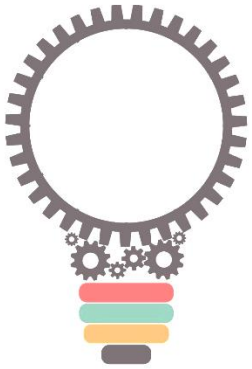

eDea

Ψηφιακές υπηρεσίες για ιδεασμό, συνεργασία & σύνθεση στη σχεδιαστική σκέψη

Deliverable 11

Multiplier events

Ελλάδα 2.0

Με τη χρηματοδότηση της Ευρωπαϊκής Ένωσης

NextGenerationEU

ΓΓΕΚ

ΓΕΝΙΚΗ ΓΡΑΜΜΑΤΕΙΑ ΕΡΕΥΝΑΣ ΚΑΙ ΚΑΙΝΟΤΟΜΙΑΣ

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Introduction

The eDea research team organised a series of events from October 2024 to February 2025, promoting the research project's results with the participation of external user groups. The actions constitute the P11 Multiplier events of the research project.

The activities were attended by students and lecturers who had the opportunity to become familiar with the research project's objectives concerning the application of design thinking, a profoundly anthropocentric methodology for producing innovation in difficult challenges of entrepreneurship and social entrepreneurship. They also had the opportunity to participate in experiential seminars applying design thinking to introduce innovative ideas to address contemporary sustainability challenges. Participants used the eDea digital platform by collaborating in groups on activities created within the platform for implementation in the context of these promotional events.

Seven multiplier events were organized, significantly exceeding the target of one action foreseen in the project fiche. About 220 students and 15 teachers participated in the activities.

The actions were a significant success, generating intense interest in the academic and student community in the region of Magnesia. Press releases and publications on the institutional websites and social networking pages of the University of Thessaly, the Department of Electrical Engineering of the University of Thessaly, and the research group of Creative Learning Technologies of the Department [1][2].

The participants received dissemination material bearing the logos of the research project and the Greece 2.0 program and were issued a certificate of participation.

1. eDea multiplier event with the 3rd High School of Nea Ionia, Volos, 23 October 2024

The eDea research team organised a multiplier event on October 23, 2024, to promote the research project's results. The action occurred in the computer lab of the Department of Electrical and Computer Engineering of the University of Thessaly, and all consortium partners participated.

A total of 22 students and their teachers participated from the 3rd High School of Volos. Students participated in experiential workshops on innovation tailored to their interests, knowledge, and skills. They applied design thinking to introduce solutions for the United Nations Sustainability Goals.

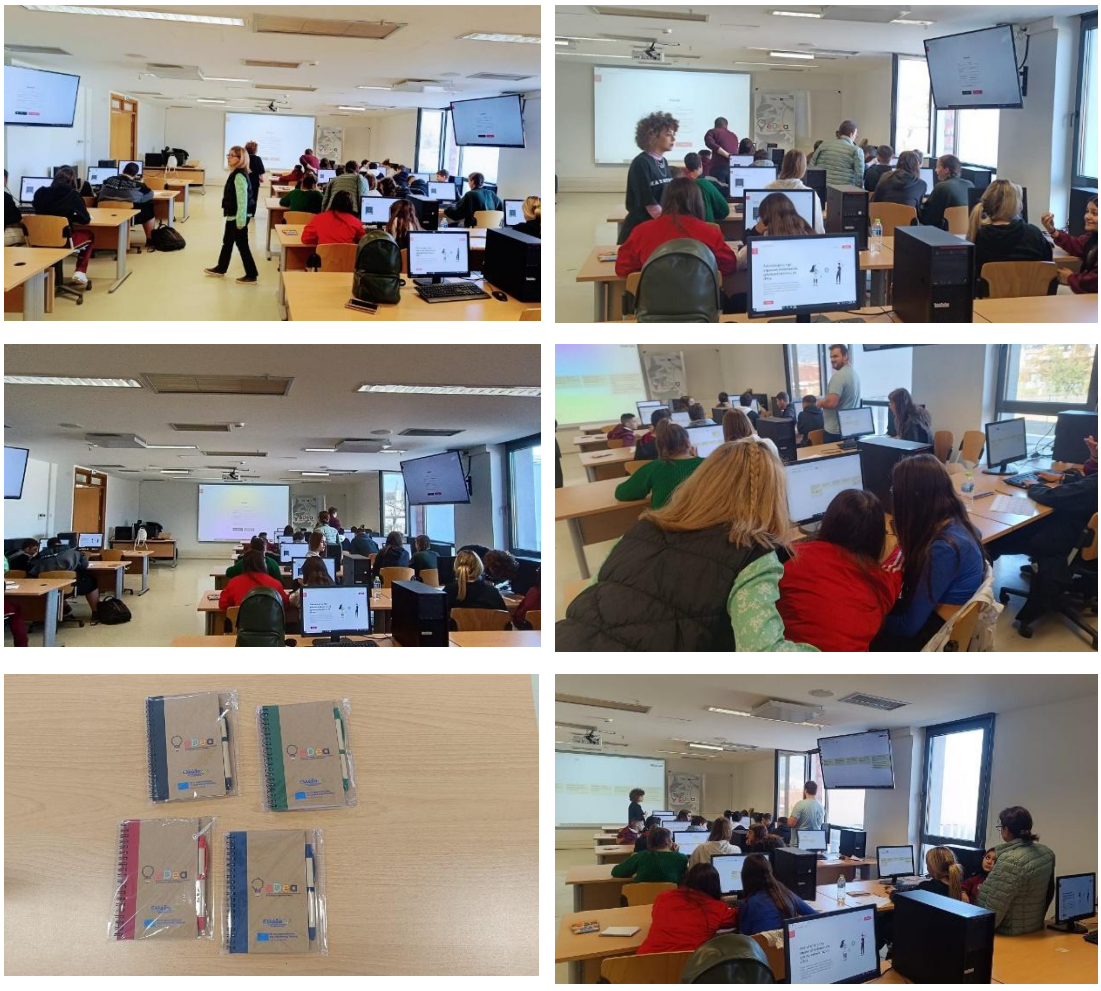

Figure 1. eDea multiplier event with the 3rd High School of Nea Ionia, Volos, October 23, 2024.

Through a process of exploration, ideation, and synthesis, participants presented creative ideas to address broad sustainability challenges, such as managing plastics,

using electromobility to reduce carbon emissions, recycling, preserving biodiversity, raising awareness of the difficulties faced by homeless individuals, and more.

The participants worked in 6 groups of 4 individuals and used the digital platform eDea, which contributed significantly to the collaboration of members and the joint building of ideas. They collaborated on a learning action developed exclusively for the event within the eDea digital platform, while the results of the efforts have been published in the teams' joint digital workspaces on the platform. The learning activity had the following structure:

Innovation action structure for sustainability	
Step 1 Creativity and teamwork	Exercises to encourage creativity and team feeling.
Step 2 Investigate a problem	Description of sustainability challenges through exploring photos, articles, and videos online. Recording the group's thoughts on sustainability, individuals, places, and feelings.
Step 3 Redefine a problem	Redefine the problem to be solved using a description of the form "how we could ... design a solution that ... be useful to a team."
Step 4 Ideation	Recording ideas for solving the problem by team members. General, high-cost, low-cost, and ideas that apply magic (technology).
Step 5 Prototyping design and presentation	Poster design describing the solution and presentation to the audience.

Figure 2. Structuring the innovation action for sustainability used in the multiplier event.

Below are images from the digital platform eDea that show the participants' actions and work during the multiplier event.

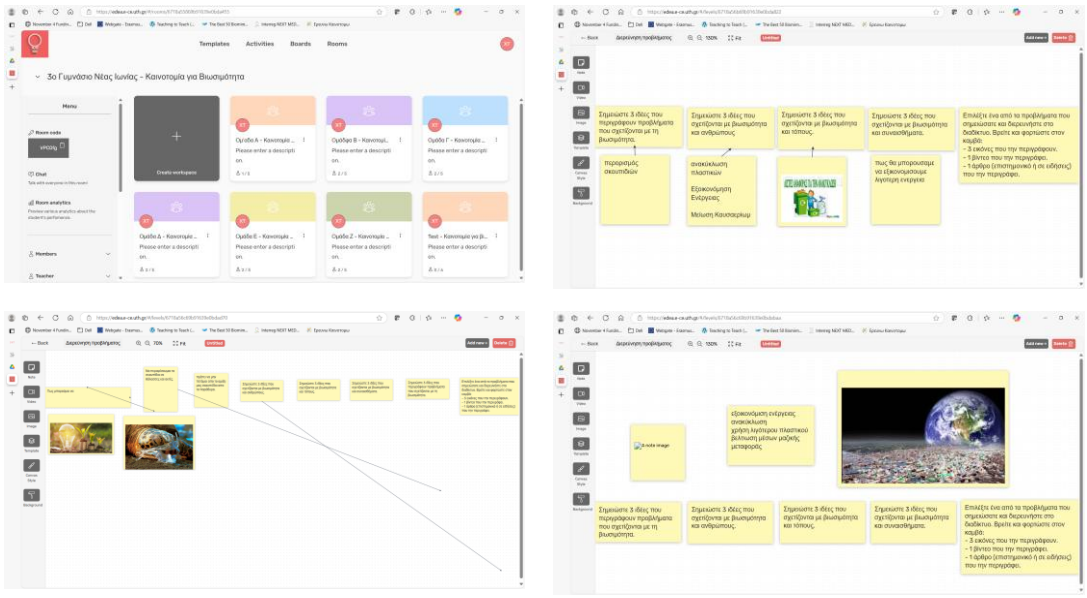

Figure 3. Images from the actions of the participants in the multiplier event through the digital platform eDea.

Examples of tasks of participants in the multiplier event include:

- Energy saving by using public transport.
- Management of plastic pollution.
- Exhaust gas reduction.
- Clean beaches.
- Recycling to reduce waste.

The action lasted from 10.30 to 13.00. Below is the event program:

eDea multiplier event with the 3rd High School of Nea Ionia, Volos **Wednesday 23 October 2024** **Program**	
10.30 – 11.00	Recording
11.00 – 11.15	Presentation of design thinking *Harikleia Tsalapata, University of Thessaly*
11.15 – 12.45	Experiential design thinking workshop for sustainability through the eDea digital platform *Harikleia Tsalapata, Konstantinos Katsimentes, Christina Taka, Konstantina Vlachoutsou, Olivier Heidmann, Dimitris Ziogas, Sotiris*

	Evangelou, Apostolos Fotopoulos, University of Thessaly and Andrianos Pappas, University of the Aegean
12.45 – 13.00	Presentation of participants' solutions and discussion

Figure 4. Multiplier event program.

2. eDea multiplier event with the public Post-graduate Institute of Vocational Training (PIVT) of Volos, 24 October 2024

The eDea research team organised a multiplier event on 24 October 2024 to promote the research project's results. The action took place in the computer lab of the Department of Electrical and Computer Engineering of the University of Thessaly, and all consortium partners participated. A total of 50 students and 5 of their teachers from the Public IAC of Volos participated.

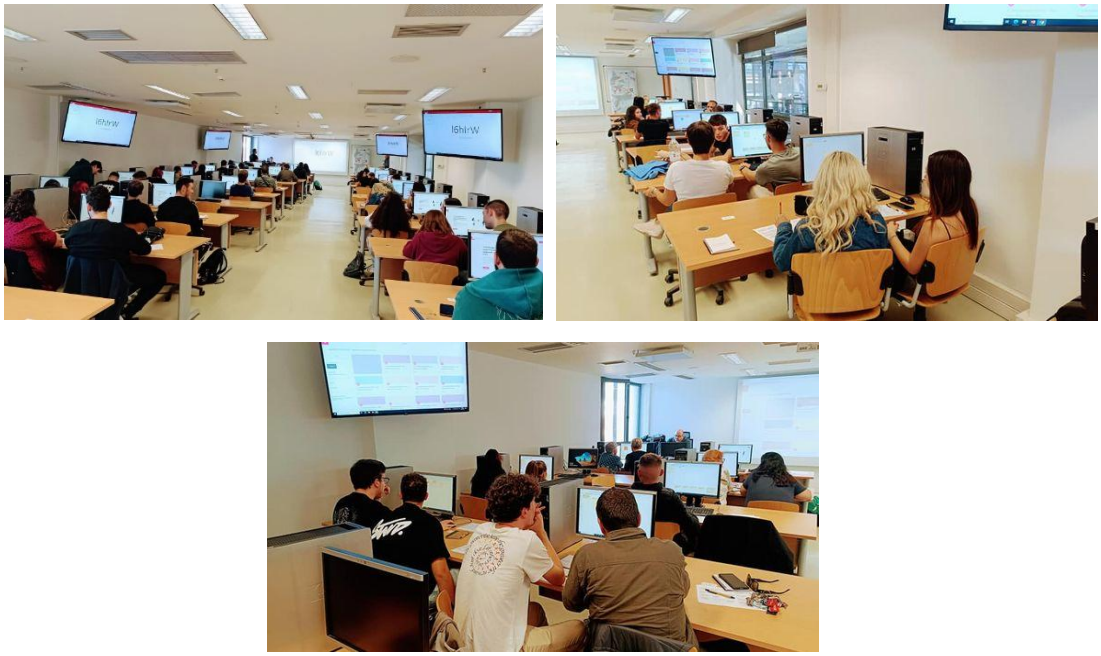

Figure 5. eDea multiplier event with the Public PIVT of Volos, 24 October 2024.

Students had the opportunity to attend an introductory presentation on the ideas of design thinking for the synthesis of solutions to difficult entrepreneurship and social entrepreneurship challenges through investigation, observation, empathy, ideation, and prototype design processes. Then, they participated in an experiential seminar where they designed solutions for modern sustainability challenges, such as recycling, clean energy, green cities, equality, quality education for all, health for all, tackling poverty and hunger, and others.

The participants worked in 6 groups of 4 individuals and used the digital platform eDea, which contributed significantly to the collaboration of members and the joint building of ideas. They collaborated on a learning action developed exclusively for the event within the eDea digital platform, and the results of their efforts have been published in the teams' joint digital workspaces on the platform.

The structure of the activity was the same as that applied to the multiplier event with the 3rd High School of Nea Ionia, Volos (see section *1. eDea multiplier event with the 3rd High School of Nea Ionia, Volos, 23 October 2024*). Below are images from the digital platform eDea that show the participants' actions and work during the multiplier event.

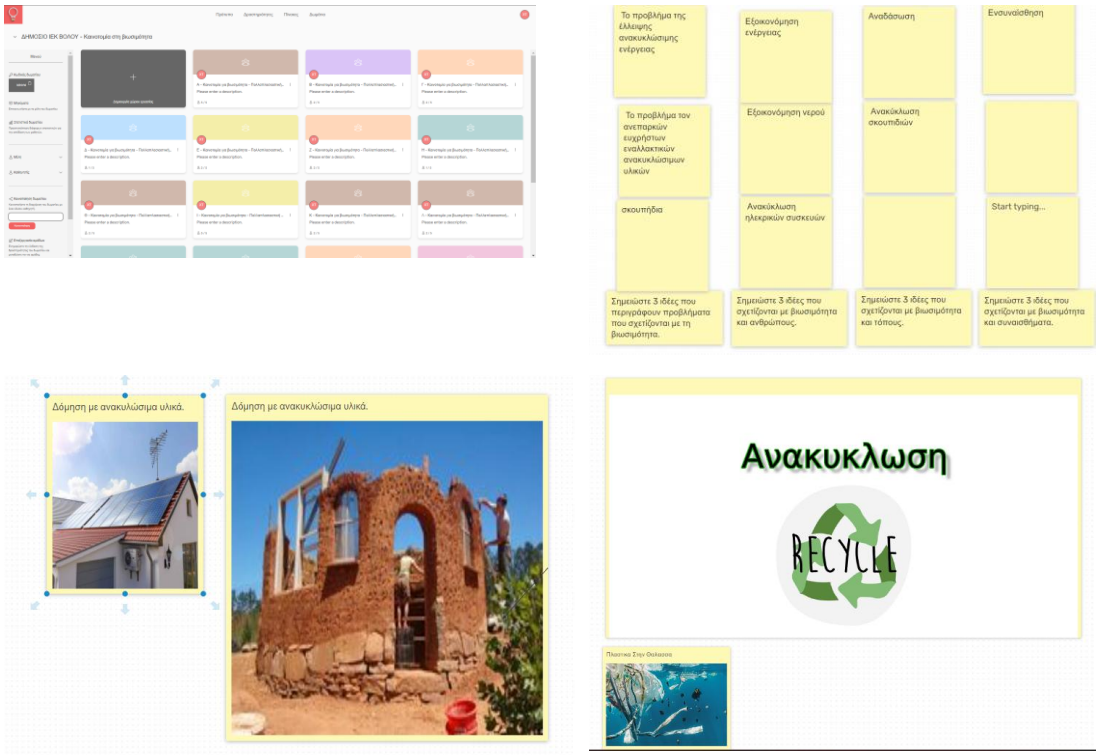

Figure 6. Images from the actions of the participants in the multiplier event through the digital platform eDea.

Examples of tasks of participants in the multiplier event include:

- Zero carbon dioxide emissions.
- Recycling.
- Saving energy and natural resources.
- Dealing with natural disasters resulting from climate change.
- Tackling plastic pollution.
- Tackling marine pollution.
- Protection of biodiversity.
- Environmental protection and reforestation.

The multiplier event lasted from 15.30 to 18.00 while the program followed the structure of the corresponding action that took place with the 3rd High School of Volos on October 23, 2024 (see section *1. eDea multiplier event with the 3rd High School of Nea Ionia, Volos, 23 October 2024*).

3. eDea multiplier event with the 5th Lyceum of Volos, 13 November 2024

The eDea research team organised a multiplier event on November 13, 2024, to promote the research project's results. The action took place in the computer lab of the Department of Electrical and Computer Engineering of the University of Thessaly, with the participation of the 5th Lyceum of Volos. A total of 24 students of the 3rd Lyceum participated in the action, accompanied by their teachers.

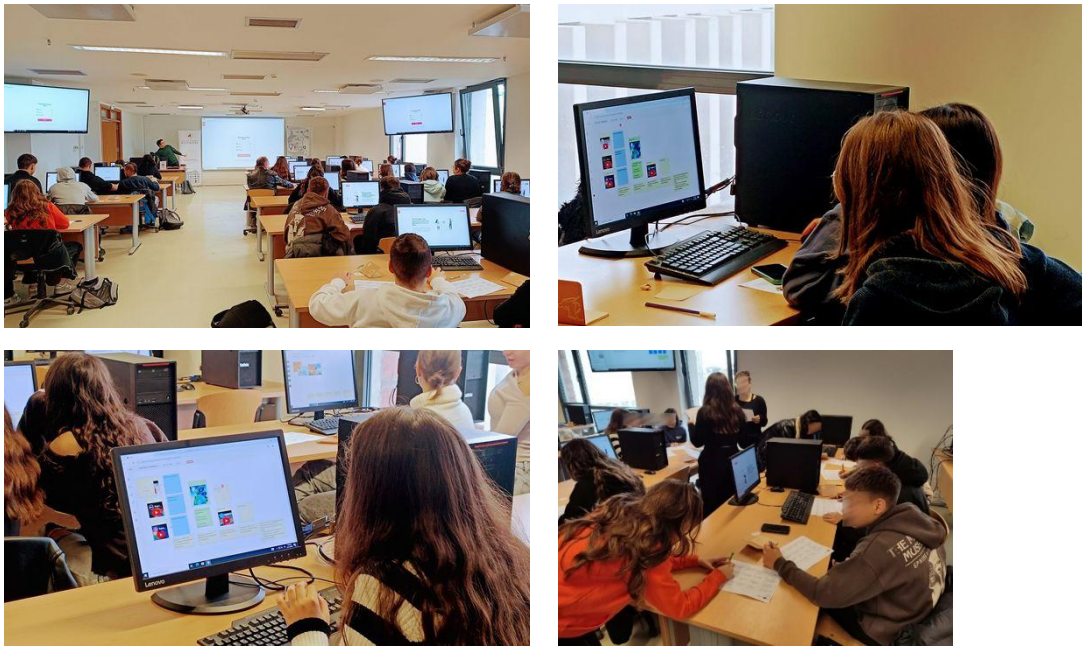

Figure 7. eDea multiplier event with the 5th Lyceum of Volos, November 13, 2024.

The students had the opportunity to attend an introductory presentation on the ideas of design thinking and participate in an experiential seminar where they designed in groups solutions for modern sustainability challenges, such as clean energy, tackling plastic pollution, preserving the natural environment such as forests, and others.

The participants worked in 7 groups of 3 - 4 individuals and used the digital platform eDea, contributing significantly to collaboration and joint idea building. They collaborated on a learning action developed within the eDea digital platform, and the results of the efforts λογοhave been published in the teams' shared digital workspaces on the platform.

The activity's structure was the same as that applied to the multiplier event with the 3rd High School of Nea Ionia, Volos (see section *1. eDea multiplier event with the 3rd High School of Nea Ionia, Volos, 23 October 2024*). Below are images from the digital

platform eDea that show the participants' actions and work during the multiplier event.

Below are images from the digital platform eDea that show the participants' actions and work during the multiplier event.

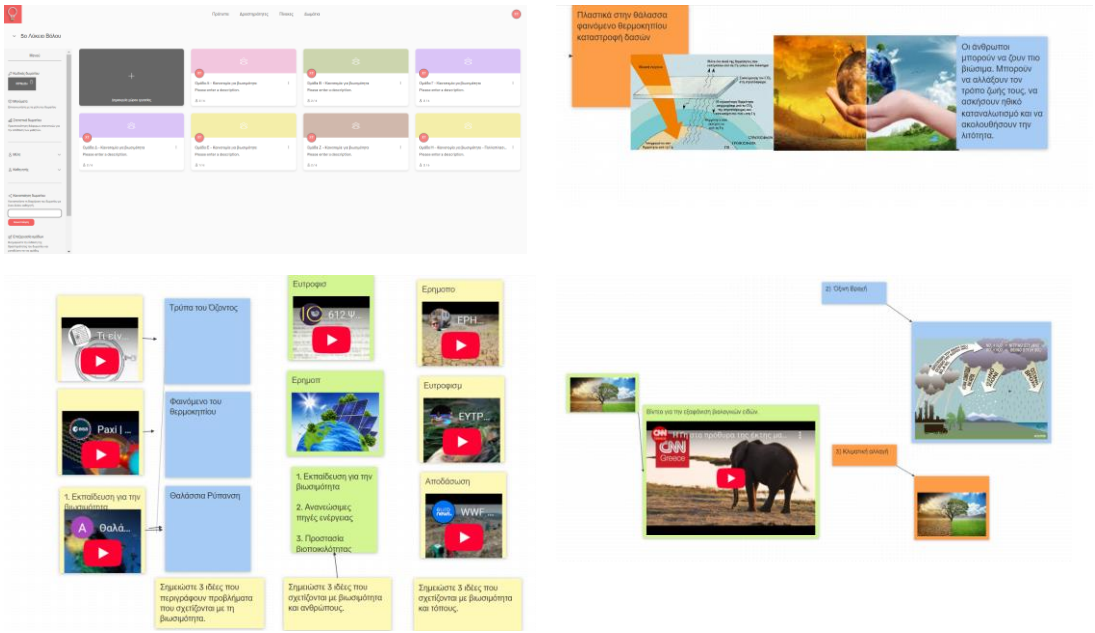

Figure 8. Images from the actions of the participants in the multiplier event through the digital platform eDea.

Examples of tasks of participants in the multiplier event include:

- Tackling plastic pollution in the sea.
- Tackling air pollution, global warming, and global warming.
- Tackling forest destruction.
- Ethical consumption.
- Tackling water pollution.

The multiplier event lasted from 10.30 to 13.00 while the program followed the structure of the corresponding action that took place with the 3rd High School of Volos on October 23, 2024 (see section *1. eDea multiplier event with the 3rd High School of Nea Ionia, Volos, 23 October 2024).*

4. eDea multiplier event with the 2nd Model High School of Volos, 19 November 20244

The eDea research team organised a multiplier event on November 19, 2024, to promote the research project's results and encourage students' creativity in designing innovative solutions to modern sustainability challenges. The action occurred in the computer laboratory of the Department of Electrical and Computer Engineering of the University of Thessaly. Fifty students from the 2nd Model High School of Volos participated, accompanied by their teachers.

Figure 9. Multiplier event eDea with the 2nd Model High School of Volos, November 19, 2024.

The students became familiar with the concepts of green practices, which concern environmentally responsible behaviour, as well as sustainability, i.e. the ability to meet our needs in a way that does not deprive future generations of the ability to meet theirs. Students participated in active learning activities that promoted critical thinking to synthesise solutions to problems of modern society. They collaborated in teams identifying sustainability challenges, such as air pollution, plastic pollution, the promotion of renewable energy, and others. They analysed solutions such as electrification, public transportation, and recycling to protect the environment. They applied design thinking to synthesise solutions to complex challenges of entrepreneurship and social entrepreneurship through discovery, ideation, and prototype design.

Students worked in groups of up to 4 individuals using the eDea digital platform to promote collaboration. They worked on an activity for innovation in sustainability created on the digital platform for the event. The structure of the activity was the same as that applied to the multiplier event with the 3rd High School of Nea Ionia, Volos (see section *1. eDea multiplier event with the 3rd High School of Nea Ionia, Volos, 23*

October 2024). Below are images through the digital platform eDea that show the actions and work of the participants during the multiplier event.

Below are images from the digital platform eDea that show the participants' actions and work during the multiplier event.

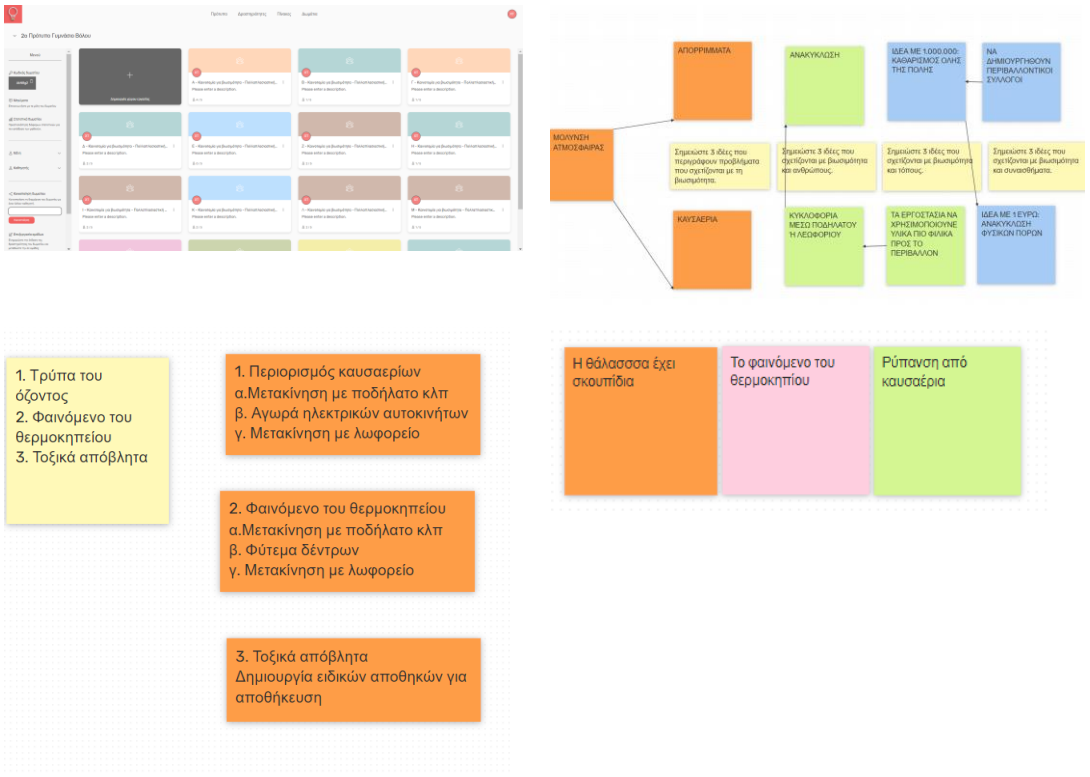

Figure 10. Images from the actions of the participants in the multiplier event through the digital platform eDea.

Examples of tasks of participants in the multiplier event include:

- Tackling waste in cities.
- Tackling car pollution.
- Tackling water pollution.
- Tackling plastic pollution.
- Tackling noise pollution.

The multiplier event lasted from 10.30 to 13.00 while the program followed the structure of the corresponding action that took place with the 3rd High School of Volos on October 23, 2024 (see section *1. eDea multiplier event with the 3rd High School of Nea Ionia, Volos, 23 October 2024).*

5. eDea multiplier event with Iolkos High School, 15 January 2025

The eDea research team organised a multiplier event for high school students to encourage innovation skills for sustainability. The action took place on January 15, 2025, at the computer lab of the Department of Electrical and Computer Engineering of the University of Thessaly. About 30 students from the Gymnasium participated, accompanied by their teachers.

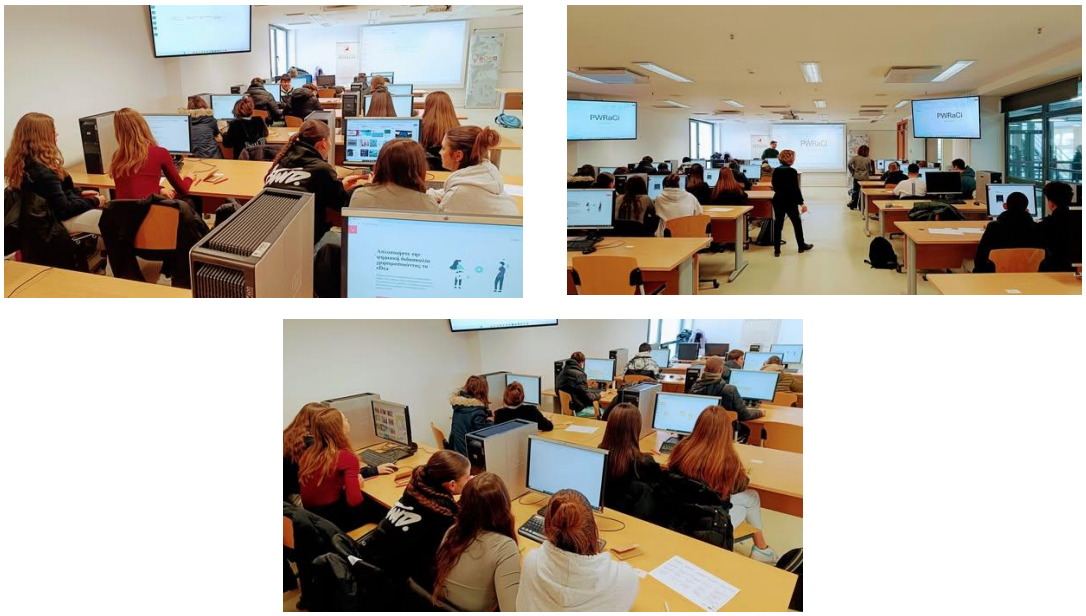

Figure 11. eDea multiplier event with Iolkos High School, 15 January 2025.

Students became familiar with the United Nations sustainability goals. They collaborated in groups of up to 4 individuals to analyse complex sustainability challenges of our time, such as plastic pollution, responsible water management and tackling waste, protecting forests and biodiversity, encouraging recycling, and applying design thinking through investigation, ideation, and prototyping.

Students worked in groups of up to 4 individuals using the eDea digital platform to promote collaboration. They worked on an activity for innovation in sustainability created on the digital platform for the event. The structure of the activity was the same as that applied to the multiplier event with the 3rd High School of Nea Ionia, Volos (see section *1. eDea multiplier event with the 3rd High School of Nea Ionia, Volos, 23 October 2024*).

Below are images from the digital platform eDea that show the participants' actions and work during the multiplier event.

Figure 12. Images from the actions of the participants in the multiplier event through the digital platform eDea.

Examples of tasks of participants in the multiplier event include:

- A sense of responsibility for the protection of the environment.
- Sustainable consumption.
- Development of the green economy.
- Sustainable urban development.
- Tackling climate change and pollution.

The multiplier event lasted from 10.30 to 13.00 while the program followed the structure of the corresponding action that took place with the 3rd High School of Volos on October 23, 2024 (see section *1. eDea multiplier event with the 3rd High School of Nea Ionia, Volos, 23 October 2024*).

6. eDea multiplier event with the 3rd Junior High School of Nea Ionia, 29 January 2025

The eDea research team organised a multiplier event on 29 January 2025 to promote the research project results. The action occurred in the computer laboratory of the Department of Electrical and Computer Engineering of the University of Thessaly. A total of 21 students and their teachers participated from the 3rd High School of Nea Ionia, Volos. It is noted that this was the second action within the framework of the eDea project with the 3rd High School of Nea Ionia, Volos, while the first action took place on October 23, 2024 (see section *1. eDea multiplier event with the 3rd High School of Nea Ionia, Volos, 23 October 2024*). The action took place with a different group of students at the school's request due to the great success of the first event, which created strong interest in the student and academic community in the city of Volos.

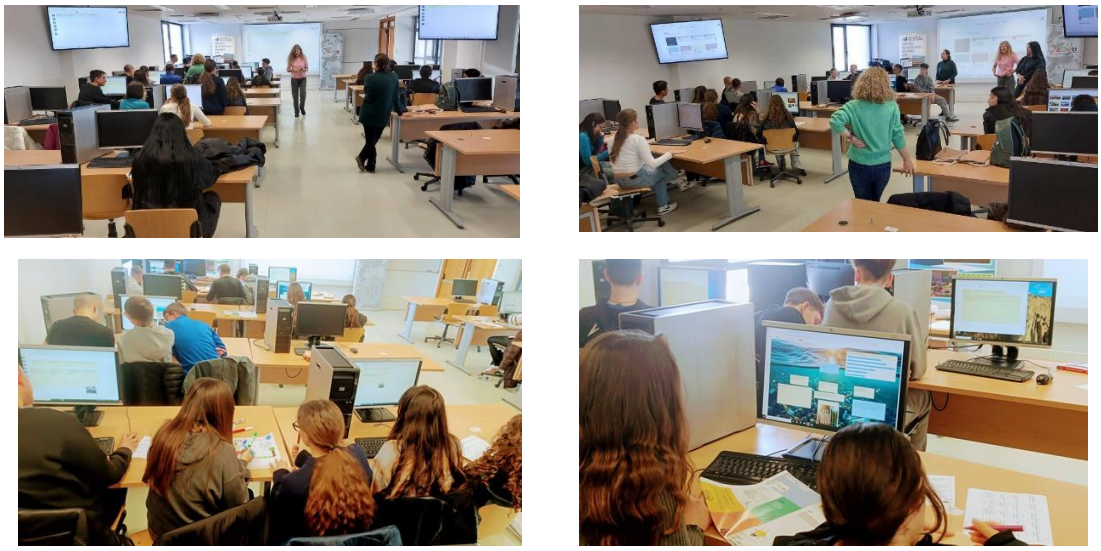

Figure 13

Students participated in experiential workshops on innovation tailored to their interests, knowledge, and skills. They applied design thinking to introduce solutions for the United Nations Sustainability Goals.

Through exploration, ideation, and synthesis, participants presented creative ideas to address broad sustainability challenges, such as managing plastics, using electromobility to reduce carbon emissions, recycling, preserving biodiversity, raising awareness of the difficulties homeless face, and more.

The participants worked in 7 groups of 2-4 individuals and used the digital platform eDea, which contributed significantly to the collaboration of members and the joint

building of ideas. They collaborated on a learning action developed within the eDea digital platform for the event, and the results of the efforts have been published in the teams' shared digital workspaces on the platform. The structure of the action was the same as that applied to the multiplier event with the 3rd High School of Nea Ionia, Volos (see section *1. eDea multiplier event with the 3rd High School of Nea Ionia, Volos, 23 October 2024*).

Below are images from the digital platform eDea that show the participants' actions and work during the multiplier event.

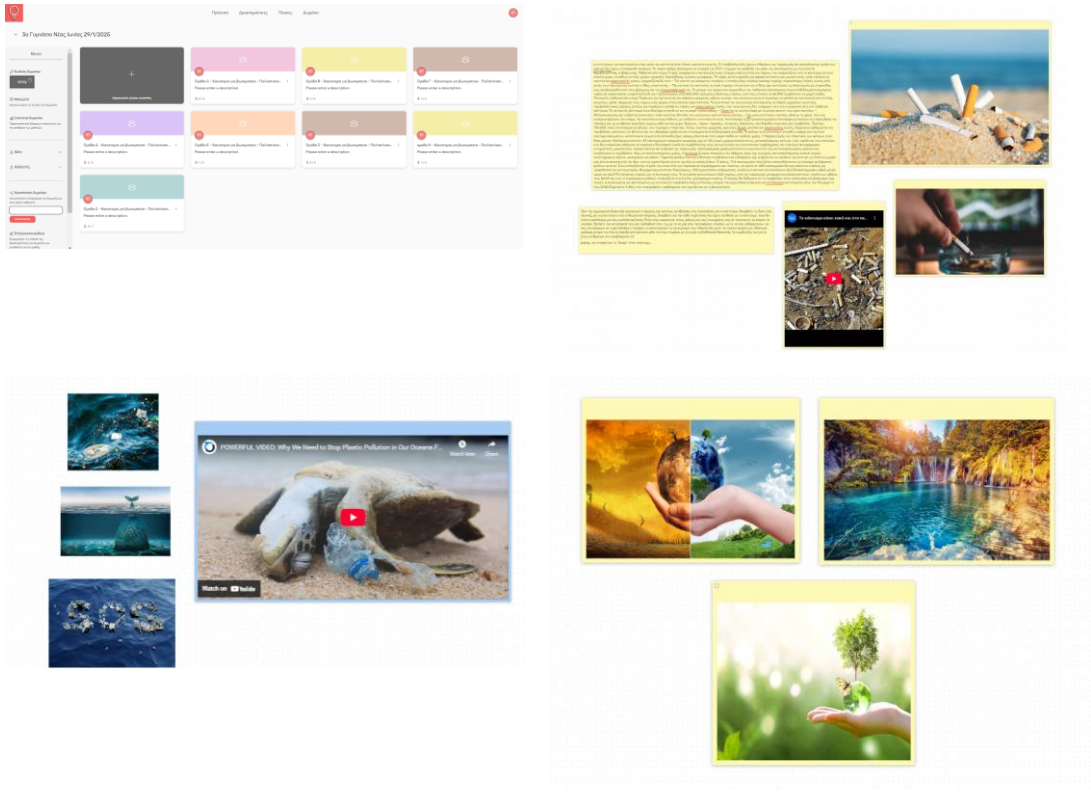

Figure 14. Images from the actions of the participants in the multiplier event through the digital platform eDea.

Examples of tasks of participants in the multiplier event include:

- Tackling plastic pollution.
- Tackling water pollution.
- Renewable energy sources.
- Tackling air pollution.
- Recycling.

The multiplier event lasted from 10.30 to 13.00 while the program followed the structure of the corresponding action that took place with the 3rd High School of Volos

on October 23, 2024 (see section *1. eDea multiplier event with the 3rd High School of Nea Ionia, Volos, 23 October 2024*).

7. eDea multiplier event with PIVT DIMITRA, 12 February 2025

The eDea research team organised an experiential educational action on February 12, 2025, to promote innovative thinking about sustainability. Approximately 20 students of IAC Dimitra, accompanied by the organisation's teachers, participated in the action, which took place in the computer laboratory of the Department of Electrical and Computer Engineering of the University of Thessaly.

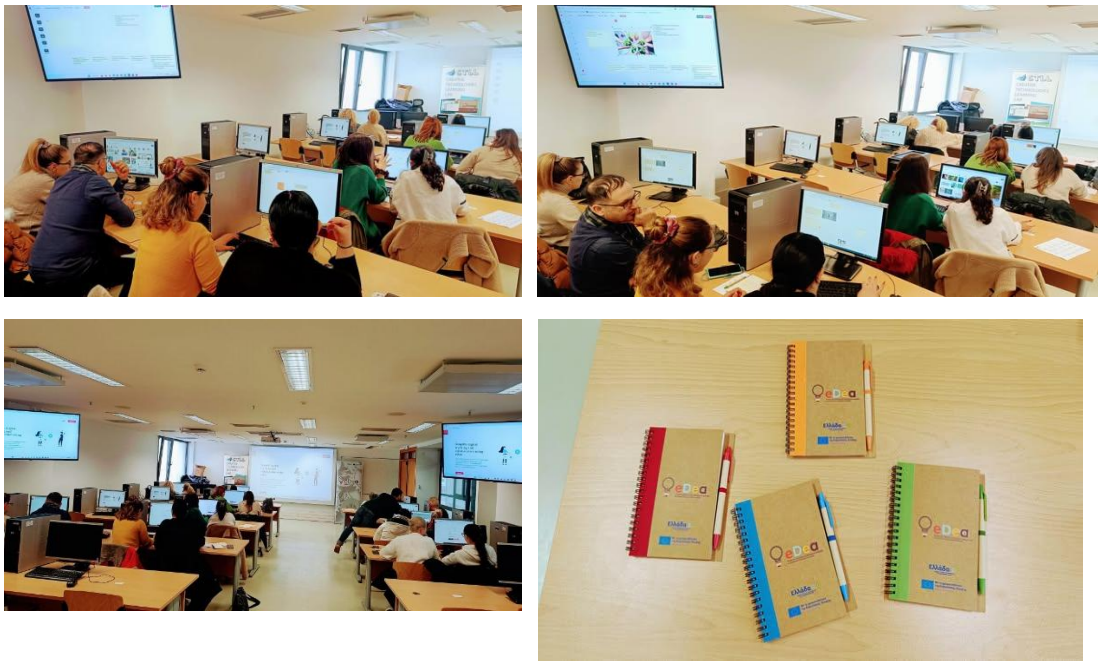

Figure 15. eDea multiplier event with IAC DIMITRA, 12 February 2025.

Students actively participated, collaborating in groups of 4 individuals, in design actions to raise awareness and generate innovative ideas to promote sustainability. They applied design thinking, a deep human-centred methodology that introduces innovative solutions to the complex business and social challenges of the 21st century through empathy, observation, investigation, ideation, evaluation, and prototype design. Students focused on the United Nations sustainability goals by presenting proposals for the circular economy, environmental protection, and active participation of the local community in green practices.

They collaborated on a learning action developed within the eDea digital platform for the event, and the results of the efforts have been published in the teams' shared digital workspaces on the platform. The structure of the action was the same as that applied to the multiplier event with the 3rd High School of Nea Ionia, Volos (see section *1. eDea multiplier event with the 3rd High School of Nea Ionia, Volos, 23 October 2024*).

Below are images from the digital platform eDea that show the participants' actions and work during the multiplier event.

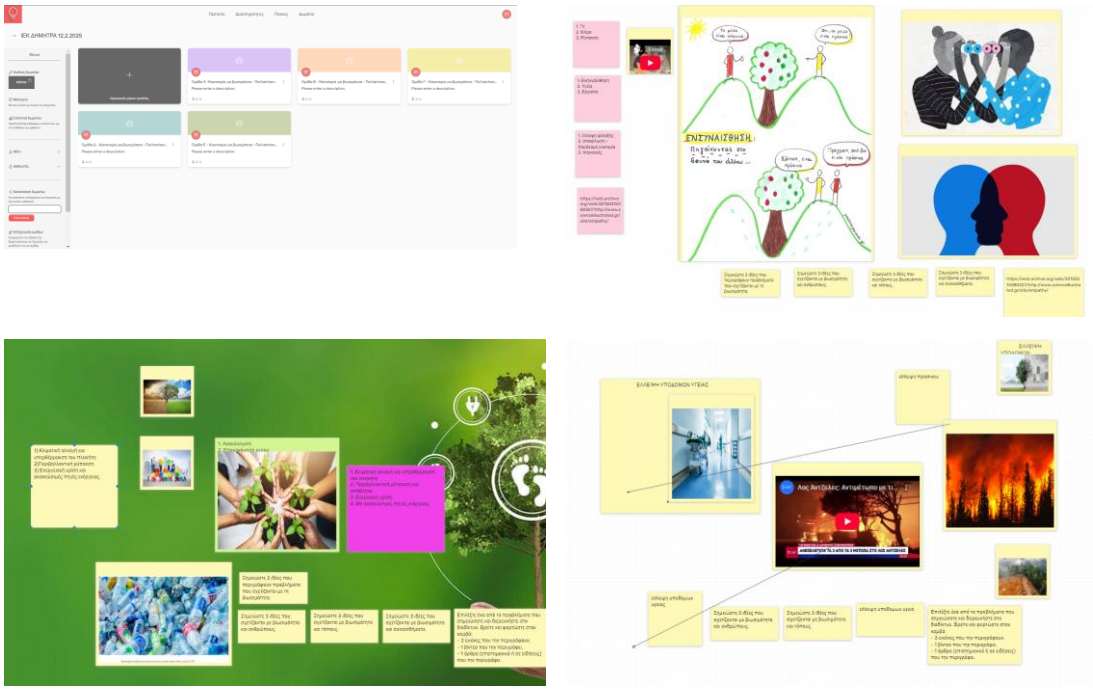

Figure 16. Images from the actions of the participants in the multiplier event through the digital platform eDea.

Examples of tasks of participants in the multiplier event include:

- Tackling climate change and global warming.
- Tackling the energy crisis with renewable energy sources.
- Tackling environmental pollution.
- Recycling.
- Water saving.

The multiplier event lasted from 10.30 to 13.00 while the program followed the structure of the corresponding action that took place with the 3rd High School of Volos on October 23, 2024 (see section *1. eDea multiplier event with the 3rd High School of Nea Ionia, Volos, 23 October 2024*).

Conclusions

This report describes the multiplier events promoting the results of the eDea research project. The actions constitute the **P11 Multiplier events**. The project's research team organised the actions with great success over a period of 6 months. The actions were very successful, and participants benefited significantly from working together in teams to promote innovation skills.

References

1. The eDea multiplier events on the research project website, available at http://edea-project.gr/index.php/ekdiloseis/.
2. Dissemination actions of eDea multiplier events through press releases and publications on the internet and social media, available at http://edea-project.gr/index.php/in-the-news/.