

Eco-Digithon Methodology

WP n.2 – MS 2

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List of abbreviations

CRS	Corporate Social Responsibility
CSOs	Civil Society Organizations
EGD	European Green Deal
ENNE+	Enhancing VET National Networks through Eco-innovation
EU	European Union
LAs	Local Authorities
NEET	Not in Education, Employment, or Training
NGOs	Non-governmental Organizations
SDGs	Sustainable Development Goals
SHU	Social Hackathon Umbria
UNESCO	United Nations Educational, Scientific and Cultural Organization
VET	Vocational and Education Training

Preamble

This document aims to provide methodological and practical guidelines for conducting an Eco-Digithon.

It was written primarily considering the Social Hackademy Methodology, which has been designed and piloted within the framework of the hackAD – Social Hackademy project n. 612128-EPP-1-2019-1-BE-EPPKA3-IPI-SOC-IN, co-funded by the Erasmus+ Programme of the EU (Key Action 3: Support for policy reform; Action Type: Social inclusion through education, training and youth). This was adapted to be applicable to VET (Vocational and Education Training) centers, thanks to feedback obtained through the organization of 4 focus groups held respectively in Austria, Italy, Spain, and Portugal; the dissemination of a European-scale questionnaire; and lastly, by members of the ENNE+ project's Excellence Assurance Board.

This initial version will be used and tested during the lifecycle of the ENNEPlus project. A final version, inclusive of appropriate modifications, will be published and disseminated through the project's communication channels to allow other interested entities, such as VET centers, local authorities, companies, to benefit from it.

Introduction to the Eco-Digithon

ENNEPlus Project

ENNEPlus - Enhancing VET National Networks through Eco-Innovation - is a project co-funded by the European Union (EU) with the main aim to enhance the capacity of VET providers in contributing to the transformative and sustainable change of the society.

This will be achieved through **networking**, **capacity building**, and **challenge-based activities** involving VET-led multi-stakeholder communities in the co-design, incubation, and implementation of green technology solutions.

Over the three-year lifespan of the project, a total of **80 VET teams or centers** from the countries where the project is implemented, namely Italy, Spain, Portugal, and Austria, will compete to find innovative, digital, and/or technological solutions to real societal problems. Assisted by a pool of **experts from the public and private sectors**, they will first choose a macro-issue connected to the Sustainable Development Goals (SDGs) and then contextualize it with the help of local actors and/or communities.

The teams will collaborate with local actors (who may include government entities, non-governmental organizations, local businesses, educational institutions, etc.) and the **40 directly involved communities** to better understand how the chosen issue manifests at the local level. This will enable them to develop solutions that are relevant and applicable to the specific context of the communities in which they are working.

The **12 best solutions identified** during the project's lifecycle will receive additional support to bring them to a more advanced stage. From the initial stage of ideation or prototyping, these solutions will be enhanced and refined through a dedicated program, with the goal of making them more mature and ready for potential implementation.

Lastly, the project aims to have a long-term impact that extends beyond its lifecycle, ensuring the adoption of the tested and described methodology by at least 50 VET centers and the **development of 4 long-term action plans**, especially involving local authorities, to leverage the achieved results and gather best practices.

Social Hackathon Umbria

The Eco-Digithon Methodology stems from the good practices of other EU initiatives, such as:

- Generation0101 (<https://generation0101.eu/en>)
- hackAD – Social Hackademy (<https://socialhackademy.eu/>)

Both projects included the organization of digital marathons based on the principles of *social hacking*, such as the **Social Hackathon Umbria** (SHU). Initially implemented as the final multiplier event of Generation0101 in Italy, the experience has been annually replicated at local level, with the organization of 7 subsequent editions and a constant growth in the number and variety of participants. Moreover, in 2020, SHU was modelled and transferred to other EU countries through the hackAD – Social Hackademy project, which developed the [Social Hackademy Methodology](#) and training programs for organizing Social Hackathons in Greece, Croatia, and France.

Since 2016, SHU has shown its ability to **positively and sustainably impact all participants involved in the co-creation process of digital solutions for social challenges**. Its training methodology involves two main target groups:

- **Young participants** who follow a structured training program focused on one or more digital skills, aiming to enhance their professional profile and apply what they have learned by contributing to the development of digital solutions

- addressing specific social challenges (participating as *junior hackers* during the final hackathon).
- **Representatives from public or private entities active in the social sector**, who have a personal or institutional interest in identifying and developing a digital solution to a social issue (acting as *solution givers* and actively participating in the event).

The main objective of the SHU is to ensure the social inclusion of young people in vulnerable situations such as NEET (Not in Education, Employment, or Training), by improving their access to ICT and enabling them to acquire the necessary digital and transversal skills to participate fully in modern society.

The main characteristics of the Eco-Digithon

Definition



The **Eco-Digithon** is an **educational marathon** primarily targeting Vocational Education and Training (VET) centers, focused on **creating and prototyping innovative digital and technological solutions to real societal and local problems**.

It involves a competition within and among VET centers and/or VET teams on environmental and sustainability challenges. Indeed, the solutions

developed are aligned with the Sustainable Development Goals (SDGs), ensuring a global perspective on local challenges.

It also promotes **grassroots innovation through a participatory and multidisciplinary approach** as it engages not only VET centers but also stakeholders, policy-makers, companies, members of the academia and experts coming together for social hacking.

Target groups and their roles

The Eco-Digithon primarily targets **VET students**, focusing on those **with digital, technological, and environmental competences**, though these are not mandatory prerequisites for participation.

Secondary targets include **VET teachers, stakeholders, policymakers, organizations, and individuals with an interest and expertise** in the specific sustainability challenges addressed by the Eco-Digithon. Additionally, **educators and professionals in technology, sustainability, and innovation** are encouraged to participate, providing mentorship and guidance to student participants.

As detailed in the Infographic (See Annex 1 – Infographic), each participant plays a crucial role in the success of the Eco-Digithon. All involved actors interact and collaborate to exchange information, knowledge, and co-create eco-innovative, digital, and technological solutions. The educational methodology underlying the Eco-Digithon is learner-centered, focusing on engaging students in activities that tackle real-world problems and emphasizing experiential learning. This approach prioritizes problem-solving over sequential and abstract theoretical study (Norman & Spohrer, 1996)¹.

In this educational process, **teachers and other stakeholders act more as facilitators than traditional instructors**. Teachers, in particular, play a predominant role as **Key Enablers**. They create conditions not only for learning but also for collaboration among various actors and for the co-creation and prototyping of potential solutions. Teachers must facilitate the acquisition of both technical and transversal skills and foster a participatory environment where students, public and private sector representatives, companies, NGOs, and other stakeholders can work together effectively.

¹ Donald A. Norman and James C. Spohrer. 1996. *Learner Centered Education*. Communications of the ACM, Volume 39, Issue 4. DOI:10.1145/227210.227215

*Given the complexity of their role, it is recommended to involve a pool of teachers, with a **minimum ratio of at least 2 teachers for every 20 students**. This ensures adequate individual support and promotes diversity in skills and perspectives within the teaching team. Identifying **teachers whose expertise aligns with the chosen problem** is also advisable to enhance the relevance and effectiveness of the developed solutions. Furthermore, teachers should be **prepared to facilitate communication between students and other stakeholders**, ensuring that each phase of the co-creation process is well-coordinated and aligned with common goals.*

Another essential role is that of the **Societal Case Provider** who is responsible for identifying and presenting specific social issues that will guide the development of solutions during the Eco-Digithon. Societal Case Provider may include civil society organizations (CSOs), non-governmental organizations (NGOs), local authorities (LAs), companies, or other entities. Its role is crucial as the final solution must address not only a general problem related to the SDGs but also a **concrete, localized challenge reflecting the needs of a specific community or group**. Therefore, it actively collaborates with participants throughout the process, providing context, resources, and feedback to ensure that the solutions are relevant, applicable, and sustainable.

Last key figure in the Eco-Digithon is the **Thematic and Sector Experts**². These experts come from various entities, including companies, universities, local authorities, and other organizations. They are highly specialized and/or have extensive experience in digital, technological, and innovative fields, as well as in specific themes and sectors described in the pre-identified learning scenarios linked to the SDGs.

Their technical expertise is vital as they serve as tutors and mentors, supporting students in the co-creation and prototyping processes. They must be capable of collaborating effectively with students, adapting their language and approach to facilitate

² *Sector* refers to a broad area of activity, such as water resources, while *thematic* denotes a specific topic within that sector, such as wastewater management.

understanding and interaction. Their flexibility and ability to communicate clearly and accessibly are essential for creating a learner-centered and productive learning environment.

Multi-disciplinary and participatory approach

The Eco-Digithon adopts a multidisciplinary approach, gathering **participants from diverse academic backgrounds** such as technology, engineering, environmental science, business, architecture or design and others.

It not only brings together participants from various academic fields but also **actively engages a wide range of stakeholders**—including public and private sectors, companies, NGOs, and others—in the co-creation process, ensuring that all voices contribute meaningfully to the development of solutions.

Through collaborative problem-solving in interdisciplinary teams, participants combine their skills and knowledge to develop eco-innovative, digital and technological solutions for sustainability challenges. Projects address cross-cutting themes, engaging with complex issues that intersect various disciplines and sectors.

Expert mentors offer guidance on technical aspects, sustainability principles, and project management, ensuring a comprehensive and inclusive environment that promotes innovation through the exploration of diverse ideas and perspectives.

By engaging a diverse range of stakeholders, the **Eco-Digithon fosters collaboration and knowledge-sharing, ensuring a holistic approach to address environmental and sustainability challenges.**

Win-win strategy

The Eco-Digithon marathon represents a **win-win strategy**, bringing significant benefits to each type of stakeholder involved.

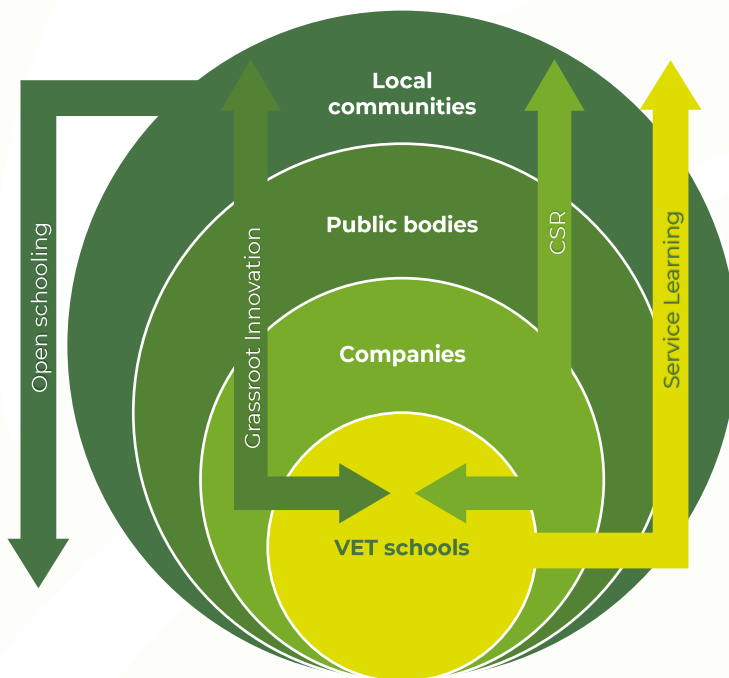
For VET centers, participating in the Eco-Digithon provides an invaluable opportunity to develop eco-innovative digital and technological solutions addressing local and global sustainability challenges. It also enhances participants' **knowledge, competences, and skills** in a collaborative and co-creative environment. **Certificates** will recognize achievements, incorporating competencies from European frameworks such as [DigComp](#), [GreenComp](#), [LifeComp](#), and [EntreComp](#), where applicable, thereby motivating further contributions to sustainable development.

For local communities, the Eco-Digithon strengthens **engagement** and fosters **partnerships** among VET centers, local stakeholders, and policymakers. This collaboration promotes practical solutions to local issues by prototyping **tangible solutions to their specific problems**, thereby enhancing the overall quality of life and sustainability within the community.

For public authorities and policy stakeholders, supporting the implementation of Eco-Digithons represents a valuable opportunity to **promote service learning as an effective method to test innovative solutions and approaches** with the potential to **generate new policies and/or action plans** for the achievement of medium- and long-term objectives.

For companies, the marathon offers increased **visibility** on a European scale, not just nationally. By participating, companies can showcase their commitment to sustainability across multiple countries, including Italy, Spain, Portugal, and Austria, where the project is implemented. This broader exposure enhances **Corporate Social**

Responsibility (CSR) and opens opportunities for cross-border collaborations, potentially attracting more customers and partners who value responsible business practices.



The Eco-Digithon also offers extensive **networking opportunities** on a European level for all participants. This fosters the creation of a valuable network of contacts across different countries, facilitating future collaborative projects and promoting a culture of innovation and sustainability across various sectors.

The Eco-Digithon drives progress toward achieving the SDGs and aligns with the objectives of the European Green Deal. The solutions developed during the marathon contribute to the broader EU goal of transforming how we operate as producers, consumers, and citizens. By promoting a more sustainable yet competitive economy, the Eco-Digithon supports the shift toward a new paradigm that balances environmental responsibility with economic growth.

Winning teams, which include not only students but also experts, will receive **awards** and have the opportunity to participate at SHU. This international event, which inspired the Eco-Digithon, has a significant impact as it involves a growing number of sustainability-related projects and organizations aiming to co-create innovative solutions for a more sustainable future.

Relevance of the Eco-Digithon

Alignment with EU policies and strategies

Besides combining three out of the four priorities of the Erasmus+ programme³, the Eco-Digithon is **closely aligned with key European Union strategies and policies**, proving to be a relevant initiative for achieving the goals of the European Green Deal (EGD), the Digital Agenda for Europe, and the European Innovation Agenda.

The [European Green Deal](#), aiming to make Europe the first climate-neutral continent by 2050, underscores the importance of eco-sustainable innovations. Within this context, the Eco-Digithon plays a crucial role by **fostering the co-creation of digital and technological solutions that also promote sustainable practices** across various sectors, ultimately contributing to the reduction of environmental impact.

Similarly, the [Digital Agenda for Europe 2020-2030](#) seeks to maximize the potential of digital technologies to drive innovation, economic growth, and social inclusion. By developing specific skills among participants and facilitating access to digital technologies for societal case providers, the Eco-Digithon supports this agenda, **promoting broader participation in the digital society**.

The [European Innovation Agenda](#), on the other hand, focuses on creating an innovation ecosystem that positions Europe as a global leader. Through its collaborative and participatory approach, the Eco-Digithon fosters an environment conducive to innovation, where **students, educators, experts, and stakeholders come together to**

³ Organizing an Eco-Digithon promotes the development of digital skills (Priority 2 – Digital Transformation) of all those involved while tackling environmental and sustainability challenges (Priority 3 – Environment and fight against climate change) and enhancing the engagement of VET institutions and, in particular, VET learners in their local communities (Priority 4 – Participation in democratic life, common values and civic engagement)

develop cutting-edge solutions to complex and sustainability challenges, thus supporting Europe's twin green and digital transition.

Reflecting the spirit of the EU's principle of subsidiarity, which emphasizes decision-making as close to citizens as possible, the Eco-Digithon promotes the active involvement of students, local communities, and stakeholders in the co-creation of innovative solutions. This not only encourages citizen participation but also recognizes the role of local authorities and other regional actors, enabling a more targeted and effective approach to sustainability challenges that responds to the specific needs of the communities involved.

Moreover, the European Union's commitment to achieving the SDGs⁴ is a priority that guides many of its policies and initiatives. By integrating global challenges with specific solutions, the Eco-Digithon not only addresses local issues but also contributes to international goals, demonstrating a concrete commitment to a more sustainable, equitable, and prosperous future for all.

Finally, as highlighted in the CEDEFOP report "Skills in Transition,"⁵ the **Eco-Digithon aligns with recommendations to invest in STEM and digital skills, support vocational education and training (VET) as an agent of change**, and overcome siloed thinking. The initiative promotes the inclusion of local actors and SMEs, anticipates skill needs, and encourages transparent collaboration among various stakeholders, thereby contributing to a fair and inclusive green and digital transition.

⁴ To get further information, please click [here](#).

⁵ Cedefop (2023). Skills in transition: the way to 2035. Luxembourg: Publications Office.
<http://data.europa.eu/doi/10.2801/438491>

Alignment with UNESCO initiative

On World Environment Day, UNESCO launched the "[Greening Curriculum](#)" initiative, designed to empower young people to actively engage in combating the climate crisis⁶. This initiative emphasizes the need to integrate sustainability into education systems, equipping students with the knowledge and skills necessary to tackle environmental challenges and contribute to a sustainable future.

The **Eco-Digithon contributes to the implementation of the "Greening Curriculum"** through a practical and collaborative approach that integrates themes of sustainability and innovation, promoting the active participation of all involved stakeholders.

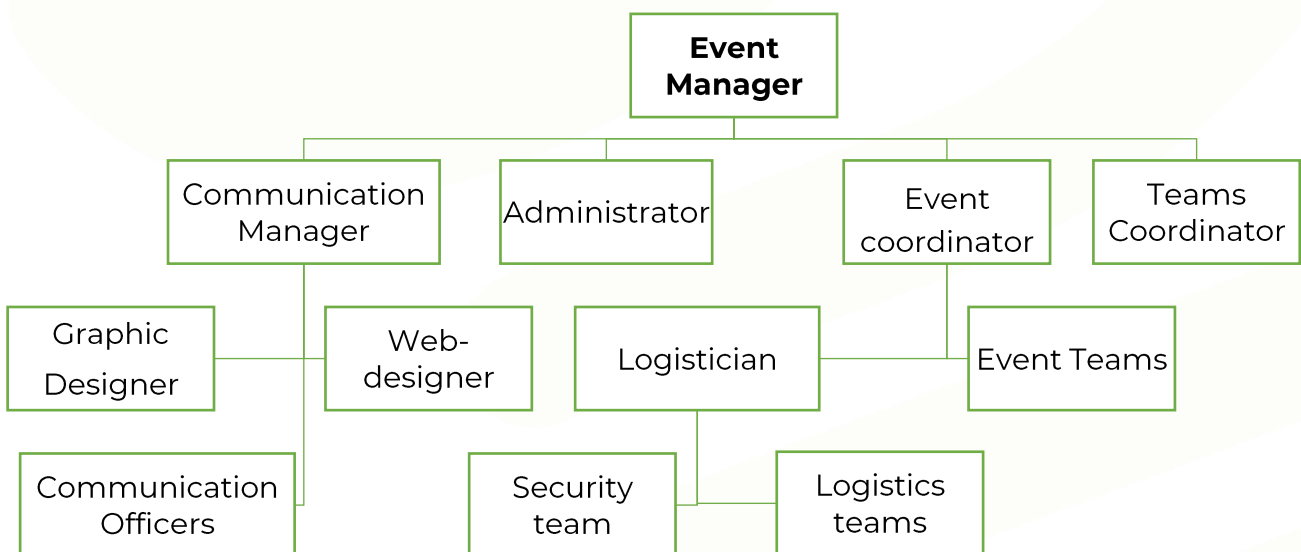
⁶ <https://www.unesco.org/en/articles/unesco-launches-new-initiatives-greening-education-classrooms>

Practical guide to organize an Eco-Digithon

This chapter serves as a comprehensive and operational guide for organizing an Eco-Digithon, providing **detailed insights into the practical aspects of planning and execution**. It outlines the key human resources required, delineates the necessary timelines, and breaks down the various phases of the event. By offering **step-by-step instructions and practical recommendations**, this guide aims to equip organizers with the tools and knowledge needed to effectively manage every aspect of the Eco-Digithon.

Human resources involved

The successful organization of the Eco-Digithon relies on several critical roles as detailed in the graph below. The size of the team depends on the dimensions of the event you are willing to organize, as well as the resources available.



An *Event Manager* is central to this process, leading the planning and execution, coordinating various personnel, managing the budget, and ensuring that all tasks are completed within the established timelines.

Supporting the Event Manager is a *Communication Manager*, who oversees the branding and communication efforts. This includes managing a team consisting of a *Graphic Designer* and a *Web Designer* to focus on event promotion and digital outreach. The Communication Manager is also responsible for both communication and dissemination activities: ensuring ongoing engagement with participants, stakeholders, and the general public, as well as overseeing the dissemination of the event's results and outcomes to targeted audiences such as policymakers, educators, and industry experts. This dual focus ensures that the Eco-Digithon not only gains visibility but also maximizes its impact by effectively sharing its findings and contributions. The *Communication Officers* are involved primarily during the implementation phase and are responsible for managing media coverage throughout the event. Although not part of the initial planning team, they play a key role in ensuring that the event receives appropriate visibility during and after its conclusion.

To ensure the smooth operation of the event, an *Event Coordinator* works closely with the Event Manager. The Event Coordinator is responsible for higher-level planning tasks, such as drafting the call for the selection of the host city and venue, coordinating with stakeholders, and organizing side-events. While the Event Coordinator handles these strategic aspects, the more operational responsibilities are managed by the Logician. The Logician oversees all logistical aspects, from conducting site visits to finalizing details regarding accommodation, catering, and the setup of the event space. He/she manages the *Logistics Team*, which are responsible for practical tasks such as arranging classrooms, setting up communication materials, assembling and disassembling gazebos. Additionally, the Logician coordinates with the *Security Team* to ensure the safety and security of the event location, with special attention to the participation of

minors. The Security Team provides 24/7 surveillance of all entry and exit points of the marathon.

The *Event Teams*, which are divided into specialized groups with distinct responsibilities. One group within the Event Teams handles participant registration, welcoming, and information dissemination at the info-point, serving as the first point of contact for all attendees. This team ensures that participants are well-informed and properly registered, providing a seamless entry into the event. Another group within the Event Teams focuses on managing the various events organized across different locations. They work closely with the facilitators of conferences, workshops, and other side events, ensuring that these activities run smoothly and according to schedule. These teams are responsible for coordinating with speakers, managing event logistics on-site, and providing support as needed during each session.

All Event Teams operate under the guidance of both the Event Coordinator and the Logistician, ensuring that their efforts are well-coordinated and align with the broader event plan. This structure ensures that every aspect of the Eco-Digithon is managed efficiently, from participant registration to the execution of individual events.

A crucial role is the *Teams Coordinator*, who works closely with the Event Manager to identify participants for the Eco-Digithon, including VET teams, societal case providers, and thematic and sectoral experts. The Teams Coordinator also plays a key role in selecting challenges and foundational educational materials and oversees the Discovery and Definition phases to ensure effective collaboration and information exchange among all participants.

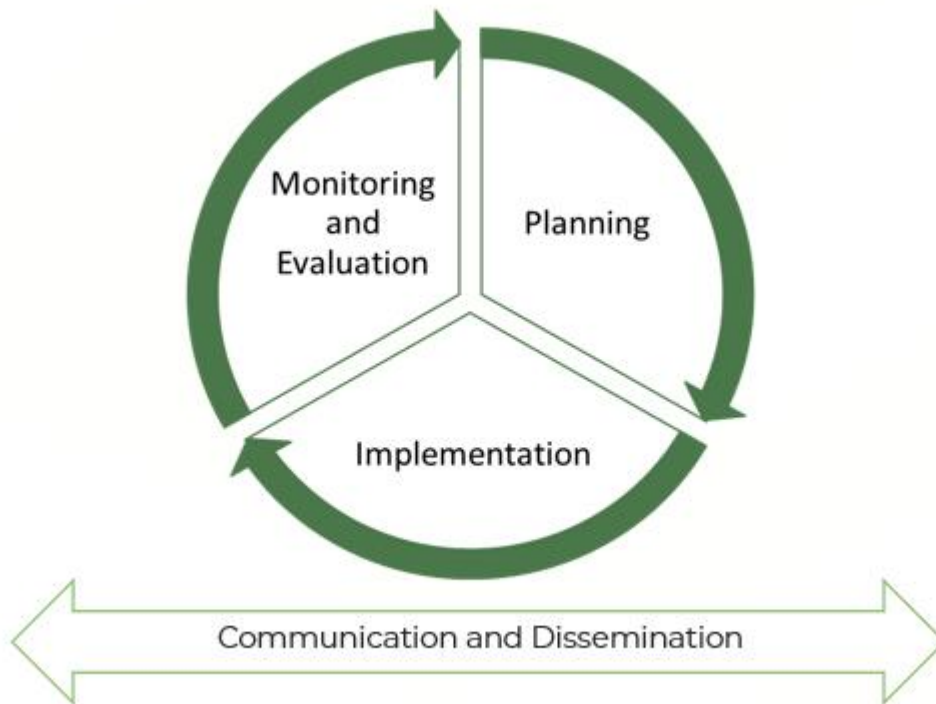
Lastly, an *Administrator* supports the overall management by handling administrative tasks, ensuring smooth operations, and maintaining organizational efficiency.

Depending on the scale of the Eco-Digithon, these roles may vary. In larger editions, responsibilities may be further divided to manage the increased complexity, whereas for inaugural or smaller editions, the Event Manager may take on additional responsibilities, including logistics and organizing side events. This adaptable and collaborative structure

ensures that the Eco-Digithon is effectively organized, addressing both operational and strategic needs.

Phases

The Eco-Digithon should be managed as a cyclical process involving three key phases—Planning, Implementation, and Monitoring and Evaluation—each of which is essential for the successful execution of a project or event as per graph below.



The *Planning phase* serves as the foundation of the entire process. It is during this stage that the event's main theme and focus are set, including the identification of the primary sustainability challenge(s) that will be addressed by the teams. Additionally, this phase involves developing a comprehensive agenda that includes not only the core activities of the Eco-Digithon but also a series of side-events aimed at engaging a general audience and enhancing the overall experience. The planning phase ensures that all

logistical arrangements, such as venue selection, accommodation, and transportation, are meticulously organized.

Once the planning is almost complete⁷, the process moves into the *Implementation phase*, which culminates in the Eco-Digithon event itself. This phase is where the plans come to life, beginning with the earlier stages dictated by the Discovery and Definition phases of the Design Thinking methodology. These stages are crucial as they guide the teams in deeply understanding the challenges at hand and defining their approach to potential solutions. The implementation phase is also where the side-events—such as conferences, workshops, labs, and the Kids Campus—are organized. These activities are designed to complement the Eco-Digithon, offering additional learning and networking opportunities not only for participants but also for the broader community.

Following the implementation, the process transitions into the *Monitoring and Evaluation* phase. It is designed to capture both logistical feedback and educational outcomes, with a particular emphasis on the latter. This dual approach ensures that the Eco-Digithon is both well-organized and impactful in fostering the development of critical competencies among VET students. It is also noteworthy to state that monitoring also occurs throughout the event, allowing for ongoing oversight and adjustments as necessary to keep the event on track. This phase is crucial for learning and refining strategies for future initiatives, ensuring that each iteration of the event builds on the insights gained from previous experiences.

The horizontal arrow within the graph indicates that *Communication and Dissemination* efforts are not confined to any single phase but are ongoing throughout the entire process. These activities ensure that all stakeholders remain informed and engaged and that the outcomes are shared effectively. Due to its integral role in every phase, Communication and Dissemination is afforded a dedicated sub-chapter. The next

⁷ Some logistics arrangements such as accommodation and transportation of Eco-Digithon participants can be completed during the Implementation Phase.

section of this chapter will develop the most important activities in the planning, implementation, and monitoring and evaluation phases.

Planning

Activities	Description
<p>Define the period and the dates of the Eco-Digithon</p>	<p>When selecting the dates for the Eco-Digithon, it is important to align them with the academic calendar of VET institutions, as they are central to the event's methodology. The timing should ideally coincide with the academic year, particularly with the semesters or terms when students are engaged in internships, placements, or other curriculum-based activities, to better match the needs and schedules of these institutions.</p> <p>Additionally, avoid scheduling the event during other significant events in the host city. If it is not possible to avoid these dates, strive to integrate the Eco-Digithon as much as possible with the other event to maximize engagement and impact.</p> <p>For enhanced visibility, consider choosing dates that align with international days or notable events; further information can be found here.</p> <p>The duration of the Eco-Digithon itself can range from 24 hours to 3 days, depending on the scale and format of the marathon. Besides the contents, various side-events should be proposed to both the participants at the Eco-Digithon and the general audience. This</p>

	<p>means that the overall programme should last longer than the marathon itself.</p>
<p>Define the location of the Eco-Digithon</p>	<p>When defining the location for the Eco-Digithon, the choice should be influenced by the participants and available financial resources. In any case, it is recommended to select a location that can accommodate both the marathon and any side events. To ensure this, consider launching a public call inviting various municipalities to participate by offering the use of multiple facilities for different purposes. For instance, a venue specifically dedicated to hosting the marathon that should be easily accessible and close to essential services such as restaurants and hotels. It's crucial that the space designated for the marathon is easily monitorable. This is especially important if minors are participating, as ensuring maximum safety throughout the event is essential.</p> <p>Additionally, other facilities, such as conference halls, could be used for organizing side events. When choosing classrooms, halls, and other venues, it is essential to ensure that a strong and reliable internet connection is available. This approach will help to effectively manage the logistics and enhance the overall experience for all participants.</p>
<p>Identify the main challenge(s) and foundational educational materials</p>	<p>Since the Eco-Digithon is a social impact marathon, it is crucial to establish from the outset that the challenge topics must be centered around the SDGs. You can choose to focus on a single SDG or address several, depending on the specific objectives of the</p>

	<p>event and the interests and/or expertise of the participants.</p> <p>Additionally, it is essential to clarify that the challenge requires the development of an innovative digital or technological solution with real-world applicability.</p> <p>To support participants in effectively tackling these challenges, organizers should consider identifying and collecting foundational educational materials related to the chosen SDGs and related challenge(s). These materials will be made available to VET students and participants to ensure they have access to essential knowledge and resources, allowing them to build a strong foundation as they work on their solutions.</p> <p>The main challenges should be shared in advance not only with the participants but also with the municipalities where the marathon will take place. This approach can significantly enhance the event's impact and encourage the participation of the local population.</p> <p>To further integrate the community and the event's goals, side-events should be designed around the main challenge, reinforcing the focus and encouraging broader engagement.</p>
<p>Identify the VET centers, the societal case providers, the thematic and sector experts and other stakeholders to involve</p>	<p>A crucial aspect of the Eco-Digithon is the identification of target groups and namely, the <i>VET teams</i>, the <i>societal case providers</i> and the <i>thematic and sector experts</i>. These can be identified both through the established network of the organizer and/or by launching dedicated public calls. It is</p>

	<p>important to note that each target group may involve their own network, which can help in consolidating existing partnerships or initiating new collaborations with specific entities.</p> <p>When launching the call for VET centers, it is essential to emphasize that the Eco-Digithon should be integrated into the school curriculum to maximize the outcomes and impact of the event.</p> <p>Additionally, it is vital to clarify from the outset the roles and timelines required of each participant, both for the preparatory phase and for the marathon itself. Another key point is to ensure that at least one member of the solution providers is present during the final event. This information must be included in the public call for selection, along with the criteria for evaluating the winners, the awards, the eligibility criteria to be a participant and the regulations of the Eco-Digithon (see Annex 2).</p>
Awards and follow-up	<p>As the Eco-Digithon is a competition, it is essential to clearly define and communicate the awards that will be provided to the winning teams. These awards can be several, such as recognizing the most innovative idea, the most sustainable solution, or the most inclusive project. This approach ensures that multiple participants are acknowledged for their contributions. The awards could be symbolic or monetary, with the possibility of funding for the up scaling of the solutions, depending on the resources available for organizing the Eco-Digithon.</p>

	<p>However, perhaps the most significant award is the recognition of the skills and competencies acquired by the VET students throughout all the process.</p> <p>Furthermore, planning for the Eco-Digithon should include strategies for the follow-up and potential up-scaling of the solutions created by the participating teams. Depending on the network of partners and available resources, various opportunities may be offered to participants to further develop and apply their solutions, such as incubation programs, field application tests, and dissemination and exploitation events.</p> <p>It is crucial that all participants are made aware, from the moment they decide to enroll, of how and when their efforts will be recognized and further developed.</p>
<p>Setting-up the side events</p>	<p>Besides the marathon, it is crucial to propose a variety of side-events that cater both to the participants of the Eco-Digithon and the public. These side-events serve as a valuable opportunity to engage the host community and foster a broader discussion around the specific themes of the marathon.</p> <p>Actively promote and integrate the local cultural heritage into the side-events, making the Eco-Digithon not just a marathon but a celebration of the community's unique identity.</p> <p>When planning these activities, one of the first groups to involve should be the participants of the Eco-Digithon, especially the companies, academia, and other stakeholders. These entities can derive further</p>

	<p>benefit from the marathon by acting as panelists in workshops or conferences. Their expertise can enrich the discussions and provide valuable insights to both the participants and the audience.</p> <p>Additionally, the side-events can include a wide range of activities such as cultural exhibition, film screenings centered on the Eco-Digithon theme, practical workshops like cooking classes, and hands-on labs that engage the public in concrete, interactive ways. The key is to ensure that these activities are accessible and free of charge, encouraging maximum participation and allowing the community to fully engage with the event. By doing so, the Eco-Digithon not only fosters innovation but also strengthens community bonds and promotes broader public awareness of sustainability issues.</p>
<p>Setting up the teams</p>	<p>Each team participating in the Eco-Digithon should ideally consist of at least 10 VET students and 2 teachers.</p> <p>Thematic and sector experts, as well as societal case providers, play a crucial role in guiding the teams. Regardless of their numbers, it is essential to organize an initial meeting, likely online, where societal case providers can present their local challenges and specific needs to the participating teams.</p> <p>If the number of these experts and providers is limited, they may not be assigned to a specific team but will instead collaborate across multiple VET teams that have chosen to address the particular challenges they</p>

	<p>are associated with or have expertise in. This structure clarifies the team composition and the flexible involvement of external actors depending on their numbers and the needs of the VET teams. The ultimate goal is to ensure that the teams are balanced, providing an equitable distribution of skills and perspectives.</p> <p>Should a particular challenge associated with a thematic or sectoral expert, or a societal case provider not be selected by any team, it is still advisable to invite these experts to the marathon. If possible, they should be actively included in the side events, contributing their expertise and engaging with the broader community involved in the Eco-Digithon.</p>
<p>Setting-up the Jury</p>	<p>At the Eco-Digithon, there are two types of juries: the social jury and the technical jury.</p> <p>The social jury consists of citizens who, while not necessarily having specific expertise in the theme addressed, can evaluate the teams' solutions based on their perception and the potential social impact of these solutions. This jury plays a significant role as it offers an external perspective, reflecting the opinions and needs of the broader community. Participation in the social jury is open and can be organized through registration, which may occur even during the Eco-Digithon, encouraging broad community involvement.</p> <p>In contrast, the technical jury is made up of professionals and experts with specific expertise in areas relevant to the Eco-Digithon theme. This group</p>

of judges is responsible for evaluating the innovative, digital, and technological solutions developed by the teams, using predetermined criteria that may include factors such as originality, effectiveness, sustainability, and scalability of the solutions. The composition of the technical jury requires early planning, including the selection and invitation of external experts who will provide qualified and authoritative assessments of the competition's outcomes.

During the planning phase, it is crucial to clearly define the criteria for selecting members of both juries and to initiate the recruitment process for the technical jury, ensuring that it comprises prominent experts who are well-prepared to assess the presented solutions.

Implementation

Activities	Description
Discovery and Definition phase	<p>This initial stage of the Eco-Digithon follows the <i>Design Thinking</i> methodology, starting with the Discovery Phase and transitioning into the Definition Phase. During the <i>Discovery Phase</i>, teams—comprising VET teams, VET students, societal case providers, and thematic or sector experts—are formed based on the selected main challenge. The primary focus is on gathering and sharing information to deeply understand the challenge at hand. Indeed, this phase involves accessing foundational educational materials that have been pre-collected to align with the main challenge. These materials provide a strong starting point, but it is crucial for teams to engage in further research and data collection to deepen their understanding of the specific societal problem they are addressing. The societal case providers will contribute additional, context-specific information, further enriching the team's knowledge base. Moreover, the thematic and sector experts play a critical role as mentors and tutors, guiding the discovery process. These experts are likely to share additional resources and insights as the teams explore the problem space, ensuring that the solutions developed are both innovative and grounded in real-world applicability.</p>

	<p>In the subsequent <i>Definition Phase</i>, teams begin to synthesize the insights gathered during discovery to clearly define the problem and explore potential solutions. This is also where the <i>Prototyping Phase</i> starts, albeit at a low-fidelity level. Teams work on creating early, simple versions of their solutions, which may be digital, technological, and innovative in nature. These prototypes serve as preliminary models, allowing for initial testing and feedback. At this stage, the focus is on exploring and iterating on ideas rather than developing a fully polished product. The process of prototyping during the Definition Phase is crucial for translating theoretical knowledge into practical, actionable solutions. As teams refine their prototypes, they move closer to developing effective, innovative solutions that address the real-world challenges posed by the Eco-Digithon.</p>
<p>Eco-Digithon Competition</p>	<p>The final phase of the Eco-Digithon marks the culmination of the prototyping process. At this point, the VET students, teachers, societal case providers (with at least one representative), thematic and sector experts, along with additional digital or technological experts, work intensively—often around the clock—to refine and present their innovative ideas. As previously explained, the competition can last from 24 hours to 3 days, depending on the event's structure.</p> <p>The competition kicks off with a Launch Conference, which includes participation from local institutions, such as the mayor of the chosen location, and an</p>

	<p>introduction of the jury members. During this conference, the teams and their chosen challenges are presented to the audience. This is followed by a review of the competition rules, ensuring that all participants are aligned before the intense work begins.</p> <p>During this phase, teams must also prepare a compelling pitch to convince the judging panel that their solution is the best. The Eco-Digithon concludes with the Official Presentation of the solutions and the <i>Award Ceremony</i>. On the final day, teams present their developed prototypes to the jury and audience. The event culminates in the selection of the winning solution, highlighting the most innovative and impactful idea to real societal problem generated during the competition.</p>
<p>The Eco-Digithon side-events</p>	<p>During the Eco-Digithon, a variety of side-events and continuous activities should be organized to engage both the participants and the hosting community.</p> <p>The agenda for these side-events must align with the key events of the Eco-Digithon. For instance, on the first day, the focus should be on the Launch Conference, with only ongoing activities like the kid campus commencing, while other events are scheduled around this highlight. Similarly, on the final day, the primary focus should be on the pitches by the teams and the Awarding Ceremony, with other activities being minimal to allow full attention on these core elements.</p>

Depending on the territorial extent of the Eco-Digithon, at least one info-point should be established to assist participants and visitors as well as to register them to the side-events that requires it. Additionally, maps of the city with details about the locations of side-events, refreshment areas, and other key points of interest could be provided at the info-point. This will help guide participants effectively throughout the course of the Eco-Digithon, ensuring they can fully engage with all aspects of the marathon.

Other activities in this phase are primarily logistical and involve setting up locations, finalizing transportation arrangements, accommodations, and so on.

Monitoring and evaluation

This phase of the Eco-Digithon Methodology focuses on the comprehensive monitoring and evaluation of the entire program. The evaluation process is divided into two primary types, each addressing different aspects of the Eco-Digithon experience.

The first type of monitoring aims to assess participant satisfaction with various logistical and organizational aspects of the event, including the side events. This involves distributing questionnaires to all participants—VET centers, students, teachers, local stakeholders, and experts who competed to provide eco-innovative solutions. The feedback gathered will cover elements such as venue arrangements, accommodation, catering, transportation (if provided), the timing and location of the Eco-Digithon, the side events, and the awards ceremony.

Additionally, participants in the side events will be asked about their satisfaction, suggestions for improvements, and interest in future editions. This feedback is crucial for identifying areas where the event can be refined, ensuring that future editions offer an enhanced experience for all involved.

The second, and perhaps more significant, type of evaluation centers on assessing the competencies acquired by the students during the Eco-Digithon. In this context, the role of teachers is essential. They are instrumental in co-creating the questionnaires and conducting semi-structured interviews, providing the necessary support to ensure that these assessments are effectively carried out. This evaluation seeks to validate and quantify the skills gained, both hard and soft, and to assess the collaboration with other stakeholders, as well as the contribution made toward societal improvement and the achievement of the SDGs. The monitoring process will encompass not only the Eco-Digithon marathon itself but also the Discovery and Definition phase, providing a holistic view of the educational impact.

Similarly, the level of participation, collaboration, and the overall usefulness of the Eco-Digithon in terms of social impact and networking among other relevant stakeholders (e.g., experts, local authorities, CSOs) will also be evaluated.

These monitoring and evaluation efforts are designed to identify best practices and inform the continuous improvement of future Eco-Digithon editions, ensuring that the event not only meets its logistical and organizational goals but also achieves its core educational mission.

Communication and Dissemination

Throughout all phases of the Eco-Digithon, Communication and Dissemination play a pivotal role. These activities are ongoing, ensuring that all stakeholders are continuously informed and engaged from the initial planning stages through to the event's conclusion and beyond. Effective communication is essential for maintaining

momentum, fostering engagement, and ensuring that the Eco-Digithon achieves its intended goals. Dissemination efforts focus on sharing the outcomes and lessons learned with a broader audience, thereby maximizing the event's impact.

The communication strategy begins with the development of clear objectives tailored to each phase of the Eco-Digithon. In this initial stage, the primary focus is on promoting the event and raising awareness about its objectives. Key activities include:

- **Creating a Dedicated Website:** This serves as the central hub for all information related to the Eco-Digithon, including event details, registration, and updates.
- **Establishing social media Pages:** These platforms are crucial for engaging with potential participants and the broader community, providing regular updates, and creating a sense of anticipation.
- **Publishing Articles and Flyers:** Online articles and flyers help spread the word about the event, its goals, and the opportunities it offers to various stakeholders.
- **Online Promotion:** This includes sponsored posts on social media, email newsletters, and collaborations with online platforms to ensure the widest possible reach.

These efforts aim to attract participants, partners, and the local community, ensuring broad engagement from the outset.

As the Eco-Digithon enters its implementation phase, communication efforts intensify, focusing on both the event's logistics and its real-time coverage. This phase is critical for maintaining engagement, building momentum, and ensuring that the event's objectives are clearly communicated to all stakeholders. The key activities during this phase include:

- **Narrative Storytelling and Community Building:** With participants now identified, communication shifts towards telling their stories. This involves highlighting their expectations, roles, and contributions, helping to foster a sense of community and anticipation as the event approaches. Sharing these narratives on social media

and the event's website helps engage both participants and the broader audience.

- **Agenda and Side-Events Promotion:** The detailed agenda, including all main activities and side-events, is published and disseminated widely. This ensures that participants and attendees are fully informed about the schedule, allowing them to plan their involvement effectively.
- **Pre-Event Press Conference:** About a week before the Eco-Digithon, a press conference is organized in the municipal halls of the host city. This conference is designed to inform the local community and the broader public about the upcoming event, its significance, and the expected impact.
- **Venue Dressing and Participant Guidance:** To ensure a smooth and enjoyable experience for all participants a detailed map of the event locations, highlighting where the side-events, refreshment areas, and key marathon activities will take place. These maps should be easily accessible both online and at physical information points throughout the venue. The venue should also be dressed with clear and informative signage, posters, banners, and totems that guide participants and provide essential information about the event.
- **Launch Conference:** The Eco-Digithon officially begins with a high-profile Launch Conference. Held in the host city's municipal halls, this conference serves multiple purposes such as introduce the participating teams and the technical jury to the audience and stakeholders and a reiteration of the competition rules.
- **Real-Time Event Coverage:** Continuous coverage of the Eco-Digithon is essential to keep the momentum going by regularly posting updates on dedicated social media platforms. Live tweeting, Instagram stories, and Facebook updates can help to engage a wider audience in real time.
- **Event Photography and Video:** Capturing key moments during the event, including side-events, team collaborations, and the pitches, to create visual content for post-event dissemination and promotional materials for future editions.

Following the conclusion of the Eco-Digithon, the focus shifts to dissemination. The goal is to share the outcomes, successes, and lessons learned with a broader audience, amplifying the event's impact and securing support for future editions. Some dissemination activities can be:

- **Publishing Post-Event Article:** Detailed article summarizing the event's outcomes, including the stories of the winners' teams.
- **Post-Event Coverage:** Publish on social media video and pictures capturing the key moments of the Eco-Digithon.
- **Publish Evaluation Report:** Detailed reports with captivating graphics including feedback from participants are published in the website and shared with relevant stakeholders.

By carefully planning and executing communication and dissemination strategies across all phases, the Eco-Digithon can achieve lasting impact, not just within the immediate community but far beyond.

Budgeting

The Eco-Digithon certainly requires a significant investment of resources, but many costs can be reduced or minimized. Below are some strategies for organizing an Eco-Digithon with limited resources.

When planning the budget for your Eco-Digithon, strategically select a topic that aligns with your organization's existing activities. This approach ensures that many expenses are already covered and opens up opportunities for cross-project collaboration.

To further manage costs, involve a diverse range of partners. They can contribute in various ways: by participating in or organizing side activities, providing essential

technical services or gadgets as technical sponsors, and offering financial support, patronages, or special awards as supporters.

Additionally, consider recruiting volunteers for key roles during the event to reduce personnel costs and enhance the overall experience.

Explore cross-sponsorship opportunities with other organizations to share resources and reduce expenses.

At the same time, ensure that the budget remains goal-oriented, guaranteeing that all educational activities are effectively carried out. By leveraging these contributions and strategies, you can significantly lower the financial burden on your organization while maximizing the event's impact and reach.

List of Annexes

Annex 1 – Infographics



ANNEX 1 - INFOGRAPHIC

THE DEFINITION

The **Eco-Digithon** is an **educational marathon** primarily targeting Vocational Education and Training (VET) centers, focused on **creating and prototyping innovative digital and technological solutions to real societal and local problems**.

It involves a competition within and among VET centers and/or VET teams on environmental and sustainability challenges. Indeed, the solutions developed are aligned with the Sustainable Development Goals (SDGs), ensuring a global perspective on local challenges.

It also **promotes grassroots innovation through a participatory and multidisciplinary approach** as it engages not only VET centers but also stakeholders, policy-makers, companies, members of the academia and experts coming together for social hacking.

TARGET GROUPS AND PHASES



Annex 2 – The marathon regulation

Despite its evident social dimension, the Eco-Digithon is still a competition and requires a clear set of rules that must be shared well in advance with all participants. Below is a non-exhaustive, but detailed, list of topics and suggestions to consider when drafting the regulation for the event.

Topics	Suggestions and exemplary text
Objectives	Describe the context and the specific challenges of the Eco-Digithon. Outline the intended objectives and the benefits of participating in the co-creation of the innovative, digital, technological solution for all those involved, as well as for society at large.
Participants	List all the eligibility criteria and the different profiles of the individuals who will cooperate in the co-creation teams or are willing to voluntarily support in the implementation of the event. Specify deadlines and methods for applying.
Support people	Explain which other persons will be accredited to enter the Eco-Digithon venue and with what role.
Participation rules	Provide all the relevant information about schedule, non-acceptable behaviors, use of the available resources. As the event organizer you should ensure the presence of appropriate positions for the team's work: table, chairs, power outlets and access to the network dedicated to max. 10 people. Participants must arrange to procure any other necessary equipment for the realization of projects
Venue	Provide clear instructions for the access and the use of the venue, including accreditation and limitation specificities. Although you are offering 24 hours opening service, we suggest you to clarify that starting from 24:00, if there are no participants in the building, this will be closed and reopened the next morning at 6:00.
Responsibility and obligations	Each Participant will use the premises where the event will take place, as well as the materials and equipment that may be made available by the organizers and / or brought by the participants themselves, with the utmost care and diligence, and will strictly adhere to any instruction given by organizers to ensure the safety and security of all participants. In no event premises may be used: <ul style="list-style-type: none"> To carry out activities prohibited by law or otherwise contrary to public order or morality;

	<ul style="list-style-type: none"> • To carry out activities which could be dangerous to persons or property at the event or could cause hindrance or impediment to the smooth running of the event; • For carrying out activities in violation of the rights of third parties, in consideration, including but not limited to trademarks, patents, copyright, etc. <p>It is agreed between the parties that participants are required to use spaces in accordance with the instructions and directives given by the organizer, as well as to any other regulation applicable - safety regulations, fire regulations, etc. In every case, the Participant is required to know and comply with the provisions relating to the use of the space available to it during the presentation of the projects.</p> <p>If in doubt about the correct use of the spaces, the Participant is required to contact the Organizer, who reserves the power to prohibit the carrying out of any activity in contravention of the provisions of this Article, without this leading to any participant right to compensation of sums invested or other charges for participation in the event.</p> <p>Moreover, the Participant acknowledges the event venue and to consider it a safe place and suitable for the performance of Eco-Digithon's activities. The Organizer will not be responsible for any damage incurred to the Participant due to thefts, robberies, fires, earthquakes, unavailability of services (electricity, Internet, etc.), and any other incident, except in cases where the damage is directly attributable to the willful misconduct and / or gross negligence of the Organizer itself.</p> <p>Participants are supposed to supervision of materials used for the Eco-Digithon for the whole duration of the Event.</p>
Guarantees	<p>During the participation at the Eco-Digithon, each participant guarantees that the developed product:</p> <ul style="list-style-type: none"> • Is created during the Hackathon and is an original work of the Participant. • Does not contain any trademark, logo or other element protected by an industrial property right or copyright owned by third parties, or, where there are rights of third parties, the Participant has previously obtained all the necessary permissions and licenses from the owner;

	<ul style="list-style-type: none"> Does not violate other rights of third parties, including, among other things, patents, trade secrets, rights from contracts or licenses, rights of publicity or rights of privacy, moral rights or any other right worthy of protection; Does not subject contracts with third parties; Does not contain any defamatory content, representation, outrageous consideration or any other content that could damage the name, honor or reputation of the organization that represents the idea or any other person or company; Does not constitute a violation of applicable laws and does not contain content that encourage illegal behaviour.
Jury, evaluation criteria and procedures	List all the members of the expert Jury, specifying their job titles and areas of expertise. Provide all the necessary information for the teams to get prepared in a timely and appropriate way to the different phases of the evaluation.
Prize-giving	Indicate when and how the selected solutions will be notified, including details on the available prizes and eventual special awards.
Intellectual property and mentions	<p>All digital products realized during the Eco-Digithon will be published online and licensed under Creative Commons Attribution - Non-commercial 3.0 (CC BY-NC 3.0 GB). The development teams are responsible for the attribution of that license within the deadline for the presentation of products.</p> <p>All Eco-Digithon's products must bear specific mention of their realization in the context of the specific event (include the title), organized by xxxxxxxxxxxx (include the name of the organizer) from xx to xx xx/xxxx (include the days of the event).</p>
Personal data	<p>Personal data collected through the registration will be processed in order to allow the completion of the Eco-Digithon and, in particular, to send notices about the execution of the connected transactions, as well as to fulfil the obligations required by law.</p> <p>The processing of personal data will take place through the use of manual tools, computers and telematics and / or automated communication systems, with purposes strictly related to the aforesaid uses and always in full compliance with the confidentiality requirements and data security. Owner of data processing is the (include the name of the organizer).</p>

Such data may be disclosed for the above purposes to (include the name of the organizer) subsidiaries and / or affiliates in accordance with art. 13-14 of GDPR 2016/679 (General Data Protection Regulation). Notwithstanding the above, we exclude any form of communication or disclosure of personal data to third parties that is not planned as required by law. Each individual may exercise, at any time, the rights referred from art. 15 to art. 22 of the EU Regulation n. 2016/679, by writing to (include the contact email of the organizer).