

NEWSLETTER BY CLIMADEMY ISSUE 2 / JUN 2023

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Climate change teacher's academy

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Our message



We strongly believe that education is a key driver of the transformation of humanity to one with respect for the environment that wishes and can develop in harmony with it.

We are convinced that societal changes require engagement of young people, thus central to the success of humanity's transformation is their education.

This is why CLIMADEMY, the Climate Change Teachers' Academy, is building a dynamic Teacher's Network that initially brings together Teachers from the four participant countries (Finland, Italy, Germany, and Greece) but envisions being extended to the entire Europe.

CLIMADEMY' teachers discuss, support each other and develop new educational material and training approaches to learn about climate change. The educational material targets climate change drivers, impacts and adaptation and mitigation options. CLIMADEMY's Network aims to facilitate and support Teacher's professional development within Europe. It starts with a small number of pilot teachers from each country who will be co-designers and trainees, they will act as the seed for engagement of a continuously increasing number of teachers.



CLIMADEMY needs the active participation of all Teachers to the network.

The CLIMADEMY team

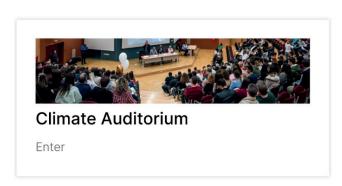
CLIMADEMY partners: PANEPISTIMIO KRITIS - UNIVERSITY OF CRETE (UOC- Greece-Coordinator), ALMA MATER STUDIORUM - UNIVERSITA DI BOLOGNA (UNIBO- Italy), UNIVERSITAET BREMEN (UBREMEN- Germany), REGIONAL DIRECTORATE OF PRIMARY AND SECONDARY EDUCATION OF CRETE (RDPSEC-Greece), ELLINOGERMANIKI AGOGI SCHOLI PANAGEA SAVVA SA (EA-Greece), HELSINGIN YLIOPISTO (UH- FINIAND), FONDAZIONE GOLINELLI (FG-Italy). Associated partners: LICEO SCIENTIFICO TATALE ALBERT EINSTEIN (Italy), OBERSCHULE FINDORFF BREMEN (Germany)

website: https://climademv.eu contact us: info@climademv.edu

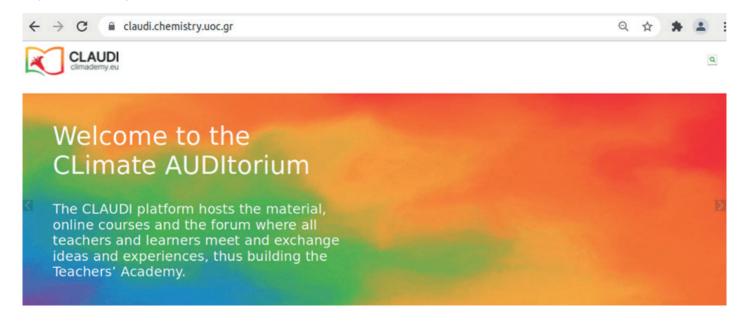
CLAUDI has been launched

One common virtual Climate Auditorium (CLAUDI) is the basis for the Teachers' Academy for climate change education and networking and is connecting four hubs, one in each country, with specific foci driven by the regional particularities.

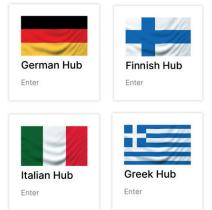
CLAUDI is a platform that supports an effective community building that will help all involved in the training to prepare, adapt and enrich the training activities and run the large-scale implementation activities. CLAUDI will make available all educational material prepared in CLIMADEMY. It will be structured so that each national hub has its domain. Therefore, users from each country may find information relevant to their geographical, cultural and linguistic context easily. CLAUDI will additionally offer the user the option to browse its content based on thematic criteria and access additional material.



CLAUDI can be accessed through the Academy's website https://climademy.eu (ENTER CLAUDI).



The National hubs have been established



The four hubs are established around two air pollution and climate change monitoring stations in two different regions of Europe that both experience exceptionally rapid climate changes when compared to the global mean trends: a close to the Arctic region in a boreal forest in Finland and a Mediterranean semi-arid subtropical region in Greece, while two more hubs will be established focusing on computer modeling and space-based observations of the Earth system in Germany and the pedagogical foundations of environmental education in Italy.

These hubs, through physical, virtual (supported by CLAUDI) and blended training, will provide informal learning settings that can aid teachers in thinking differently about the practice of school science with respect to climate change.

Finnish Hub: The teachers experience a different view of the forest

Hyytiälä forest field station is hosting the Finnish Hub and is available for national and international visits. Several CLIMADEMY activities took place and are described at the Hyytiälä field stations webpage <u>CLIMADEMY</u> <u>-opettajakoulutus | Hyytiälän metsäasema | Helsingin yliopisto</u>, where also teachers can sign up for a newsletter on the activities.



National visit to Hyytiälä: 40 teachers have been introduced to the Hyytiälä Hub and its activities with their groups and students. Visits to Hyytiälä have included guided tours of the climate research station SMEAR II (Station for Measuring Ecosystem-Atmosphere Relations), various workshops on tree carbon sequestration, lectures by scientists on climate change and their research and independent exploration of Hyytiälä's research through an 18-panel science trail.

The 6 Finnish pilot teachers from 4 lyceums have signed up for participation in the CLIMADEMY development of the Finland Hub. The Finnish pilot teachers have been met three times online. The first introductory meeting was on 31 January 2023, followed by meetings on 8 March 2023 and 4 May 2023. During these meetings, materials for the CLAUDI online platform and the competence framework have been discussed and shared.



German Hub: Meeting the Teachers

The first meeting of the "German – Hub" and local teachers took place on the 16th of December 2022 at the University of Bremen premises. During the first meeting, five teachers met with the project coordinator and the local Pls and project members (Photo (©PAD/Marcus Gloger)). Overall, seven (7) local schools with eleven (11) teachers are actively engaged in the training processes linked to the German Hub development.

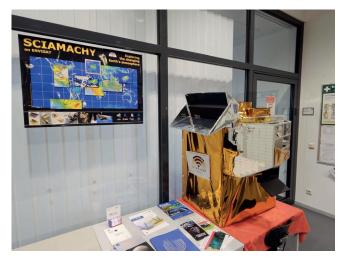


The participants exchanged information on the opportunities to introduce information on climate change in their school curriculum, and they found significant differences among schools. They all agreed on the need to educate on climate change and were enthusiastic about the prospect of having access to climate change educational material and state-of-the-art satellite and modeling data.

At the Institute of Environmental Physics, where the Geman-Hub is hosted, the visitors have the opportunity to see

miniatures of satellites and the state-of-the-art instruments they have onboard to observe Earth's environment. The





SCanning Imaging Absorption spectroMeter for Atmospheric CartograpHY (SCIAMACHY) designed in IUP was an imaging spectrometer on board the European Space Agency's (ESA) ENVISAT mission that provided unique global observations of pollutants including Greenhouse Gases and aerosols in the atmosphere from 2002-2012.

Greek Hub: discussing, proposing, acting

Since December 2022, the Regional Directorate of Primary and Secondary Education of Crete has organized virtual meetings with Secondary Education teachers of Crete to advertise CLIMADEMY objectives and attract them to join efforts in developing the Teacher's Academy Network and co-design educational material for climate change.

Teachers visited the Finokalia observatory of the University of Crete in Lasithi and its supporting infrastructure on 21 and 22 of January 2023 and were introduced to climate change issues and guided in the research and educational activities of the station. The teachers have been enthusiastic about participating in CLIMADEMY networking and co-designing activities but also in having access to the supporting material that will be made available through CLAUDI.



On 17 March 2023, the selected pilot Greek Teachers met with CLIMADEMY's Greek partners at KEME, University of Crete at Gallos Campus in Rethymnon. They represent 7 schools and 3 science laboratory centers for secondary education from Crete. They have been very motivated and presented a variety of good ideas on potential



educational activities for pupils related to the expertise that they wish to develop within CLIMADEMY. These cover physics, chemistry and biology of the atmosphere and the oceans relevant to climate change.

Several virtual workshops of the Greek pilot teachers and CLIMADEMY partners took place with fruitful discussions to support the teachers to implement the pedagogical principles in the design of the teaching material (13 and 27 March and 02 May). The Greek pilot teachers participated in the CLIMADEMY building community virtual workshop on 9 of May, organized by Fondazione Golinelli.

Italian Hub: data, storytelling and civic education

Since the launch of Climademy, <u>Fondazione Golinelli</u>, together with the <u>research group</u> in teaching and history of physics at the University of Bologna, have worked on the creation of a network of teachers and schools in Emilia Romagna. 12 teachers have been involved in the process, representing several schools from the region: <u>Liceo Scientifico e Musicale "A. Einstein"</u> (Rimini); <u>Scuola delle Ideo</u> (Bologna); <u>Istituto Tecnico Agrario Chimico Scarabelli Ghini</u> (Imola); Liceo Leonardo da Vinci (Casalecchio di Reno); <u>Istituto di Istruzione Superiore "Baracca"</u> (Forlì).

These pilot teachers, researchers and experts in education took part in 4 co-designing and discussing workshops during which best practices, teaching approaches, ideas and values for teaching climate change at a local and



national level were shared. During those meeting, the Italian hub priorities were outlined: combining the consolidation of basic scientific skills (on drivers, impacts and mitigation measures), with an active, constructivist and steam pedagogical approach mainly working on future literacy, uncertainty and complexity, data literacy, storytelling, civic education and active citizenship (agency).

The Italian hub is now ready to meet new teachers who want to experiment, adapt, modify the project contents with their classes, contribute to the development of new activities, and discuss with other

colleagues. The Italian CLAUDI platform has been released, and training events for the Italian community of Climademy have been planned and soon are going to be open for booking: 18 September a launch webinar to present activities and programs for 2023-2024; 9, 10, 11 November, at Opificio Golinelli, the first residential training course in Bologna.

Outreach activities

- RDPSE and UOC presented CLIMADEMY at the Dissemination event in the ERASMUS+ days in Heraklion (14-10-2022).
- During the Greek SCIENTIX conference 2022: in Athens on September 23-25, presentation was made by RDPSE of CLIMADEMY and its objectives.

https://pretalx.ellak.gr/scientix2022/talk/KVX9LZ/

(https://doi.org/10.5194/egusphere-egu23-16704, 2023).

- General Assembly 2023 in Vienna in April 24-27)
 which is the largest geosciences conference in Europe with over 15,000 participants. CLIMADEMY solicited poster attracted the attention of teachers and young researchers.
- RDPSEC also participated in the Geosciences Information for Teachers (GIFT) workshop 2023, which was
 organized as a side meeting during EGU 2023, presented CLIMADEMY and the possibility of organizing a
 teachers' training event in the EGU GIFT workshop in 2024 has been raised.
- On May 12th, Fondazione Golinelli presented Climademy at <u>Uniser Teacher Week</u>, the international event on mobility and school innovation mainly addressed to VET schools and providers, including <u>EfVET</u>. The workshop aimed to show Teacher Academy Program opportunities was attended by 27 school managers and teachers.
- UHEL presented Climademy and the Finland Hub at Educa Fair 27.-28.1.2023, an event for teachers in Finland with more than 15 000 visitors.
- Uni-Bremen participated in the European conference "Schools go green and digital and Erasmus+ supports teaching excellence!" in Bonn (Germany), 3-5 May 2023 (photo @PAD/Marcus Gloger). In view of the rising climate change and the pace of digitalization, 200 teachers and researchers from 26 countries joined forces to shed light on the following:



- -What knowledge do teachers need to meet these challenges, and how can Erasmus+ contribute to acquiring this knowledge?
- -What conditions are necessary to create an optimal learning atmosphere and inclusive school setting?
 -How can Erasmus+ projects eTwinning included -
- contribute to this goal?

This meeting provided a great opportunity to present the activities of the CLIMAte change teachers' acaDEMY (CLIMADEMY) project.

- A newsletter for Finnish teachers participating in the network was sent by UHEL on 15.12.2022 and 24.4.2023. A total of 30 teachers have subscribed to the newsletter.
- Climate educational activities of UOC with their flagship CLIMADEMY Network have been at the Municipality of Gortina on Crete
- RDPSE call was open to Greek teachers to express their interest in actively joining CLIMADEY by the end of May 2023 https://forms.gle/z4aHqArci4BMRQHM7





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