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GreenHive

Virtual Knowledge Fair





Authors: Gianluca ABBRUZZESE, Nicoleta ACOMI, Ovidiu ACOMI, Marta BURGOS GONZALEZ, Maria del Carmen LOPEZ CRUZ, Miriam LANZETTA, Angela MANGIULLO, Anastasia MARAVELAKI, Dimitra SOFIANOU, Marie TAYLOR, Elaine CLEARY

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List of Abbreviations

Abbreviation	Definition
VET	Vocational education and training
KPI	Key Performance Indicator
SDG	Sustainable Development Goal
NGO	Non-Governmental Organization
MOU	Memorandum of Understanding
NDA	Non-Disclosure Agreement
IT	Information Technology
UN	United Nations
EU	European Union
SWOT	Strengths, Weaknesses, Opportunities, Threats





Introduction

The main objective of this report on the Virtual Knowledge Fair is to present the development of the event and the main results achieved.

The Virtual Knowledge Fair has been an exchange of experiences, best practices and lessons learned among VET teachers on sustainability issues. The aim was to create a space to exchange educational resources that could be included in the educational resources guide that comprises the second part of this work package.

This document presents the Virtual Knowledge Fair, its structure and development and the main results obtained. It is structured as follows.

- Introduction and presentation of the Green Hive project
- Virtual Knowledge Fair, presenting the Virtual Knowledge Fair space and the workshops that have been held.
- Main results and conclusions





1. The Green Hive Project

Green Hive is a Cooperation partnership in the Vocational Education and Training (VET) field co-funded by the Erasmus+ Programme of the European Union. Implemented by a consortium of five entities, such as the *Technological University of the Shannon: Midlands Midwest-TUS* (Ireland), the companies *Lascò* (Italy) and *Femxa* (Spain), and the non-profit and non-governmental organisations *KEAN-Cell of Alternative Youth Activities* (Greece) and *Team 4 Excellence* (Romania), the project aims to increase the capacity of VET providers to prepare learners for the green transition by developing a **European platform-based ecosystem for sustainability education** called the "Green Hive".

The Green Hive will consist of localised hubs for sustainability education, namely the "Green Combs," established within VET providers. While the Hive will be an open and cross-sectoral long-term cooperation network dedicated to innovation, continuous improvement and co-creation in sustainability education, the Combs will make VET providers the managing centre of networks of local stakeholders (i.e., companies, representatives of universities, civil society organisations and professional associations) for learning, networking and cooperating on sustainability challenges.

Hence, the project promotes the establishment of permanent VET co-creation structures where students will be enabled to think in systems, understand the interconnectedness of the economy, society and environment, and ultimately develop their systemic and critical thinking competencies by collaborating with other students and external stakeholders.

Main results of the project:

- a "**Methodological Framework**" for developing a VET sustainability education ecosystem and localised hubs to facilitate the transfer of local experience, knowledge and innovation in the field of the implementation of the **European Sustainability Competence Framework "Green**



Comp", and encourage collective actions of VET providers, learners and external stakeholders to co-create solutions for sustainability.

- a "**Toolkit for the setup and management of Green Combs**", including this how-to guide and canvases to support VET providers in setting up, managing and growing internal hubs for sustainability education.
- "**Educational resources for Green Combs**", including guidelines to implement open spaces for discussion around learner-generated topics among members of localised hubs, micro-learning videos, workshop scenarios and project-based learning experiences in the four competence areas of the Green Comp.
- the "**Green Hive**" platform, connecting the hubs through the Internet and providing capacity-building opportunities and digital tools for VET institutions, knowledge-transfer spaces, and co-creation activities for its members. By the end of 2025, the Green Hive is expected to host and connect at least 15 localised hubs and 200 VET learners in 5 countries.

Learn more at greenhiveproject.eu

Hence, the Green Hive will be a European-wide platform-based network of localized sustainability education hubs established within VET institutions. The Hive will connect educators, learners and other stakeholders to enhance the transfer of local experience, knowledge and innovation for sustainability competence development, and encourage collective actions to co-create solutions for sustainability. The figure in the following page provides a visual representation of the overall Methodological Framework behind Green Hive.



METHODOLOGICAL FRAMEWORK

A EUROPEAN PLATFORM-BASED ECOSYSTEM FOR SUSTAINABILITY EDUCATION

COMPONENTS & FUNCTIONS OF THE ECOSYSTEM



INTERACTION BETWEEN THE PARTIES & WORK FACILITATION



RESOURCES NEEDED FOR THE GREEN COMBS

TOOLKIT TO SET UP AND MANAGE THE COMBS

A How-to Guide, a set of canvases and a MOOC for VET providers, detailing the processes, tools and methods to set up a Green Comb in six development domains, such as **Governance, Organization, Community, Activities, Tools, and Relationships with the Hive**.

EDUCATIONAL RESOURCES

Activities and tools to foster learners' sustainability competencies. For instance: guidelines for **open spaces, microlearning videos, workshops** and **project-based learning experiences** for students, covering the twelve sustainability competencies addressed by the GreenComp Framework.



2. The Virtual Knowledge Fair

The **main purpose** of the Virtual Knowledge Fair was to enhance the exchange of best practices and knowledge among Vocational Education and Training teachers and trainers from the participating countries (Ireland, Italy, Greece, Spain and Romania) in the field of the four areas of competences developed in the “*GreenComp: The European sustainability framework*”¹. These areas of competences are embodying sustainability values, embracing complexity in sustainability, envisioning sustainable futures and acting for sustainability. For each of these areas, three types of competences are developed as shown in Figure 1.



Figure 1: Areas of competence in Green Comp

These four areas of competences have been maintained in the Virtual Knowledge Fair, building a virtual pavilion for each area so that we had **four virtual pavilions**: Sustainability Values; Sustainability Futures, Sustainability Actions and System Thinking for Sustainability.

The names of the pavilions have been shortened to make them easier to navigate, although the themes of each pavilion have been kept in line with the four thematic areas of competence presented here. Thus Embodying sustainability values corresponds to the Sustainability Values pavilion, Envisioning sustainable futures to the Sustainability Futures pavilion, Embracing

¹ Bianchi G., Pisiotis U. & Cabrera M. (2022). *GreenComp The European sustainability competence framework*, Punie, Y. and Bacigalupo, M. editor(s), EUR 30955 EN, Publications Office of the European Union, Luxembourg, 2022, ISBN 978-92-76-46485-3, doi:10.2760/13286, JRC128040.



complexity in sustainability to the System Thinking for Sustainability pavilion and Acting for sustainability to the Sustainability actions pavilion.

In addition to the Virtual Knowledge Fair, **four workshops** were held, corresponding to the pavilions 'thematic.

For the Virtual Knowledge Event a landing page was created and shared on the Green Hive project page in the news section. The image of the landing page can be seen in figure 2.

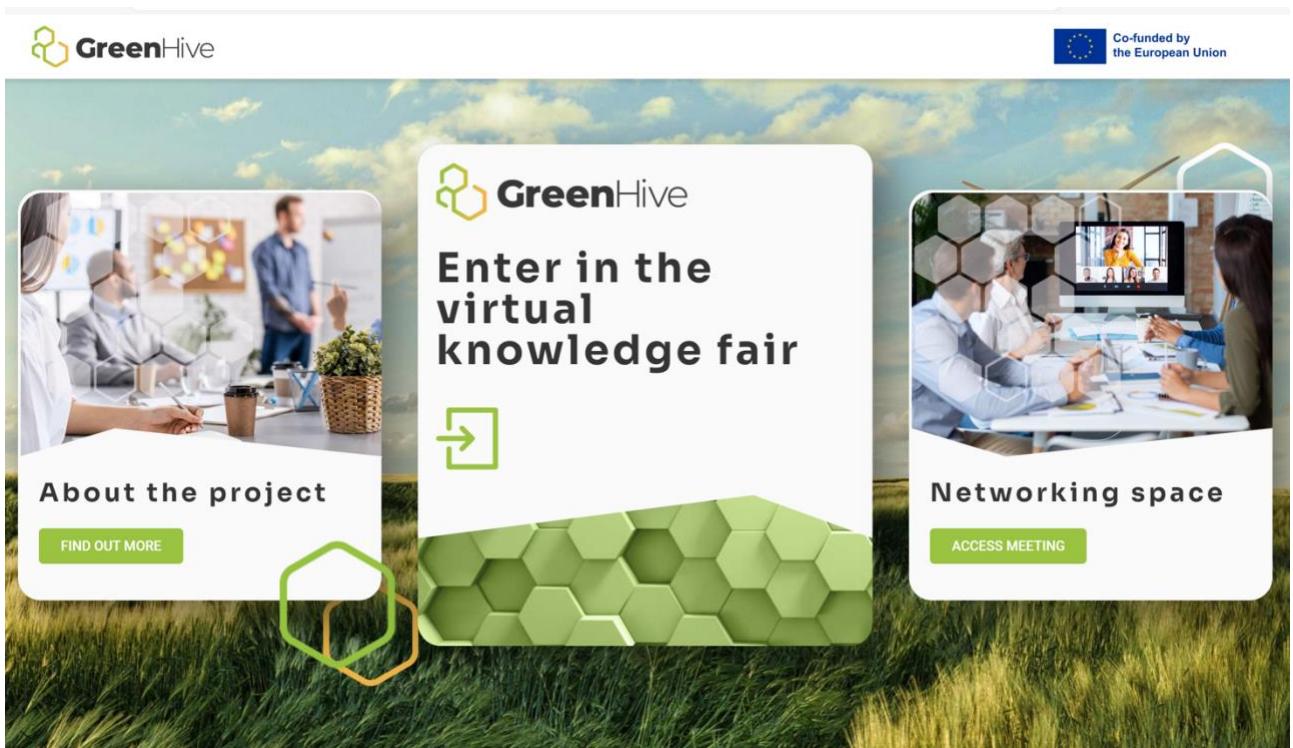


Figure 2: Landing page

The following aspects are found in each of the sections:

1. **About the project.** In this part, the access to the Green Hive project website is provided.

Information about the project, the partners, the previous results obtained, news and contact with the project can be found.

2. **Networking space.** In this part, the link to the workshop sessions is shared. The link was created in Zoom and the sessions were held on 2 and 3 September 2024 with a duration of two hours. This aspect will be developed in more detail in the section 2.2.



3. **Virtual Knowledge Fair.** As already indicated above, four pavilions have been developed.

These four pavilions coincide with each of the areas of competences. In addition, a general stand with information was created. The section 2.1 describes the content of the Virtual Fair.

2.1 The Virtual Knowledge Fair space

As soon as the participant accesses the Virtual Knowledge Fair, he/she is confronted with the following screen with indications on how to move around the page.

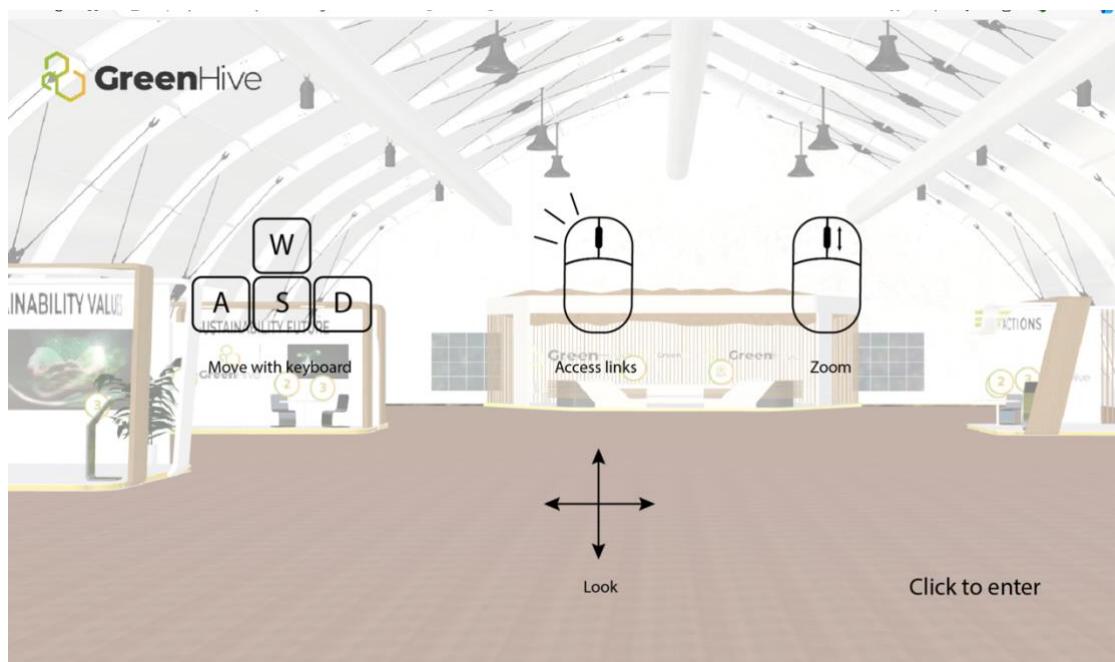


Figure 3: Access to the Virtual Knowledge Fair Space

Subsequently, the participant can move around the space. Some images have been selected to show the different pavilions and the stand at the end of the virtual space (Figure 3 and Figure 4).



Figure 4: Two pavilions



Figure 5: Two pavilions and general stand

In each of the pavilions there are three numbers for the participant to click on. If he/she does so, he/she will find a best practice that is related to the area of competence developed in the pavilion. The best practices are taken from the materials developed in WP2: Methodological Framework. On the general stand a summary of the competence areas appears (Figure 1) and the agenda to the workshops mentioned above as shown in Figure 6.





VIRTUAL KNOWLEDGE FAIR AGENDA

Zoom / 02.09.2024-03.09.2024 /Duration 2 hours

Time (CET)	Duration	Item
17.00-17.15	15'	Welcome remarks and Project introduction
17.15-17.20	5'	Split into thematic workshops
17.20-17.30	10'	Theme introduction dynamic and objectives (sustainability values, system thinking for sustainability, sustainable futures, sustainable actions)
17.30-18.30	60'	Activities and open discussion with the participants
18.30-18.35	5'	Return to main room
18.35-18.55	20'	Results/Insight presentation (5 minutes by thematic)
18.55-19.00	5'	Final remarks and closure

Figure 6: Workshops agenda shared in the virtual space

Participants could freely access the virtual space, with no time restrictions, and access the best practices identified for each area of competence, as well as general information.

2.2 The workshops

The workshop with the participants was held on 2 and 3 September from 17.00 to 19.00 (CET). The same workshop was repeated on both days. The idea was to give participants the opportunity to participate on either day. A Zoom link was created, and the participants were divided into 4 rooms corresponding to each of the pavilions that were developed in the virtual knowledge fair: Sustainability Values; Sustainability Futures, Sustainability Actions and System Thinking for Sustainability. Each partner has dynamized a room. TUS was in charge of sustainability values room, T4E dynamized the sustainability futures room, KEAN was responsible of sustainability actions rooms, Lascò was in charge of system thinking for sustainability and Femxa was responsible of the general room and to solve the technical issues that could appear.

The aim of this workshop was to take ideas to complete the educational resources guideline. The following table presents some guiding questions that were created to stimulate the discussion.



You have seen some best practices at the virtual knowledge fair pavilion, do you know of any other examples or practices that you can share with us? (Try to focus on the theme of the pavilion)	
From your experience, what methodologies do you use to work on this competence? How do you work on this competence?	
What activities do you usually carry out with students to work on this competence, and can you describe them briefly?	
What tools do you use to work with your students on these competences?	
What techniques do you use to encourage open discussion?	

In addition, it was proposed a workshop scenario (to be collaboratively filled in by the participants on a virtual whiteboard – e.g., Jamboard or Miro)

Title	[Workshop Title]
Objectives	<ul style="list-style-type: none">• [Objective 1]• [Objective 2]
Competences	List the relevant GreenComp competences this workshop aims to foster: <ul style="list-style-type: none">• [Competence 1]• [Competence 2]• [Competence ...]
Target Group	<ul style="list-style-type: none">• [Target Group 1]• [Target Group 2]
Group Size	<ul style="list-style-type: none">• [Indicate the relevant range]
Materials	<ul style="list-style-type: none">• [Material 1]• [Material 2]• [Material ...]
Activity Program	





At the beginning of the workshop, the Green Hive project was presented by the coordinator (TUS) and the objectives of the session before the participants were divided into rooms to work on the different competence areas.

At the end of each of the workshops, a survey was presented to the attendees for them to evaluate the Virtual Knowledge Fair and the workshops.

For this survey, Microsoft Forms were used and the responders agreed to their personal data being processed by the Green Hive Consortium and the project team for the evaluation results of the workshop and in accordance with the GDPR regulations.

The Virtual Knowledge Fair was left open and can be visited from the landing page on the Green Hive project website. The selected best practices for each of the areas of competence are available to the general public.

3. Main results

In the weeks leading up to the workshop, communication took place between the networks of each partner and a registration form was created for people to sign up. 128 attendances were registered to participate in the workshops. The following table shows the distribution of participants by country. As can be seen in the table 1, there were more participants from Romania and Ireland.



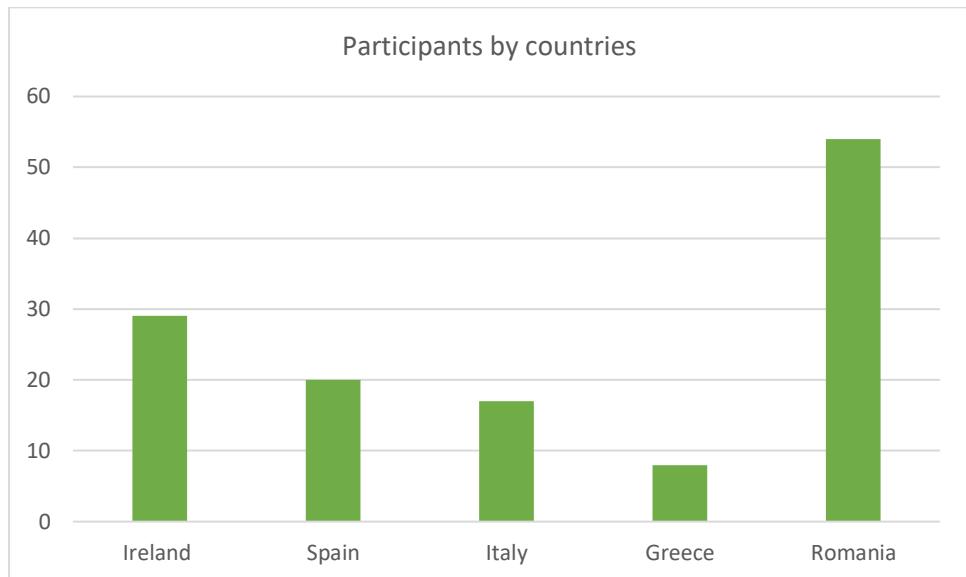


Table 1: Participants by countries

As far as the profile of the participants is concerned, most of them were teachers, followed by trainees and managers. Therefore, we can conclude that one of the main objectives of the Virtual Knowledge Fair has been fulfilled, as it has brought together mainly teachers from the VET sector.

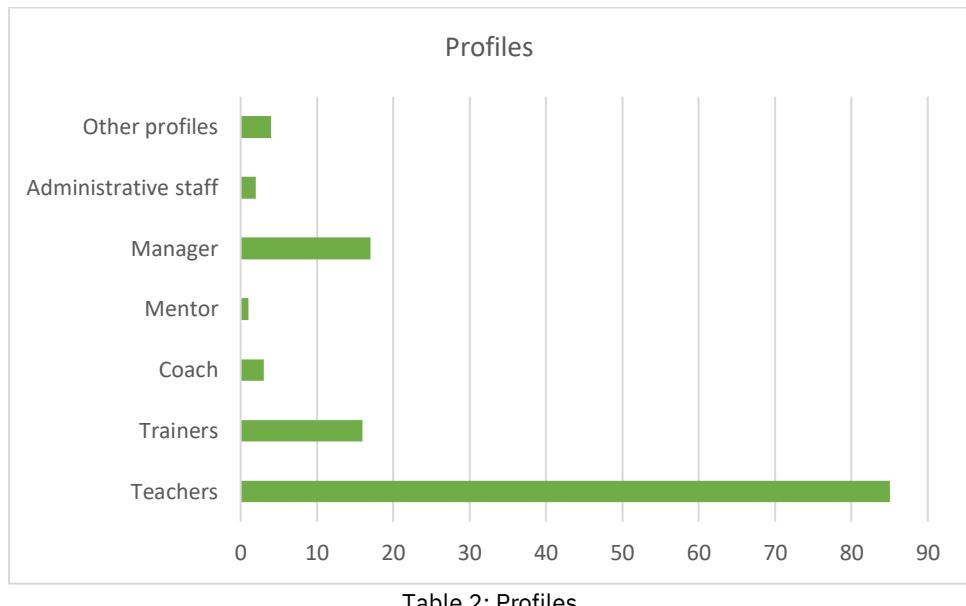


Table 2: Profiles

Finally, as far as gender distribution is concerned, there is a higher participation of women than men, as shown in the table 3 shown below.



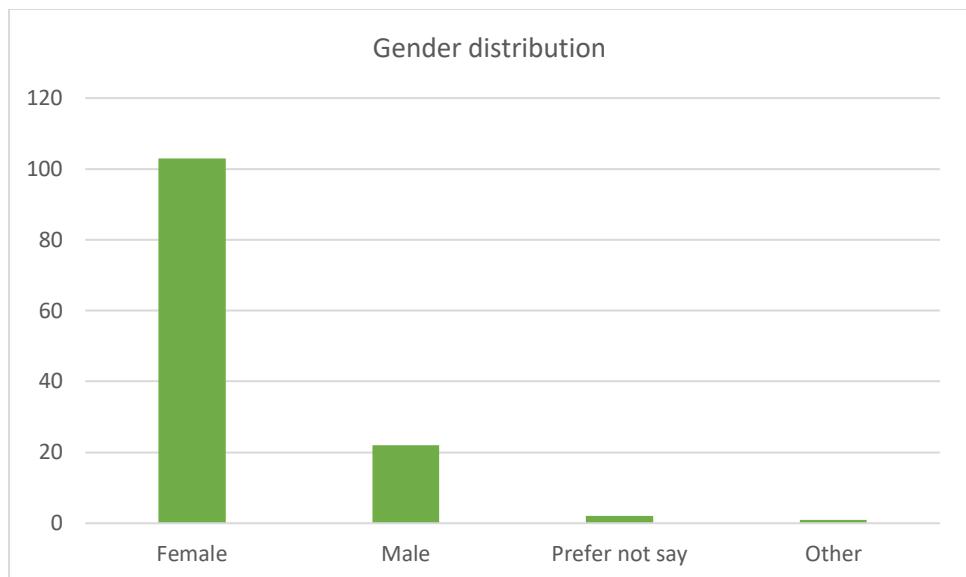


Table 3: Gender distribution

As regards whether the information to the workshops and the Virtual Fair was clear and easy to access, 63 % of the participants strongly agree and 27% agree. Only 10% said they were not sure as shown in the table 4.

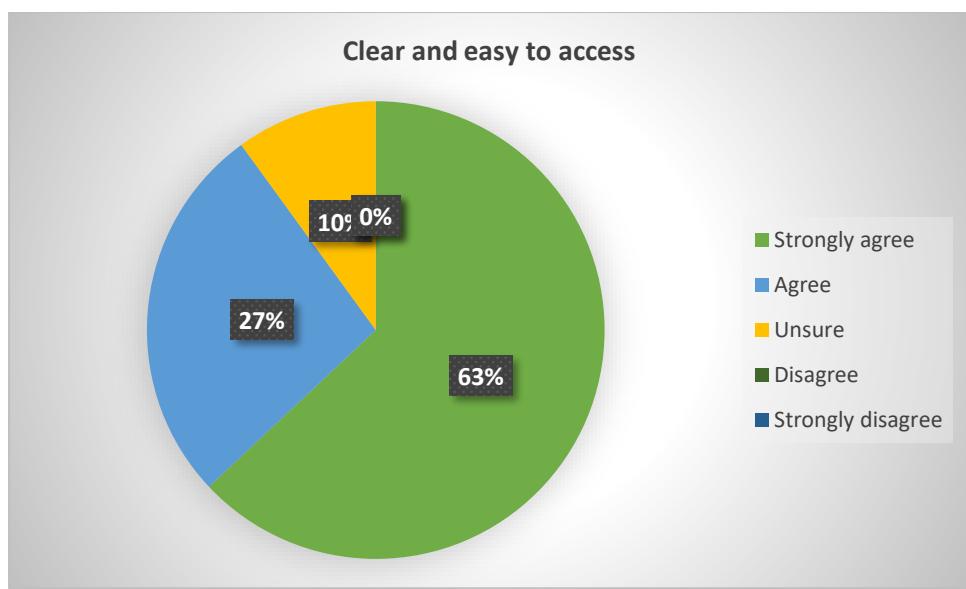


Table 4: Clear and easy to access





In relation to whether they considered that the participation in this workshop has a positive impact, increased knowledge and help to improve learning experience, 83% of the respondents strongly agree and 17% agreed as shown in the table 5. No one disagrees about the positive impact of such events.

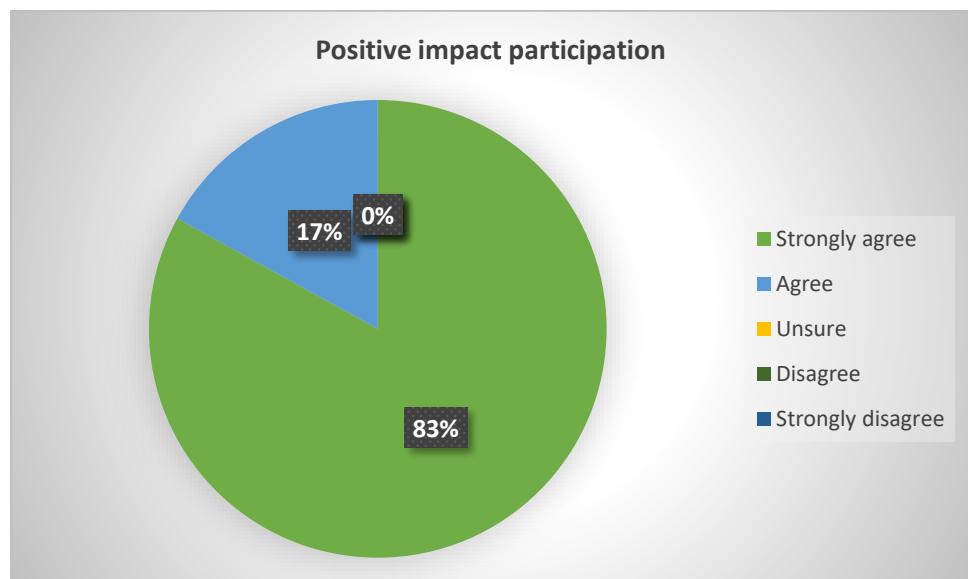


Table 5: Positive impact participation

70% of the respondents strongly agree that participation in this event contributes to becoming a systemic and critical thinker and provides more competences to put into practice with students. 23% agree and only 7% are not sure. (Table 6)

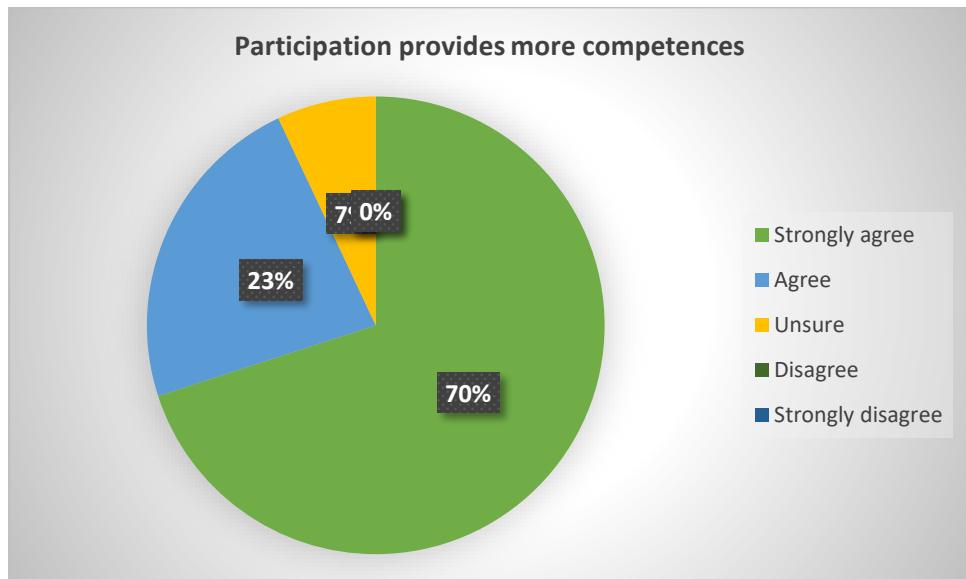


Table 6: Participation provides more competences

In general, 67 % of respondents found the materials provided in the Virtual Knowledge Fair detailed and comprehensive. 27% agreed with this statement and only 6% were unsure about the answer (Table 7)

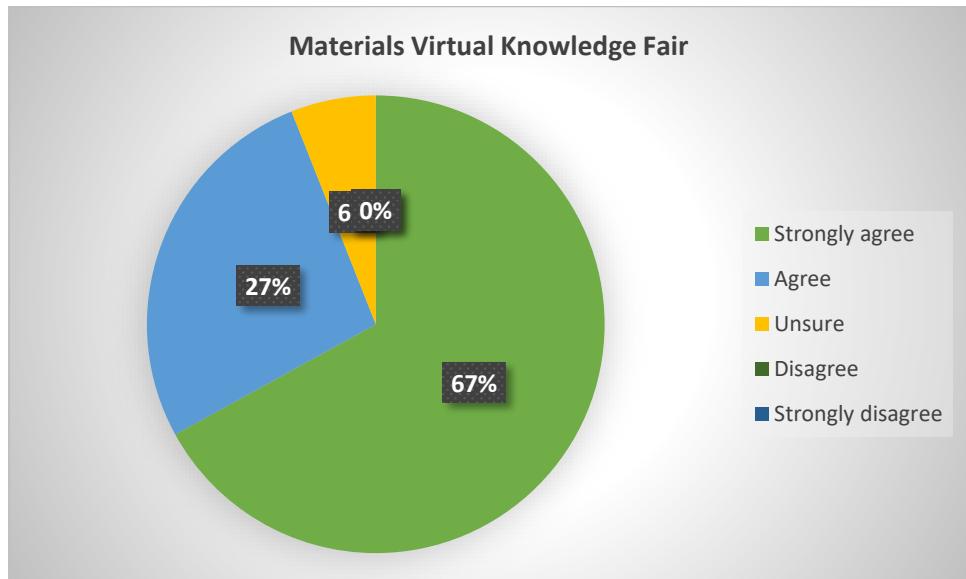


Table 7. Materials Virtual Knowledge Fair



Finally, in relation to the ease of surfing through the Virtual Knowledge Fair, 50% strongly agreed that it was easy, 37% agreed that it was easy and 7% were unsure about the ease of surfing through the Virtual Knowledge Fair. (Table 8)

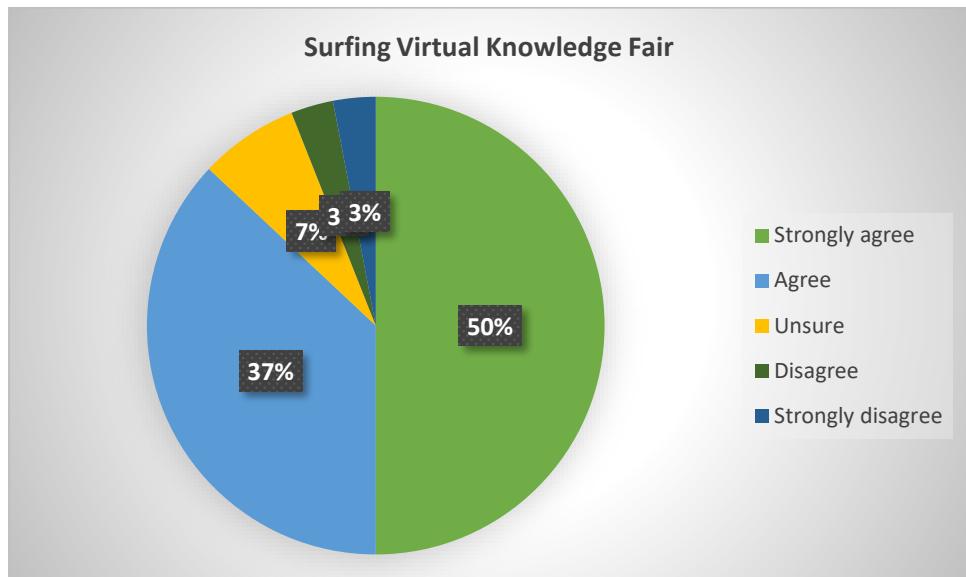


Table 8: Surfing Virtual Knowledge Fair

Regarding recommendations for future events, most of the respondents pointed out the importance of this type of events and of holding workshops to exchange ideas and experiences. Some of the most frequently mentioned words can be seen in the following image.





Finally, at the end of two workshops, the facilitators from each of the organizations (TUS, KEAN, T4E, Lascò and Femxa) exchanged their impressions on the development of the workshops, highlighting the following aspects:

1. High level of participation of the attendees. They contributed sharing new ideas and educational resources to be included in the guide.
2. High level of knowledge of the participants. They are already working on this type of competences with their students and were able to provide new points of view and approaches.
3. Acceptance by the participants of this type of knowledge exchange and workshop.

In addition to the registration results presented here and the survey responses, another piece of information that helps us to corroborate the high level of participation is the visits to the website itself. The Virtual Knowledge Fair was announced in a blog post on the GREEN HIVE project website and the link to the Virtual Knowledge Fair was shared from the web itself. The table below (Table 9) shows the number of visits to both the post and the link to the Virtual Knowledge Fair.

	Visitors Event News	Visitors Join Page
EN	520	85
IT	411	37
ES	31	47
RO	24	25
EL	38	29

Table 9: Visitors event news and join page





Conclusions

This document shows the main results regarding the development of the Virtual Knowledge Fair, the related workshops and the evaluation provided by the participants.

In relation to the objectives of the Virtual Knowledge Fair, the results have been very satisfactory due to the high level of participation of the attendees and the creation of a space for exchange. It is worth highlighting the positive evaluations in relation to the development of the workshops.

In relation to the collection of feedback in relation to best practices and educational resources, this feedback has been collected and integrated in the educational resources guide.

