩΝΥΜΗ ΕΤΑΙΡΕΙΑ	
P4	IE	CCS DIGITAL EDUCATION LIMITED	
P5	CY	A & A EMPHASYS INTERACTIVE SOLUTIONS LTD	
P6	BG	FONDATSIA UCHENE ZA PROMYANA	 <p>LEARNING FOR CHANGE</p>

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## 1. Introduction - Aims and activities

The project is in line with the priority for tackling environmental and climate changes (SDG 2030) as well as promoting the EU Green Deal Scheme. The GreenWave project does not only raise the awareness of environmental challenges, but it also promotes the acquisition of green competences, knowledge and attitudes based on the development of a Green Competence Framework which is an urgent need as referred to in the EU Green Deal. Eco-friendly responsible YP will adopt green habits, practices and practices that will support them in their life with an impact on their families, the community they live in and the economy.

The GreenWave project aims to develop entrepreneurs who are at the same time eco-citizens, committed to healthier communities for a more sustainable world. In order to do so, the consortium will carry out the following result: Green Entrepreneurship competence framework: mapping green enterprises and defining profiles for young green-preneurs by means of different activities:

- **PR1-A1:** The green-oriented index: Transnational e-mapping of green enterprises, initiatives and good practices
- **PR1-A2:** Green-entrepreneurial audit tool for YP and YWs
- **PR1-A3:** National infographics - Visual presentations
- **PR1-A4:** Greenwave competence framework
- **PR1-A5:** Advisory committee synergies with associate partner

## 2. Open Badges

Open Badges are a digital representation of skills, learning outcomes, achievements or experience such as:

- Hard skills: knowledge, competences, etc.
- Soft skills: collaboration, communication, etc.
- Participation and community involvement
- Official certification
- Authorization

Open Badge is an innovative system used in the USA and many EU countries for the validation and recognition of learning using the OB technology offered as an open educational resource. It is a technology which promotes open access and participation of all stakeholders involved in badges process, while allowing the creation of synergies between the learners-earners (i.e., young people, students), the issuers (i.e., VET Schools, stakeholders, enterprises, NGOs including the VET trainers/ Volunteers as facilitators) and the badge consumers (i.e., employers, formal education, public authorities, official body). This will lead to the endorsement process leading to a transparent, transferable, valid and credible validation of a body of skills and knowledge related to a set of competences, such as coding skills for VET students and teachers.

Open Badges is a very inclusive solution: it enables anyone to get actively involved in designing, testing, implementing and promoting the learning outcomes and achievements. This is what major European documents on Recognition are calling for, as well as Erasmus+ in emphasizing the “transparency and recognition of skills and qualifications to facilitate learning, employability and labour mobility: priority will be given to actions promoting permeability across education, training and youth fields as well as the simplification and rationalisation of tools for transparency, validation and recognition of learning outcomes. This includes promoting innovative solutions for the recognition and validation of competences acquired through informal, non-formal, digital and open learning” (Horizontal Priorities).

Open Badge is a visual verified evidence of achievement. It has a visual part (image) and meta-data, which is encoded in the image. Each digital badge must comply with the required standard data fields, such as: issuer, date of issue, description of the badge, link to assessment criteria, link to evidence of what badge owner is claiming, link to specific competence framework and tags, which puts an Open Badge in relation to specific context.

### 3. Benefits of Open Badges

The following are some of the benefits of Open Badges:

- Badges can demonstrate a wider range of skills and achievements of a learner acquired through formal, non-formal and informal learning methods and activities.
- Badges are portable and verifiable digital objects. All this information may be packaged within a badge image file that can be displayed via online CVs and social networks.
- Each Badge includes the description of the achievement: i.e., it describes the particular path a learner undertook for his or her achievement, accompanied by the evidence to support the badge award.
- Each Badge includes information about the earner's identity, a link to information about the issuer and a link to a description of what a badge represents.
- Badges can be used to unlock learning and career pathways. They can be used to support individuals to achieve learning goals, to provide routes into employment; and to nurture and progress talent within organizations.
- Badges can represent personal attributes that matter to employers (such as soft skills).

Badges can be used in a professional context. Thousands of organizations, including non-profit organizations, major employers or educational institutions, issue badges in accordance with the Open Badges Specification.

## 4. Key Elements

### 4.1. Issuer

The issuer defines a competence that could be acquired by a user, designs the learning material for it and assesses the users with regards to the acquisition of the competence. The issuer then creates a relevant badge and makes it available for earning by any user. For each badge, the issuer should make available details of the criteria that an earner must meet in order to be awarded the specific badge. The reviewer of an assessment compares the evidence provided by the earner against the specific badge criteria.

Any individual or organization can create an Issuer profile and begin defining and issuing Open Badges. This is being done by a diverse range of organizations and communities, including:

- Schools and universities
- Employers
- Community and nonprofit organizations
- Government agencies (including NASA)
- Libraries and museums
- Event organizers and science fairs (Including Intel)
- Companies and groups focused on professional development (such as the Environmental Education Programme consortium)

An entity that can be described with a name, a description, a URL, an image, and an e-mail address is a possible candidate to become an issuer. Furthermore, it needs a technology platform that supports the Open Badges Specification in order to issue Open Badges.

### 4.2. Badge Issuing Platforms

Many companies have badge issuing platforms compliant with the Open Badges Specification. They provide a wide range of services which allow non-technical users to issue Open Badges credentials. The platforms used for issuing Open Badges offer a variety of custom services including online badge designers, badge discovery, issuing, assessment workflow, display, user profiles, social sharing and tools to integrate with existing learning systems. All Open Badges issuing platforms allow recipients to export their badges to other online options. This allows users to stack and share their badges earned on different platforms and to choose their own spaces to establish their identity on the web.



### 4.3. Earner

Open Badges help to recognize skills gained through a variety of experiences, regardless of the age or background of the learner. They allow earners to get awards for following their interests and passions, and to unlock opportunities in life and work by standing out from the crowd. Earners have to register on the organization's platform and can claim a badge when the pre-defined criteria have been met during the evaluation phase.

### 4.4. Evaluation

There are different options for the assessment process:

- Asynchronous assessment: learners seek out the assessment when it is convenient for them instead of being required to take an exam at a predetermined time.
- Stealth assessment: assessment and awarding badges can happen automatically and provide immediate feedback.
- Portfolio assessment: work samples, projects and other artifacts the learner has produced can be used as evidence for claiming a badge.

### 4.5. Displayer

Open Badges are designed to be shared. By sharing them, individuals exhibit their achievements to others and turn them into a valuable currency to unlock new opportunities. Displayers can utilize the Displayer API for retrieving earner badges from the Mozilla hosted Backpack. Mozilla set up the first Backpack in 2011. Most issuing platforms provide users with the ability to connect and store their badges to this Backpack. When retrieving badges from the earner's Mozilla Backpack (using the email address account), the advertiser will only be able to access those badges that the earner has chosen to be public.

Badges can also be shared:

- On blogs, websites, e-Portfolios, and professional networks.
- In job applications
- On social media sites - Twitter, Google+, Facebook, LinkedIn
- In an email signature



## 5. Technical Aspects

An earnable badge is defined as a badge class, using a variety of data items including descriptions, criteria and information about the issuing organization. When an issuer decides to award that badge to a specific earner, he or she creates a badge assertion. A badge assertion describes the data for an awarded badge. It includes the earner's identity and a link to the generic badge class, which in turn is linked to information about the badge issuer. All the data for the badge is defined using JSON structures. To award a badge to an earner the issuer creates a badge assertion in JSON.

The image for a badge should be a square PNG (or SVG). The file size should be a maximum of 256 KB and should not be smaller than 90 px square.

Things you can verify and explore in a badge:

- Details about the organization issuing the badge
- What the individual has done to earn the badge
- The criteria that the badge has been assessed against
- That the badge was issued to the expected recipient
- The badge earner's unique evidence (optionally included)
- When the badge was issued and whether it expires



## 6. Institutional Endorsements

Badges are like commercial products that have to be endorsed by a certain celebrity or institution in order to be promoted in a wider sphere and to gain the support of the consumer. In this section, institutions from public and private sectors, which are endorsing open badges as a recognition tool and the importance of endorsing a badge within the ecosystem will be highlighted.

### 6.1. Governmental Institutions

The Council of the European Union is one of the intergovernmental institutions which have expressed their support to the open badges as one of the nonconventional approaches to recognize someone's work. In a conclusion made by the Council and Representatives of the Government of the Member States released in November 23, 2016, it was stated that "To appeal to young people and to ensure greater impact on their lives, new settings where young people spend their time, such as modern city infrastructure and virtual space, as well as new approaches using innovative online and offline tools (such as gamification, GPS based activities, learning badges or design thinking), should be reflected upon and taken into account in the further development of education and training of youth workers." (Council of the European Union, 2016). This statement affirms that learning badges such as open badges are one of today's trends in recognizing learners' skills and knowledge acquired by training.

Within the EU, the Lithuanian National Commission for UNESCO together with the Lithuanian Association of Non-Formal Education recommend the use of open badges to other UNESCO affiliated schools in the country (Lithuanian National Commission for UNESCO, 2016).

Aside from these EU bodies, in 2013 the U.S. Department of Education's Office of Vocational and Adult Education (OVAE), funded a study which "explores the feasibility of developing and implementing a system of digital badges for adult learners and the implications for policy, practice, and the adult education delivery system" (Finkelstein, Knight, & Manning, 2013). In the US, the following institutions have a long tradition implementing the open badges system as a recognition tool:

- EDUCAUSE- a leading association in the field of information technology focusing on higher education.
- The Society for Science and the Public administers the Intel International Science and Engineering Fair (Intel ISEF), - the largest pre college science competition in the world.
- The American Association for State and Local History.
- The Yale Center for Emotional Intelligence.

These institutional endorsements from various governmental bodies show that open badges are a legitimate tool to be considered and one of the trends in the 21st century which should be further explored in the field of formal and non-formal education.

## 6.2. Private Sector's Endorsement

Aside from the Mozilla Foundation which started with the idea of open badges, various entities in the private sector have been using open badges. For instance, the American company Microsoft “developed a badge system for the Partners in Learning Network (PiLN) of educators and school leaders to promote technological competencies and relevant skills in today’s digital age.” (Chow, 2014). On its official website, the company explains why they are offering badges: “Your digital badge allows you to easily share the details of your skills in a way that is trusted and verifiable” (Microsoft, 2016). One of the well-known institutions which is using open badges is the National Aeronautics and Space Administration (NASA). In 2012, NASA together with Project Whitecard and the Wheeling Jesuit University collaborated to convince the California Academy of Science to implement Mozilla’s open badges system in “recognizing life’s achievements” (NASA, 2016). Aside from companies, formal education institutions have been also using open badges as a recognition tool. In Europe, some of these institutions include Beuth University of Applied Sciences in Berlin, Germany, Newcastle University in the United Kingdom and Universitat de les Illes Balears in Spain (Mozilla Foundation, 2016c).

## 7. Open Badges for GreenWave

Open Badges provide portable and verifiable information about digital skills and achievements. Young people can unlock opportunities by sharing collections of badges representing desired skill sets in a dynamic, evidence-based way. Open Badges represent legitimate, authenticated achievements described within the badge and linked to the project.

Main characteristics of the GreenWave Open Badges:

- The GreenWave consortium has designed the competence framework, syllabus and teaching - learning material for the following modules (which are presented in PR1) namely:
  - Legal establishment of a business - types and procedures
  - System thinking & solving problems via business and process approach
  - Critical thinking skills - strategies for development & information management
  - The future of green opportunities - market exploration strategies
  - Sustainability and unsustainability
  - Taking an active business stand for the environment
  - Creation of green business plan, green financial plan
  - Staff recruitment & green jobs
  - Implementation of circular economy
  - Short- and long-term impact on the planet - measuring the footprint
  - Promoting nature
  - Eco mindset in the business
- The GreenWave consortium has created the corresponding badges (see Figure 1). There are 6 badges for module one and other 6 badges for module two (1 per topic) and 1 overall Badge (GreenWave) for the Completion of both modules. In order for the young person to acquire the GreenWave Badge, they first need to complete all topics of the specific modules. These badges are made available for earning via the e-tool, which has been designed specifically for the learning and assessment purposes of the GreenWave project.
- Young people are invited to register on the platform and take the course(s) of the GreenWave project.
- The e-platform specifies to young people the criteria for earning each of the badges shown below. These criteria will be elaborated in the following section.
- Young people have to provide evidence to meet the badge criteria in order to claim a specific badge. This process is automatized on the e-tool.

- The badges will be awarded automatically through the e-platform based on certain criteria, which are presented in the next section.
- The issuer (GreenWave Consortium) will provide the user with the opportunity (through the e-tool) to create an account in the Badge Backpack in order to display the earned badges there as well.

The GreenWave consortium plays a critical role in promoting youth driven digital transformation of green employments for a sustainable future. Open Badges can support youths to achieve new collaborations, jobs, internships and richer connections between lifelong learners.







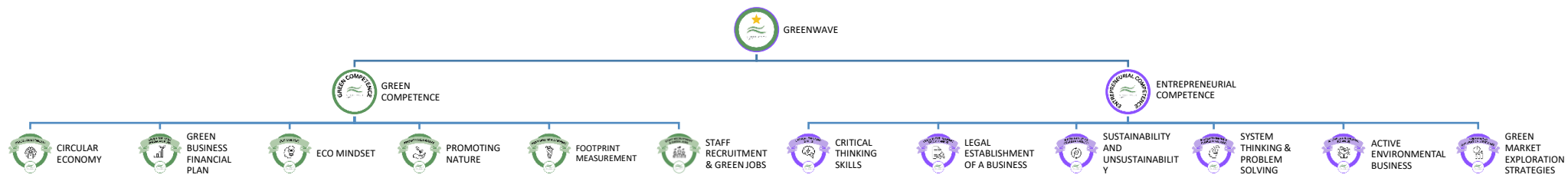


Figure 1: Tree structure of the open badges



The GreenWave consortium has decided to divide the 2 modules into twelve (12) topics according to the GreenWave framework. Young People can therefore achieve a maximum of six (6) Open Badges for each module (e.g.: Promoting nature). An additional Open Badge (the Overall Module Completion) will be awarded to young people once they have completed all topics. Completing all of the offered modules, rewards the young person automatically with the Ultimate GreenWave Badge. Thus, in total 15 Open Badges will be developed and awarded.

Each Open Badge is described by the following aspects:

1. **Name of the Open Badge:** The name of the Open Badge comprises on the one hand, the name of the module and the other hand, the different topics that complete each module.
2. **Design of Open Badge:** The Visualization (image) of the Open Badge for Module (see Figures 2 and 3).
3. **Main Objective:** A description of the Open Badge related to the main objectives of each Level.
4. **Learning Outcomes:** In the document PR1-A4 “GreenWave Competence Reference Framework” the learning outcomes are presented per unit. The theoretical learning outcomes are related to the Component 2 of the Framework and will be examined with exercises.
5. **Assessment Criteria:** The criteria to be used to assess whether the learning outcomes of all units have been achieved and whether the set of skills and competences of all levels have been acquired by young people. The criteria and the assessment methods that have to be followed in order to receive a badge are described in the following sections.
6. **Evidence:** The proof and the evidence of the acquired skills i.e. quiz grades, etc. This process is fully automatized on the e-tool where the assessment tests are automatically graded.
7. **Issued by:** In this section the issuer of the Open Badge is specified, which in this case is the GreenWave Consortium.

## Badges Awarding Criteria

The GreenWave s e-tool offers 15 badges in total. The criteria for earning the badges for the modules differ from the criteria for the awarding of the last GreenWave Badge.

### 8.1. Award Criteria for the Badges

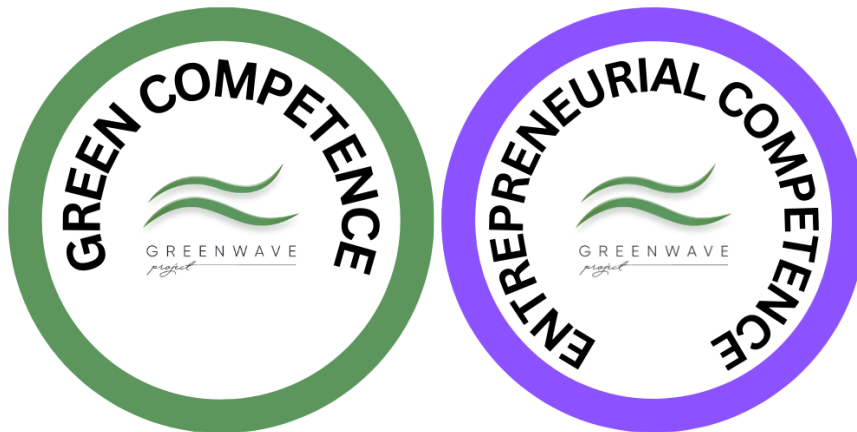
- ✓ To obtain Legal establishment of a business - types and procedures badge, the youth needs to pass all the 3 lessons: beginner, intermediate and expert, with at least 70% overall mark.
- ✓ To obtain System thinking & solving problems via business and process approach badge, the youth needs to pass all 3 lessons: beginner, intermediate and expert, with at least 70% overall mark.



- ✓ To obtain Critical thinking skills - strategies for development & information management badge, the youth needs to pass all 3 lessons: beginner, intermediate and expert, with at least 70% overall mark.
- ✓ To obtain The future of green opportunities - market exploration strategies badge, the youth needs to pass all 3 lessons: beginner, intermediate and expert, with at least 70% overall mark.
- ✓ To obtain Sustainability and unsustainability badge, the youth needs to pass all 3 lessons: beginner, intermediate and expert, with at least 70% overall mark.
- ✓ To obtain Taking an active business stand for the environment badge, the youth needs to pass all 3 lessons: basic, intermediate and expert, with at least 70% overall mark.
- ✓ To obtain Creation of green business plan, green financial plan badge, the youth needs to pass all 3 lessons: basic, intermediate and expert, with at least 70% overall mark.
- ✓ To obtain Staff recruitment & green jobs badge, the youth needs to pass all 3 lessons: basic, intermediate and expert, with at least 70% overall mark.
- ✓ To obtain Implementation of circular economy badge, the youth needs to pass all 3 lessons: basic, intermediate and expert, with at least 70% overall mark.
- ✓ To obtain Short and long term impact on the planet - measuring the footprint badge, the youth needs to pass all 3 lessons: basic, intermediate and expert, with at least 70% overall mark.
- ✓ To obtain Promoting nature badge, the youth needs to pass all 3 lessons: basic, intermediate and expert, with at least 70% overall mark.
- ✓ To obtain Eco mindset in the business badge, the youth needs to pass all 3 lessons: basic, intermediate and expert, with at least 70% overall mark

## 7.2. Award Criteria for Overall Course Completion Badge

Finally, the criterion for the awarding of the final GreenWave Badge will be the successful completion of all topics of the course. Successful completion of a module means earning the corresponding module badge, which can be achieved with an overall mark 70% or over. Therefore, once users receive all module badges, the e-platform will automatically award them the final Overall Course Completion Badge (GreenWave Badge) (Figures 2 & 3).




**Figure 2:** Criteria to obtain the GreenWave Badge



**Figure 3:** Overall GreenWave Badge

## 8. Badges Awarding Criteria


The following section presents the details of the open badges developed based on the modules (PR1).

Name of the OB	Design of the OB	Learning outcomes	Assessment Criteria	Evidence	Issued by
Legal establishment of a business - types and procedures		<ul style="list-style-type: none"> <li>• Provide the learner with the competencies needed to register a company and to know what type of company is needed (limited liability).</li> <li>• The learner will go through all the requirements in order to be aware of the legal procedures that need to be taken for the establishment of a company.</li> <li>• Therefore, the types of companies with their special characteristics will also be explained.</li> </ul> <p>In order to do so different competences will be carried out:</p> <ul style="list-style-type: none"> <li>• Beginner <ul style="list-style-type: none"> <li>○ To be aware of different types of businesses and develop their entrepreneurial and eco mindset.</li> </ul> </li> </ul>	<p>70% of Marks should be achieved for the student to earn the “Legal establishment of a business - types and procedures” Badge.</p> <p>This is split up as follows: each topic has 3 different competence lessons and each lesson has 5 questions of which at least 3 have to be correct.</p> <p>*For more details, please refer to the Badges Award Criteria Section above.</p>	<p>The proof and the evidence of the acquired skills are the grade marks.</p> <p>This process is fully automatized on the e-tool where the assessment tests are automatically graded</p>	GreenWave Consortium



		<ul style="list-style-type: none"> <li>● Intermediate             <ul style="list-style-type: none"> <li>○ To relate to the most suitable business type and get inspired by good practices of businesses and legal procedures of a country.</li> </ul> </li> <li>● Expert             <ul style="list-style-type: none"> <li>○ To learn the benefits of being in line with environmental policies.</li> </ul> </li> </ul>			
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Name of the OB	Design of the OB	Learning outcomes	Assessment Criteria	Evidence	Issued by
<p>System thinking &amp; solving problems via business and process approach</p>		<ul style="list-style-type: none"> <li>● Determine the importance of process approach to problem solving and the benefits of system thinking.</li> </ul> <p>In order to do so different competences will be carried out:</p> <ul style="list-style-type: none"> <li>● Beginner               <ul style="list-style-type: none"> <li>○ To understand system thinking.</li> <li>○ To understand the process approach.</li> </ul> </li> <li>● Intermediate               <ul style="list-style-type: none"> <li>○ To be able to link system thinking and process approach with sustainability.</li> <li>○ To be able to divide a process into smaller processes using system thinking.</li> <li>○ To be able to tell the difference between system thinking and process approach.</li> </ul> </li> <li>● Expert</li> </ul>	<p>70% of Marks should be achieved for the student to earn the “System thinking &amp; solving problems via business and process approach” Badge.</p> <p>This is split up as follows: each topic has 3 different competence lessons and each lesson has 5 questions of which at least 3 have to be correct.</p> <p>*For more details, please refer to the Badges Award Criteria Section above.</p>	<p>The proof and the evidence of the acquired skills are the grade marks.</p> <p>This process is fully automatized on the e-tool where the assessment tests are automatically graded</p>	<p>GreenWave Consortium</p>


		<ul style="list-style-type: none"> <li>○ To be able to think and implement sustainable solutions via the use of techniques such as system thinking and process approach.</li> </ul>			
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Name of the OB	Design of the OB	Learning outcomes	Assessment Criteria	Evidence	Issued by
<p>Critical thinking skills - strategies for development &amp; information management</p>		<ul style="list-style-type: none"> <li>• The development of critical thinking is an educational necessity to prepare individuals who then will have the ability to criticize ideas, propose solutions to problems and carefully analyse issues to reach a correct conclusion.</li> <li>• It leads to a deeper understanding of the cognitive content and leads the person to independence in his/her thinking while it encourages a spirit of inquiry, research and non-acceptance of facts without sufficient investigation.</li> <li>• It provides the person with the thinking tools he/she needs to deal with the challenges of the information age. The latest is crucial because as research shows misinformation even leads to the delay of climate legislation and then to the delay of the necessary economic and environmental solutions to make environmental progress.</li> </ul>	<p>70% of Marks should be achieved for the student to earn the “Critical thinking skills - strategies for development &amp; information management” Badge.</p> <p>This is split up as follows: each topic has 3 different competence lessons and each lesson has 5 questions of which at least 3 have to be correct.</p> <p>*For more details, please refer to the Badges Award Criteria Section above.</p>	<p>The proof and the evidence of the acquired skills are the grade marks.</p> <p>This process is fully automatized on the e-tool where the assessment tests are automatically graded</p>	<p>GreenWave Consortium</p>

		<p>In order to do so different competences will be carried out:</p> <ul style="list-style-type: none"> <li>● Beginner <ul style="list-style-type: none"> <li>○ To become competent in incorporating critical thinking in everyday life both personal and professional.</li> </ul> </li> <li>● Intermediate <ul style="list-style-type: none"> <li>○ To be competent to participate in decision making and actions that help the cause of the green economy.</li> </ul> </li> <li>● Expert <ul style="list-style-type: none"> <li>○ To remain competent at the higher level in order to inspire, motivate and mentor others on involving in and applying correctly green initiatives and to contribute in solving complex problems.</li> </ul> </li> </ul>			
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Name of the OB	Design of the OB	Learning outcomes	Assessment Criteria	Evidence	Issued by
<p>The future of green opportunities - market exploration strategies</p>		<ul style="list-style-type: none"> <li>● Understand in general how to explore the market for business opportunities and then to focus on business categories that are related to sustainable and green economy.</li> <li>● After examining the areas, he may then select the more specific topics-solutions that look more promising for the future and fit better to his beliefs/personality and his educational and working background.</li> </ul> <p>In order to do so different competences will be carried out:</p> <ul style="list-style-type: none"> <li>● Beginner <ul style="list-style-type: none"> <li>○ To know how to search systematically (not only by intuition) for future opportunities in the green sector.</li> </ul> </li> <li>● Intermediate <ul style="list-style-type: none"> <li>○ To know areas of the green economy where innovation is required and be able to participate in such</li> </ul> </li> </ul>	<p>70% of Marks should be achieved for the student to earn the “The future of green opportunities - market exploration strategies” Badge.</p> <p>This is split up as follows: each topic has 3 different competence lessons and each lesson has 5 questions of which at least 3 have to be correct.</p> <p>*For more details, please refer to the Badges Award Criteria Section above.</p>	<p>The proof and the evidence of the acquired skills are the grade marks.</p> <p>This process is fully automatized on the e-tool where the assessment tests are automatically graded</p>	<p>GreenWave Consortium</p>

		<p>opportunities.</p> <ul style="list-style-type: none"> <li>● Expert             <ul style="list-style-type: none"> <li>○ To improve the knowledge needed to create future opportunities in the green sector.</li> </ul> </li> </ul>			
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Name of the OB	Design of the OB	Learning outcomes	Assessment Criteria	Evidence	Issued by
Sustainability and unsustainability		<ul style="list-style-type: none"> <li>● Make clear to learners what sustainability is, what consists of, what are its goals, and how it can be implemented from macro to micro level.</li> <li>● To comprehend better what sustainability is, it is helpful to also describe what sustainability is not. This way, unsustainability will also be identified.</li> <li>● Description of the practices that are adapted in nowadays societies, businesses, policies and attitudes that are not in line with environmental protection and sustainable development.</li> </ul> <p>In order to do so different competences will be carried out:</p> <ul style="list-style-type: none"> <li>● Beginner <ul style="list-style-type: none"> <li>○ To understand terms as: sustainability, unsustainability,</li> </ul> </li> </ul>	<p>70% of Marks should be achieved for the student to earn the “Sustainability and unsustainability” Badge.</p> <p>This is split up as follows: each topic has 3 different competence lessons and each lesson has 5 questions of which at least 3 have to be correct.</p> <p>*For more details, please refer to the Badges Award Criteria Section above.</p>	<p>The proof and the evidence of the acquired skills are the grade marks.</p> <p>This process is fully automatized on the e-tool where the assessment tests are automatically graded</p>	GreenWave Consortium


		<p>sustainable development, environmental protection, SDGs etc.</p> <ul style="list-style-type: none"> <li>○ To understand the difference between sustainability and unsustainability.</li> <li>● Intermediate <ul style="list-style-type: none"> <li>○ To define and explain practices or policies as sustainable or unsustainable.</li> <li>○ To know the measurements of sustainability.</li> <li>○ To know how to measure sustainability.</li> </ul> </li> <li>● Expert <ul style="list-style-type: none"> <li>○ Learners will be able, after defining something as unsustainable, to provide solutions.</li> <li>○ They will also be able to teach others about sustainability and unsustainability.</li> </ul> </li> </ul>			
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Name of the OB	Design of the OB	Learning outcomes	Assessment Criteria	Evidence	Issued by
<p>Taking an active business stand for the environment</p>		<ul style="list-style-type: none"> <li>● This competence will focus more on how companies can take active action as there is a wide recognition that addressing environmental challenges requires the business sector to step in.</li> </ul> <p>In order to do so different competences will be carried out:</p> <ul style="list-style-type: none"> <li>● Beginner <ul style="list-style-type: none"> <li>○ To understand environmental issues and the valuable contribution of business in fighting the environmental crisis.</li> </ul> </li> <li>● Intermediate <ul style="list-style-type: none"> <li>○ To be able to incorporate the Paris Agreement and EU Green deal in a business and to be inspired by good practices in the business sector and the environment.</li> </ul> </li> </ul>	<p>70% of Marks should be achieved for the student to earn the “Taking an active business stand for the environment” Badge.</p> <p>This is split up as follows: each topic has 3 different competence lessons and each lesson has 5 questions of which at least 3 have to be correct.</p> <p>*For more details, please refer to the Badges Award Criteria Section above.</p>	<p>The proof and the evidence of the acquired skills are the grade marks.</p> <p>This process is fully automatized on the e-tool where the assessment tests are automatically graded</p>	<p>GreenWave Consortium</p>


		<ul style="list-style-type: none"> <li>● Expert             <ul style="list-style-type: none"> <li>○ To be aware of the industrial role and contribution to greenhouse gas emissions and to give examples on how a business can create a plan and stand out for the environment.</li> </ul> </li> </ul>			
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Name of the OB	Design of the OB	Learning outcomes	Assessment Criteria	Evidence	Issued by
<p>Creation of green business plan, green financial plan</p>		<ul style="list-style-type: none"> <li>● Making a business plan is one of the most crucial aspects of establishing a company and when we need it to be green, we would have to put in even more effort. Precisely because of this, this competence is one of the most important and innovative ones.</li> </ul> <p>In order to do so different competences will be carried out:</p> <ul style="list-style-type: none"> <li>● Beginner <ul style="list-style-type: none"> <li>○ To understand why they need a business plan.</li> <li>○ To understand exactly what a business plan is.</li> <li>○ To understand the difference between a normal business plan and a green one.</li> </ul> </li> <li>● Intermediate <ul style="list-style-type: none"> <li>○ Knowing the steps of developing a</li> </ul> </li> </ul>	<p>70% of Marks should be achieved for the student to earn the “Creation of green business plan, green financial plan” Badge.</p> <p>This is split up as follows: each topic has 3 different competence lessons and each lesson has 5 questions of which at least 3 have to be correct.</p> <p>*For more details, please refer to the Badges Award Criteria Section above.</p>	<p>The proof and the evidence of the acquired skills are the grade marks.</p> <p>This process is fully automatized on the e-tool where the assessment tests are automatically graded</p>	<p>GreenWave Consortium</p>

		<p>business plan.</p> <ul style="list-style-type: none"><li>● Expert<ul style="list-style-type: none"><li>○ Good green businesses.</li><li>○ How to change a normal business plan to a green business plan.</li></ul></li></ul>			
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Name of the OB	Design of the OB	Learning outcomes	Assessment Criteria	Evidence	Issued by
Staff recruitment & green jobs		<ul style="list-style-type: none"> <li>Knowing the skills and competences needed in our staff and linking them with green skills is one of the keys of having a sustainable and successful business.</li> <li>Additionally, it is also important to understand the stages of a recruitment and selection process, and the available tools that can support this type of process.</li> </ul> <p>In order to do so different competences will be carried out:</p> <ul style="list-style-type: none"> <li>Beginner <ul style="list-style-type: none"> <li>Learners will know what a green and sustainable economy is, and how green skills can contribute to the emergence of green jobs.</li> <li>Learners will also be introduced to the concepts of staff recruitment.</li> </ul> </li> </ul>	<p>70% of Marks should be achieved for the student to earn the “Staff recruitment &amp; green jobs” Badge.</p> <p>This is split up as follows: each topic has 3 different competence lessons and each lesson has 5 questions of which at least 3 have to be correct.</p> <p>*For more details, please refer to the Badges Award Criteria Section above.</p>	<p>The proof and the evidence of the acquired skills are the grade marks.</p> <p>This process is fully automatized on the e-tool where the assessment tests are automatically graded</p>	GreenWave Consortium

		<ul style="list-style-type: none"> <li>● Intermediate             <ul style="list-style-type: none"> <li>○ Learners will know and apply the appropriate tools for conducting a recruitment and selection process directed at recruiting people with green skills for green jobs.</li> </ul> </li> <li>● Expert             <ul style="list-style-type: none"> <li>○ Know and apply the appropriate tools to conduct a recruitment and selection process in a Green business, taking into account the adoption of ecologically and socially responsible practices.</li> </ul> </li> </ul>			
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Name of the OB	Design of the OB	Learning outcomes	Assessment Criteria	Evidence	Issued by
Implementation of circular economy		<ul style="list-style-type: none"> <li>Switching to a circular economy necessitates an urgent need for new skills, competencies, and methodologies.</li> <li>Explanation about the new circular economy action plan that was adopted by The European Commission in March 2020. Education and training play an important role in delivering and upgrading necessary skills.</li> </ul> <p>In order to do so different competences will be carried out:</p> <ul style="list-style-type: none"> <li>Beginner <ul style="list-style-type: none"> <li>To understand how the circular economy started.</li> <li>To understand exactly what CE is.</li> <li>To understand the difference</li> </ul> </li> </ul>	<p>70% of Marks should be achieved for the student to earn the “Implementation of circular economy” Badge.</p> <p>This is split up as follows: each topic has 3 different competence lessons and each lesson has 5 questions of which at least 3 have to be correct.</p> <p>*For more details, please refer to the Badges Award Criteria Section above.</p>	<p>The proof and the evidence of the acquired skills are the grade marks.</p> <p>This process is fully automatized on the e-tool where the assessment tests are automatically graded</p>	GreenWave Consortium


		<p>between circular and linear economy.</p> <ul style="list-style-type: none"> <li>○ To understand what sustainability is.</li> </ul> <ul style="list-style-type: none"> <li>● Intermediate             <ul style="list-style-type: none"> <li>○ To approach and describe the 7 pillars of CE.</li> <li>○ To explain the CEAP.</li> </ul> </li> <li>● Expert             <ul style="list-style-type: none"> <li>○ Good businesses that are using a circular economy.</li> <li>○ How to change from LE to CE.</li> </ul> </li> </ul>			
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Name of the OB	Design of the OB	Learning outcomes	Assessment Criteria	Evidence	Issued by
<p>Short and long term impact on the planet - measuring the footprint</p>		<ul style="list-style-type: none"> <li>• This competence is a core one for the general consciousness for human/nature interdependence and reciprocity.</li> <li>• The competence contains knowledge, skills and attitudes that contribute to the understanding of the impact of human activities on the environment in which we live, as well as on the world as a whole, in the short and long term.</li> </ul> <p>In order to do so different competences will be carried out:</p> <ul style="list-style-type: none"> <li>• Beginner <ul style="list-style-type: none"> <li>○ To be able to identify and implement individual practices for reducing one's environmental impact.</li> </ul> </li> </ul>	<p>70% of Marks should be achieved for the student to earn the “Short and long term impact on the planet - measuring the footprint” Badge.</p> <p>This is split up as follows: each topic has 3 different competence lessons and each lesson has 5 questions of which at least 3 have to be correct.</p> <p>*For more details, please refer to the Badges Award</p>	<p>The proof and the evidence of the acquired skills are the grade marks.</p> <p>This process is fully automatized on the e-tool where the assessment tests are automatically graded</p>	<p>GreenWave Consortium</p>

		<ul style="list-style-type: none"> <li>● Intermediate             <ul style="list-style-type: none"> <li>○ To be able to evaluate, understand and minimize the environmental impact of a bigger social structure (e.g. company/business, community, industry, enterprise etc.).</li> </ul> </li> <li>● Expert             <ul style="list-style-type: none"> <li>○ To be able to assess and predict future impacts of current actions on nature.</li> <li>○ To be able to create new / innovative practices and methods to reduce the environmental footprint.</li> </ul> </li> </ul>	Criteria Section above.		
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Name of the OB	Design of the OB	Learning outcomes	Assessment Criteria	Evidence	Issued by
Promoting nature		<ul style="list-style-type: none"> <li>● This competence is giving people the ability to reconnect with their natural roots and to understand our place in the planetary ecosystem (the big network of life).</li> <li>● It provides deep nature connection and ability to understand and promote human-nature reciprocity.</li> <li>● This is a competence at the core of peoples regaining their natural place in a more-than-human world.</li> </ul> <p>In order to do so different competences will be carried out:</p> <ul style="list-style-type: none"> <li>● Beginner <ul style="list-style-type: none"> <li>○ To be competent to discover ways they can reconnect with nature and to share this motivation with others.</li> </ul> </li> </ul>	<p>70% of Marks should be achieved for the student to earn the “Promoting nature” Badge.</p> <p>This is split up as follows: each topic has 3 different competence lessons and each lesson has 5 questions of which at least 3 have to be correct.</p> <p>*For more details, please refer to the Badges Award Criteria Section above.</p>	<p>The proof and the evidence of the acquired skills are the grade marks.</p> <p>This process is fully automatized on the e-tool where the assessment tests are automatically graded</p>	GreenWave Consortium

		<ul style="list-style-type: none"> <li>● Intermediate             <ul style="list-style-type: none"> <li>○ To be competent to lead community and social activities by educating people and conducting actions that lead to people’s reconnection with nature.</li> </ul> </li> <li>● Expert             <ul style="list-style-type: none"> <li>○ To be competent to act at the higher level and bring broader change by igniting policy transformation, advocacy campaigns etc.</li> </ul> </li> </ul>			
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Name of the OB	Design of the OB	Learning outcomes	Assessment Criteria	Evidence	Issued by
Eco mindset in the business		<ul style="list-style-type: none"> <li>● This competence will allow learners to be able to develop services and products under a green framework.</li> <li>● The Eco Mindset can be supported by the use of different strategies / methodologies, such as Eco Design Thinking, Lean Eco Design and Industry 4.0. These methodologies will allow us to develop services and products which maximize their value and at the same time minimize the necessary resources to produce it or deliver it.</li> </ul> <p>In order to do so different competences will be carried out:</p> <ul style="list-style-type: none"> <li>● Beginner <ul style="list-style-type: none"> <li>○ Learners will be able to name and define key concepts for a Business Eco-mindset.</li> </ul> </li> <li>● Intermediate</li> </ul>	<p>70% of Marks should be achieved for the student to earn the “Eco mindset in the business” Badge.</p> <p>This is split up as follows: each topic has 3 different competence lessons and each lesson has 5 questions of which at least 3 have to be correct.</p> <p>*For more details, please refer to the Badges Award Criteria Section above.</p>	<p>The proof and the evidence of the acquired skills are the grade marks.</p> <p>This process is fully automatized on the e-tool where the assessment tests are automatically graded</p>	GreenWave Consortium

		<ul style="list-style-type: none"> <li>○ Learners will be able to name and define key methodologies and strategies for a Business Eco-mindset.</li> <li>● Expert             <ul style="list-style-type: none"> <li>○ Learners will be able to identify and apply main policies which promote business eco-mindset.</li> </ul> </li> </ul>			
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