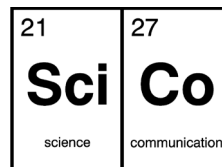


OSHUB GREECE



OPEN SCIENCE HUB
SCICO
MAKER LAB
GREECE



SciCo (Science Communication)

SciCo (Science Communication) is a non-profit organisation, based in Athens, that communicates scientific issues to the general public through innovative, interactive and entertaining activities, from talks and workshops, corporate training, events and festivals, to STEM education and citizen science. SciCo has extensive experience in STEM education, having been awarded by the Mariano Gago Ecsite Awards in 2019, under the category Sustainable Success. Over the past years, SciCo has reached more than 400.000 people all over Greece. It has also reached audiences outside Greece by expanding some of its own projects internationally and by participating in EU Programs and Networks.

OSHub Team

Lilly Bakogianni

STEM Educator

Pandora Sifnioti

STEM Director

Theo Anagnostopoulos

*Founder and General
Manager at SCICO*

Value Proposition

OSHub-GR supports and works together with schools and the surrounding community to establish school-led community hubs that enhance STEM education and hands-on learning in a way that is integrated in the local reality.

Target public

The educational community as a whole (school heads, teachers, students, parents, local community), with more continuous actions targeted at Information and Technology teachers and students (12-18).

Management Board

01 School

- **Gymnasio Livadochoriou (Livadochori High School)**

Charitini Fotopoulou, Principal

Type of relationship/interaction: Overview of projects – main liaison with other stakeholders

Ms. Fotopoulou had a key role in the project, as she served as the main liaison with all the stakeholders, the other schools on the island, the university, the municipality, the students at her school, the teachers, the parents and local organisations.

Contact frequency: The interaction between Ms Fotopoulou and SciCo was regular (approximately on a monthly basis) whereas her interaction with students and teachers was daily and with stakeholders was often, but on an ad-hoc basis.

01 Academia

- **Department of Food Science and Nutrition, Aegean University**

Konstantinos Gkantzionis, Head of University Department

Type of relationship/interaction: Coordinator of University participation and input to projects. Dr Gkantzionis acted more as an advisor to the projects and served as the liaison between the local OSHub and the University.

Contact frequency: Connections with Dr Gkantzionis were made on a trimester basis.

01 Government

- **Municipality of Limnos**

George Dimakis, Municipality – Deputy Mayor

Type of relationship/interaction: Spokesman from the Municipality of Limnos – connection with local authorities and broader government

The liaison with the local municipality, despite efforts from multiple players, remained at a very superficial level (eg. granting of necessary permits to hold outdoor activities, use of their website to promote projects, etc). Due to limited time, the municipality never had an active role in the project.

Contact frequency: Bimonthly initially and then yearly, due to lack of response.

Approach

OSHUB-GR I SciCo Maker Lab was established in the island of Limnos. Limnos is a Greek island, with approximately 17,000 inhabitants, located in the Northeastern side of the Aegean sea, very close to Turkey. Due to its geographical location and proximity to Turkey, it is considered as a remote island and has a severe army presence (multiple army camps, air force hubs and soldiers on the island). Schools, students and communities in such geographically isolated locations, usually have fewer opportunities to engage with innovative participatory programmes and lack staff and resources in education. On the other hand, the island of Limnos has a notable environmental and cultural wealth, as well as rich biodiversity. In addition, it experiences an increasing influx of visitors and tourists over the past years, leading to continuous development. It is also home to the Department of Food Science and Nutrition of the Aegean University.

More specifically, OSHUB-GR established a school-based OSHUB model, which has a physical space that works as a maker lab, where the educational community develops science and technology projects to tackle local relevant challenges and/or opportunities. It is led, namely, by teachers and students, which then, depending on the specificity of the projects, form networks and liaisons with the local community and local stakeholders (university, municipality, parents, local organisations, other schools) who can serve as collaborators, consultants or end users.

Some examples of projects that emerged from this approach include: students developed a smart stick with smart goggles for visually impaired or a smart feeder for the stray animals on the island, by using coding and programming, tinkering with sensors and microcontrollers and recyclable materials; or developed applications for locals and visitors to use in case of emergency, or to showcase the island's biodiversity and the nutritional elements of local products, based on the programming environment MIT App Inventor.

The role of OSHUB-GR in this process is multi-fold:

- to liaison with the Municipality and other relevant partners so that this strategy can become a territory-wide approach (vs. a focal initiative at a school);
- to provide training and continuous support to educators, promoting confidence and autonomy to lead science and technology based projects that tackle local relevant challenges;
- to support schools establishing their own makerspaces;
- to foster the development of local networks amongst schools and community stakeholders to exchange knowledge /experience;

- to connect local schools and communities with global initiatives and networks, allowing to disseminate the work being done locally and, at the same time, creating opportunities for local to global collaborations.

Model

In order to establish a meaningful and sustainable school-based OSHub, where school projects meet real-life challenges and learning takes place within the community ecosystem, the educational community is guided through a series of steps:

- **Community-based decision making sessions:**

The objective of these sessions is to bring together the local municipality and the school heads of the existing schools to discuss the project, its objectives and respective impact, and to jointly define the general strategy of OSHub-GR. On average, these meetings happen once a year, a couple of months before the start of the new school year (to define future strategies but also to evaluate previous actions).

- **Co-creation workshops:**

By guiding school heads, teachers and key stakeholders through a co-creation process, these workshops are aimed at setting a common vision and goals for the coming school year. On average, these workshops happen once a year, before the start of the new school year.

- **Train-the-trainer approach:**

The scope of this approach is to increase teacher's knowledge and autonomy with technological tools, such as 3D Design & Printing, Arduino and AppInventor, so that teachers can use them in a confident and independent way together with their students. Once learners get to grips with the basics of these tools, they are guided through a co-creation process to identify local issues or opportunities that can be tackled through science and technology projects. This is an ongoing process, grounded on inquiry-based and hands-on learning. The ultimate goal of this approach is to develop inclusive, hands-on educational methods and a curriculum based on real life-issues, which will engage and motivate students, while providing them with knowledge and important skills, like problem-solving and collaboration.

- **Student training workshop:**

Throughout the school year, the OSHub-GR team also keeps regular contact with students to ensure that the projects are on track and to gather feedback and ideas for improvement. On an ad-hoc basis it also provides specific training on particular themes of interest or specific tools.

- **Science communication workshops:**

Particularly when there are academic partners involved, the organisation of workshops about science communication methodologies and tools is very relevant to demonstrate the importance of reaching out to the general public and to the local community, and to share the research processes and outcomes happening at universities and research institutes. In the specific case of OSHub-GR, these workshops triggered the interest of the Aegean University, and its students, to collaborate in the organisation of the first Aegean Festival in the island of Limnos.

- **Establishing a makerspace at the school:**

OSHub-GR created a simple guide to support schools setting-up their own makerspaces, which includes information about material, equipment, tools and safety. This document is updated on a continuous basis based on the experience of the participating schools.

Physical Space

The OSHub physical space is set up in a school room at the secondary School of Livadochori in Limnos. This physical space was piloted for the first year in Livadochori, and was reapplied to the Vocational School of Myrina, the following year, in order to on-board more teachers and students to the project



Figure 1 – 2: Left – Photo of OSHub-GR physical space, Livadochori; Right – Photo of OSHub-GR physical space, Myrina.

Partner Schools

NAME	LOCATION	SCHOOL YEARS	# STUDENTS	# TEACHERS	# SCHOOL HEADS	# PARENTS
Gymnasio Livadochoriou	Livadochori, Limnos	12 – 15	50 (mix of students from different classes, approx 50%)	2	1	10
EPAL Myrinas	Myrina, Limnos	15 – 18	20 (2 out of 3 IT classes)	4	1	10

Implementation

Through STEM education and hands-on learning, a network of teachers, students, the local municipality, the university and other key stakeholders come together to identify and work on solving issues on the island of Lemnos in Greece with the help of science and technology.

During the first school year, students used Arduinos and 3D printing to create 3 projects: a smart stick and smart glasses for the visually impaired and a smart feeder for the stray animals on the island. This included the use of recyclable materials, coding and programming, tinkering with sensors and microcontrollers and a lot of fun STEM learning which enhanced both knowledge and skills in the educational community.

During the second school academic year, the network has grown, adding new schools and teachers to the initiative. This year's projects include an application designed on App Inventor which can be used by locals and visitors of the island in case of an emergency as well as a web page and application which showcases the island's biodiversity and the nutritional elements of local products, in collaboration with the Department of Food Science and Nutrition of the Aegean University.

Overall, OSHub-GR impacted:

- Directly:
 - 70 students corresponding to 1 965 interactions (engagement rate: 28)
 - 6 teachers corresponding to 135 interactions (engagement rate: 22.5)
 - 140 community members corresponding to 140 interactions (engagement rate: 1)
- Indirectly:
 - 840 students
 - 550 teachers
 - 220 community members



Figure 3 – 4: Photos from Steam for the Environment / Steam for Inclusivity sessions, Year 1.

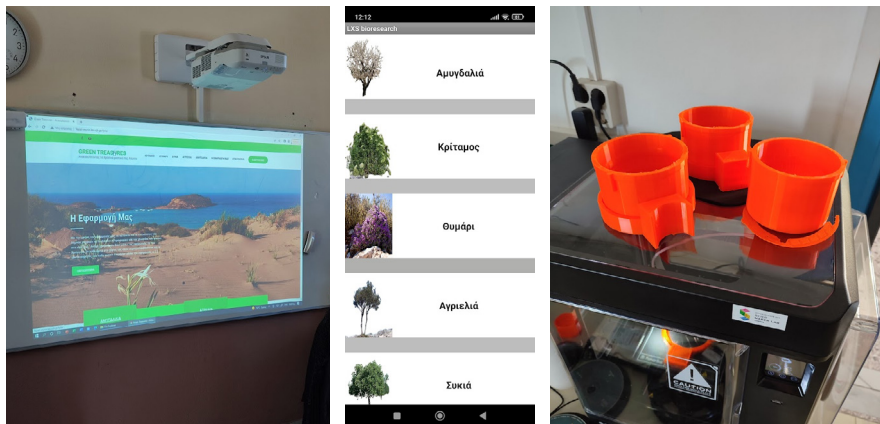


Figure 5 – 6: Photos from Steam for the Environment, Year 2.

Partnerships

01 Academia

- **Aegean University**

Type of relationship/interaction: Introduction of University to students, hands on methods, participation methods, synergies. The interaction with the University was not extremely regular, but it was strategic and of great importance for all parties. On the one hand, the University was introduced to the schools, the students and the local community, whereas on the other, it had a scientific/consulting role with regards to the projects and the methodology followed.

Contact frequency: The contact frequency with the university was approximately every 3 months in person or via a web meeting, however the connection was sustained regularly through phone calls, emails and ad-hoc contacting.

01 Government

- **Dimos Limnou**

Type of relationship/interaction: Initial on-boarding of project to create trust within the local community and contact local schools/principals. The liaison with the local municipality, despite efforts from multiple players, remained at a very superficial level (eg. granting of necessary permits to hold outdoor activities, use of their website to promote projects, etc). Due to limited time, the municipality never had an active role in the project.

Contact frequency: Bimonthly initially and then yearly, due to lack of response.

01 Civil Society

- **Medina Org**

Type of relationship/interaction: The Mediterranean Institute for Nature and Anthropos (MedINA) was contacted by the 2 schools, as a scientific partner, in collaboration with the University of Aegean, to validate the information the students gathered on the specific species they refer to in their website and application.

Contact frequency: The contact was ongoing throughout the design of the webpage and the application.

Activities

01 Teacher Training

SHORT DESCRIPTION

The scope of this training was to acquaint teachers with technological tools they could use in science real-life projects, such as 3D Design & Printing, Arduino and AppInventor. The teachers involved in the projects already knew the basics in some tools, but through the ongoing training and support they were acquainted with specific platforms (eg. Tinkercad for both Arduino and 3D printing), sensors, elements of app development (e.g. adding an email or GPS) and went through any troubleshooting.

The knowledge and skills acquired through this was then implemented in the classroom with the students throughout the school year. One of the schools held the lessons out of school hours, despite the increased difficulty due to students' transportation, whereas the other could incorporate it during the morning curriculum, as the set-up of a vocational school allows this.

Once educators and, then, students got to grips with the basics of both Arduino and app Inventor, they identified the local issue or opportunity they wanted to tackle with the help of science and technology and further discovered/deepened in to their knowledge journey, along the way, discovering the necessary sensors, programming and/or elements needed in the app in order to address their needs. This was an ongoing process for all individuals involved and had an element of inquiry-based, hands-on learning, which shifts away from the traditional Greek teacher-centred educational system.

In order to facilitate the usage of Arduino and App Inventor by teachers and students, the respective manuals have been translated to Greek (the Tinkercad manual is also being translated):

- <https://www.arduino.cc/education>
- <https://appinventor.mit.edu/explore/teach>
- <https://www.tinkercad.com/>
- <https://www.tinkercad.com/circuits>

The participation of the schools in the OSHub project has been communicated in the local media¹.

DURATION

Ongoing support throughout the project.

TIMELINE

July 2020 – September 2022

PEOPLE ENGAGED

- Directly engaged:
 - 4 teachers corresponding to 72 interactions (interaction rate: 18)
- Indirectly engaged:
 - 70 students
 - 2 school heads

01 University Student Training

SHORT DESCRIPTION

The scope of this training was to acquaint the university students at the Aegean University with the basic methodology of science communication and the importance to reach out to the general public and the local community, in order to share their research.

Students were extremely engaged throughout the webinar and expressed their interest to help organise a Science Festival on the island, which actually materialised a few months later. At the same time, the students were acquainted with the OSHub project and the local Hub.

A poster was created to advertise the event (see below, Figure 9).

DURATION

3 hours online training, during COVID

TIMELINE

20th Feb 2021

PEOPLE ENGAGED

- Directly engaged:
 - 55 university students corresponding to 55 interactions (interaction rate: 1)
 - 1 university professor corresponding to 1 interaction (interaction rate: 1)

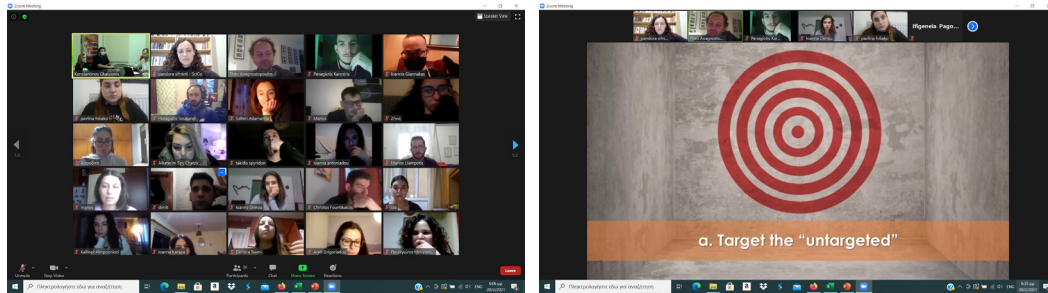


Figure 7 – 8: Screenshots from the University Student Training Day.



**SCICO
MAKER LAB
GREECE**

Διαδικτυακό σεμινάριο

21 27
Sci Co

Science Communication | Making Science Simple
Η επικοινωνία επιστημονικών θεμάτων στο ευρύ κοινό

**Προσκεκλημένοι
Ομιλητές**





**Θεόδωρος
Αναγνωστόπουλος**
Γενικός Διευθυντής και
Συνιδρυτής της SciCo,
Βιολόγος



Πανδώρα Σιφνιώτη
STEM Director, SciCo,
Χημικός Μηχανικός

Συνδιοργάνωση:
 - Κ. Γκατζώνης, Πρόεδρος Τμήματος Επιστήμης Τροφίμων & Διατροφής, Παν/μιο Αγιαίου
 - Φαιητικός Σύλλογος «Νέα Πνοή»



- 20 Φεβρουαρίου 2021, 18.00-19.30
- Διαδικτυακή συνάντηση
- Ανοιχτό για φοιτητές του ΤΕΤΔ
- Δεν χρειάζονται προηγούμενες γνώσεις

Σύνοψη Εργαστηρίου

- Τι είναι η επικοινωνία της επιστήμης;
- Ποια η σημασία της και σε τι πλαίσια μπορεί να γίνει;
- Πώς διεξάγονται αποτελεσματικά και ποιες οι δυσκολίες ενός τέτοιου επιχειρήματος;
- Υπάρχει κοινωνικός ρόλος της επιστήμης;
- Τι ρόλο παίζουν τα φεστίβαλ επιστήμης και πώς μπορείς να κάνεις "target the untargeted";
- Τι είναι η STEM Εκπαίδευση και πώς συνδέεται με το νησί της Αλμύρας;



Μία από ανθρώπινες εμπειρίες, από παραδείγματα, παρουσίαση project και **ελεύθερα** συζήτηση, η SciCo θα απαντήσει τα παραπάνω ερωτήματα και θα θέσει νέα.

Figure 9: Poster for the Science Festival co-organised by university students.

01 Co-Creation Session with teachers and stakeholders

SHORT DESCRIPTION

The scope of this training was to acquaint teachers and key stakeholders with the method of co-creation, whilst setting the goals for the academic year 2021-2022.

In order to guide the co-creation process, the Open Schooling Project Canvas depicted in Figure 11 and available [here](#) (originally developed by OSHub-PT) has been used.

DURATION

2 hours

TIMELINE

25 November 2021

PEOPLE ENGAGED

- Directly engaged:
 - 1 student corresponding to 1 interaction (interaction rate: 1)
 - 2 teachers corresponding to 2 interactions (interaction rate: 1)
 - 2 school heads corresponding to 2 interactions (interaction rate: 1)
 - 1 university student corresponding to 1 interaction (interaction rate: 1)
 - 1 university professor corresponding to 1 interaction (interaction rate: 1)
- Indirectly engaged:
 - 70 students



Figure 10: Co-creation training session.

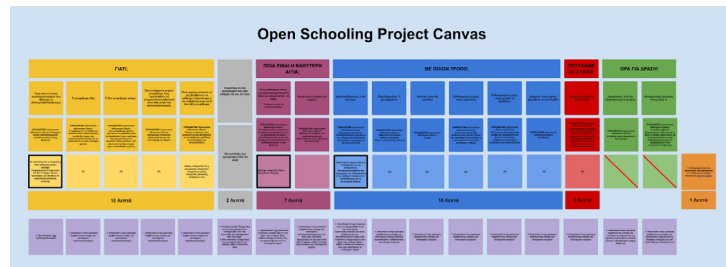


Figure 11: Open Schooling Project Canvas.

05 Facilitated Sessions (student training)

SHORT DESCRIPTION

The general approach followed throughout the project was the train-the-trainer approach. However, at the beginning of each year, the local Hub was involved in a broader welcoming/training, with the participation of SciCo to set the goals and the framework and on board students on basic tools.

DURATION

2 hours online plus face-to-face meeting in November and May

TIMELINE

December 2020 – September 2022

PEOPLE ENGAGED

- Directly engaged:
 - 70 student corresponding to 210 interactions (interaction rate: 3)
- Indirectly engaged:
 - 20 parents/guardians

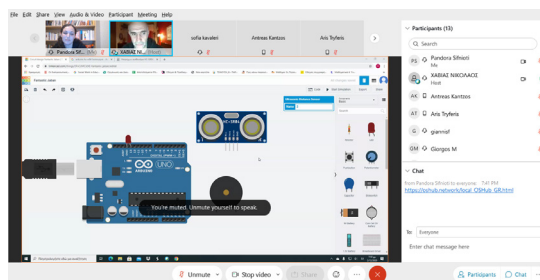


Figure 12: Screenshot from online student training session.

70 Autonomous Sessions by teachers

SHORT DESCRIPTION

Following the train-the-trainer sessions and the ongoing support, teachers met with their students on a weekly basis in order to acquaint them with the tools (eg. Arduino, 3D printing, App Inventor, wordpress, etc) and work on their projects. Each academic year involved a different subset of students and focused on different tools and projects. These sessions are continuing to take place, even after the end of the project.

DURATION

1-3 school hours on a weekly basis

TIMELINE

December 2020 to date (still taking place)

PEOPLE ENGAGED

- Directly engaged:
 - 70 students corresponding to 1680 interactions (interaction rate: 19)
 - 4 teachers

02 Showcase (Student contest)

SHORT DESCRIPTION

The school of Livadochori participated in a national competition called "Open Technologies in Education" with their OSHub project both years. The first year they won 3rd place in their level (lower secondary schools) with the smart pet feeder they created from waste and programmed with Arduino. The second year they were in the top 11 schools of Greece with their LXS app on biodiversity. Results were shared with the parents and the local community through the local news. This was a golden opportunity not only to showcase the local OSHub, the network and the projects implemented until that date, but it also strengthened the reach and the connections within the island with Schools and universities.

This participation has been communicated in the website of Open Educational Technologies², the promoter of the contest, as well as in the local media^{3,4}.

2 <https://openedtech.ellak.gr/2021/11/10/apotelesmata-axiologisis-ergon-tou-3ou-panelliniou-diagonismou-anichton-technologion/>

3 <https://www.limnosfm100.gr/limnos/item/56744-gymnasio-livadoxoriou-i-eksypni-taistra-adespoton-zoon-efere-ti-vravefsi.html>

4 <https://www.limnosfm100.gr/limnos/item/60974-to-gymnasio-livadoxoriou-gia-deyteri-sxoliki-xronia-stis-protis-the-seis-tou-panelliniou-diagonismoy-anoixton-technologion.html>

DURATION

The contest happened in 2021 and 2022

TIMELINE

School years 2020-2021 and 2021-2022

PEOPLE ENGAGED

- Directly engaged:
 - 25 students corresponding to 50 interactions (interaction rate: 2)
 - 2 teachers corresponding to 2 interactions (interaction rate: 1)
 - 1 school head corresponding to 1 interactions (interaction rate: 1)
- Indirectly engaged:
 - 500 students
 - 100 university students

01 Conference participation with teachers

SHORT DESCRIPTION

SciCo, together with the teachers from Livadochori, presented the Limnos OSHub as a case study for open schooling and STEM education during the STEAMonEdu national conference⁵.

Through the presentation of the project, more schools and Municipalities expressed interest in the creation and programming of the automatic pet feeders as a way of taking care of stray animals.

DURATION

2 days

TIMELINE

7 – 9 May 2021

PEOPLE ENGAGED

- Directly engaged:
 - 55 teachers corresponding to 55 interactions (interaction rate: 1)
 - 5 school heads corresponding to 5 interactions (interaction rate: 1)
- Indirectly engaged:
 - 500 teachers

01 Science Festival participation

SHORT DESCRIPTION

Due to the network on the island and the interest expressed by the University and its students, SciCo ran the first Aegean Festival⁶ on the island of Limnos. The festival was tagged on the European Researcher's night, in which OSHub also participated. This was a golden opportunity not only to showcase the local OSHub, the network and the projects implemented until that date, but it also strengthened the reach and the connections within the island with Schools and universities. The participation of the students in the Festival was communicated in the local media⁷.

DURATION

3 days

TIMELINE

24 – 26 September 2021

PEOPLE ENGAGED

- Directly engaged:
 - 12 students corresponding to 12 interactions (interaction rate: 1)
 - 2 teachers corresponding to 2 interactions (interaction rate: 1)
 - 1 school head corresponding to 1 interaction (interaction rate: 1)
 - 60 university students corresponding to 60 interactions (interaction rate: 1)
- Indirectly engaged:
 - 200 students
 - 50 teachers
 - 100 university students

⁶ <https://aegeansciencefestival.com/en/>

⁷ <https://www.limnosfm100.gr/limnos/item/55815-ena-gemato-savvatokyriako-sti-limno-kai-sti-xio-gia-to-gymnasio-livadoxoriou.html>



Figure 13 – 14: Photos from the SCICO Aegean Festival.

01 European Researcher's Night participation (midnight)

SHORT DESCRIPTION

The European Researcher's Night (Midnight) took place for the first time on the island of Limnos in 2021. During the kick-off meeting, 10 Mediterranean partners from across Europe visited the school of Livadochori, where they had the chance to learn about Open Schooling and more specifically about the local OSHub.

This was a golden opportunity to showcase the local OSHub and the notion of Open schooling to the partners of the European project Midnight.

This participation was communicated in the local media⁸ and on the website of the Midnight project⁹.

DURATION

2 hours

TIMELINE

5 June 2021

PEOPLE ENGAGED

- Directly engaged:
 - 12 students corresponding to 12 interactions (interaction rate: 1)

⁸ <https://www.limnosfm100.gr/limnos/item/54158-mednight-2021-ola-osa-eginan-sto-nisi-tis-limnou-photos.html>

⁹ <https://mednight.eu/blog/2021/06/16/the-mednight-project-is-launched-in-limnos-greece-with-the-presentation-of-this-summer-science-activities-in-different-cities-of-the-mediterranean/>

- 2 teachers corresponding to 2 interactions (interaction rate: 1)
- 1 school head corresponding to 1 interaction (interaction rate: 1)
- 2 parents/guardians corresponding to 2 interactions (interaction rate: 1)
- 2 researchers corresponding to 2 interactions (interaction rate: 1)
- 15 professionals from NGOs corresponding to 15 interactions (interaction rate: 1)
- 3 university students corresponding to 3 interactions (interaction rate: 1)



Figure 15: Students and teachers involved in European Researchers Night.

Resources

- **SciCo Maker Lab – Equipments, tools, materials and safety**

A set of guidelines that include basic materials, tools and equipment, as well as safety recommendations, to establish a SciCo Maker Lab. The first one was created in the secondary school of Livadochori Limnos and then reapplied to the Vocational School of Myrina.

- These guidelines can be found in the *OSHub website*.

- **Workshop Raspberry Pi Gaming Console**

Creating a gaming console with retro games by using open source technologies

- The guidelines for this activity can be found in the *OSHub website*.

Dissemination and Communication Activities

ACTIVITY TYPE	# ACTIVITIES	INFORMATION ABOUT ACTIVITIES
Organisation of a Workshop	10	<p>These workshops include students and teacher workshops, University student workshops and workshops for the public in Arduino and Robotics, during the open events.</p> <p>Detailed information above</p>
Press release / Article in media outlets	14	<p>Articles in local media^{10,11,12,13,14,15,16,17,18,19,20,21,22,23}</p>
Exhibition	1	<p>Exhibition of projects at the Aegean Science Festival</p> <p>Students showcased their work and their OSHub projects as part of the Aegean Science Festival</p> <p>Detailed information above</p>

10	https://www.limnosfm100.gr/limnos/item/50626-scico-maker-lab-sto-gymnasio-livadoxoriou-tis-limnou.html
11	https://myblogs.gr/article/scico-maker-lab-sto-gymnasio-livadohorioy-tis-limnoy
12	https://limnosnea.gr/anakoinwseis/15183/scico-maker-lab-sto-gymnasio-livadochoriou/
13	https://www.limnosreport.gr/limnos/169641/quot-scico-maker-lab-quot-sto-gymnasio-livadochorioy-tis-limnoy/
14	https://news-24.gr/scico-maker-lab-%CF%83%CF%84%CE%BF-%CE%B3%CF%85%CE%BC%CE%BD%CE%AC%CF%83%CE%B9%CE%BF-%CE%BB%CE%B9%CE%B2%CE%B1%CE%B4%CE%BF%CF%87%CF%89%CF%81%CE%AF%CE%BF%CF%85-%CF%84%CE%B7%CF%82-%CE%BB/
15	https://www.limnosfm100.gr/limnos/item/56744-gymnasio-livadoxoriou-i-eksypni-taistra-adespoton-zoon-efere-ti-vravefsi.html
16	https://www.limnosfm100.gr/limnos/item/60974-to-gymnasio-livadoxoriou-gia-deyteri-sxoliki-xronia-stis-protis-the-seis-tou-panelliniou-diagonismoy-anoixton-texnologion.html
17	https://www.limnosfm100.gr/limnos/item/55815-ena-gemato-savvatokyriako-sti-limno-kai-sti-xio-gia-to-gymnasio-livadoxoriou.html
18	https://www.limnosfm100.gr/limnos/item/53163-i-omada-piecemaker-tou-gymnasiou-livadoxoriou-sto-10o-mathitiko-festival-psifiakis-dimiourgias.html
19	https://www.limnosfm100.gr/limnos/item/52978-gymnasio-livadoxoriou-i-omada-rompotikis-piecemaker-exei-valei-poly-psila-ton-pixi.html
20	https://limnosxpress.gr/2022/05/18/drasis-rompotikis-kai-technologias-sto-gymnasio-livadochorioy/
21	https://www.limnosfm100.gr/limnos/item/54158-mednight-2021-ola-osa-eginan-sto-nisi-tis-limnou-photos.html
22	https://mednight.eu/blog/2021/06/16/the-mednight-project-is-launched-in-limnos-greece-with-the-presentation-of-this-summer-science-activities-in-different-cities-of-the-mediterranean/
23	https://www.limnosfm100.gr/limnos/item/60110-drasis-rompotikis-kai-technologias-sto-gymnasio-livadoxoriou.html

Training	25	<p>These trainings include teacher and student training throughout the year on the respective tools (Arduino, App Inventor, 3D printing) and co-creation.</p> <p>Detailed information above</p>
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Social Media	15	<p>Facebook and Instagram</p> <ul style="list-style-type: none"> • Reach: 12 055
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Website	0	<ul style="list-style-type: none"> • Web pages about OSHub in SciCo’s website²⁴ • Website of the application developed by the students²⁵
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Participation to a Conference	2	<ul style="list-style-type: none"> • Panhellenic and International Conference on “STE(A)M educators and education” • Ars Electronica 2021 – discussion panel <p>Detailed information in the document in the footnote²⁶</p>
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Participation to a Workshop	2	<p>Ars Electronica 2021 – workshop</p> <p>Detailed information in the document in the footnote²⁶</p>
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Participation to an Event other than a Conference or a Workshop	2	<ul style="list-style-type: none"> • OSHub Inspiration Session #2 • Midnight 2021, Aegean Science Festival • Midnight 2022, European Corner <p>Detailed information in the document in the footnote²⁶</p>
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24 <http://scico.gr/en/activities/open-science-hub/>; <http://scico.gr/activities/open-science-hub/>; <http://scico.gr/scico-maker-lab/>; <http://scico.gr/en/scico-maker-lab/>

25 <http://1epal-myriin.les.sch.gr/fyta/slide-1/>

26 Conferences & Events

Video/Film	0	<ul style="list-style-type: none"> • “What is Open Schooling?” (made by the consortium)²⁷ • “Why would you encourage a peer to take part?”, featuring a local partner²⁸ • “What do I need to know to get started?”, conversation between an “experienced partner” and a newcomer²⁸
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Participation in activities organised jointly with other EU project(s)	2	<ul style="list-style-type: none"> • Midnight 2021, Aegean Science Festival • Midnight 2022, European Corner <p>Detailed information in the document in the footnote²⁹</p>
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Legacy

Projects, such as the OSHub Network, are unprecedented and disruptive for a traditional community, often detached to academia, the research world, scientific achievements and technological advancements.

At the same time, initiatives like this have an intrinsic value and aim to initiate a series of future creative, awareness, inclusive and disruptive initiatives. Examples of such side-initiatives which have already derived from OSHub is the organisation of the first Aegean Science Festival on the island, as well as the European Researcher’s Night, both of which take place in collaboration with the University of the Aegean.

Students have discovered new scientific paths and interests, whilst building knowledge, collaboration and problem solving skills. Teachers have been upskilled and supported and have the tools, knowledge, experience, passion and determination to continue the project in the following years. The university has become more outgoing and has been trained to open its doors and interact with the schools, the teachers, the students as well as the local communities.

On a whole, such projects which need limited resources have a guaranteed sustainability for the coming years, once they have proven their value, whilst at the same time impact the whole of the local community, through small, yet valuable and impactful projects and initiatives.

27 <https://opensciencehub.net/index.html>

28 https://opensciencehub.net/local_OSHub_GR.html

29 Conferences & Events