



## CONTENTS

- 2 Our message
- 3 Reflecting on progress in 2024
- 4 Finnish HUB
- 6 Greek HUB
- 8 Italian HUB
- 10 German HUB

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## OUR MESSAGE

Summer and Autumn 2024 have been very productive for CLIMADEMY. In this newsletter you will find a report on our project's activities both national and international from the four CLIMADEMY's HUBs. You will also find information on our upcoming international events that are in development for 2025.





# REFLECTING ON PROGRESS

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Reflecting on the progress of the CLIMADEMY, we are happy to announce that many key objectives have been achieved!

## Educational Material on CLAUDI

Our four national HUBs have now extensive databases of educational material in five different languages (Greek, Italian, Finnish, German and English)

## Training of Mentors in all National Hubs

Another milestone achieved by our team was the training of 20 secondary school teachers from the four EU partner countries. These teachers were trained at our national HUBs to act as mentors for future participants of our Academy.

## Educational material embedded in the CLIMADEMY framework

In time for the opening of the Academy to 200 teachers in four European countries (Greece, Italy, Germany and Finland), a set of activities has been developed to serve as the basic teaching material of the Academy. These activities have been developed by each national HUB in collaboration with researchers (both in the field of climate science and science education) and our Academy mentors.



Explore our  
database in  
CLAUDI



## FINNISH HUB

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The [Teachers' Climate Change Forum \(TCCF\)](#) has been organized since 2017 by the University of Helsinki Science Education Team, which is part of the LUMA Centre Finland, and the Institute for Atmospheric and Earth System Research (INAR). It brings together teachers and other education professionals, as well as researchers who are passionate about climate science and sustainability in education. In 2023 and 2024, the TCCF was organized in Hyytiälä as a part of the CLIMATE change teachers' academy ([CLIMADEMY](#)). The programme includes presentations by researchers in both education and atmospheric sciences, hands-on workshops, and informal communication to support the development of a teacher-

researcher network and the dissemination of best practice. In 2024, [TCCF](#) workshops will focus on the use of online tools for climate data and student actions. In 2025, the TCCF will be combined with the [CLIMADEMY Final Conference](#), which will be held from 31 March to 3 April 2025 at the Hyytiälä Forest Station. If you are interested in teaching climate change in schools, stay tuned as abstract submission and registration are now open! In October, science teachers from the Otaniemi Upper Secondary School travelled to the Hyytiälä Forest Station for a two-day programme focused on designing task packages in collaboration with researchers to support climate change education, using the forest as the main subject. Teachers had the



opportunity to visit the forest station to understand how climate data is collected, and workshops included tools for climate data analysis and how to approach values in climate education.

On 17 January, the University of Helsinki is organizing the Climademy Winter Day, where upper secondary school teachers of all subjects in Finland are invited to visit the Institute of Atmospheric and Earth System Research to learn about the multidisciplinary research taking place and to participate in workshops.

A visit to the Museum of Technology was also planned to promote the Climate Maze activity developed by UH researchers.



CLIMADEMY was also presented at the UN Climate Change Conference COP29, where Laura Riuttanen was present. A round table discussion on climate education cooperation was organized.



Juliana Friedrichsen from the UH team received a fully funded research position to conduct her PhD studies. The research will include the CLIMADEMY project, which assesses teachers' professional learning in climate change education.



## GREEK HUB



The CLIMADEMY International Summer School was hosted by Ellinogermaniki Agogi in Athens, Greece from 30 June to 3 July 2024.

The main objective of the Summer School was to provide participating teachers with a better understanding of the drivers and impacts of climate change and the mitigation options, and to increase their effectiveness and confidence in teaching and learning about climate change by equipping them with the necessary subject matter knowledge and teaching strategies.

Therefore, the Course was designed for teachers to explore methodological, theoretical, and practical aspects, challenges, needs, and possible solutions to the difficult task of explaining the complex issue of climate change, in an interactive way through peer learning activities.

During the training days, different topics were explored, such as Climate Education

initiatives and good practices, ways to develop the knowledge, skills, and attitudes that students need for the green transition, pedagogical and methodological approaches to teach about Climate Change and techniques for integrating climate-related topics into the curricula, and a wide variety of lessons in different disciplines.

Participants worked on how to deal with uncertainty and analyse scientific knowledge for envisioning the future, discussed coping strategies for eco-anxiety, played collaborative games and explored digital tools and inquiry-based activities.

Finally, they developed and presented new learning scenarios for teaching climate change in their classrooms and discussed funding opportunities within the ERASMUS+ programme to enhance their school's development plan and learning mobility, as well as creating synergies with other schools.



In November, the Greek Hub hosted the CLIMADEMY Autumn School in Agios Nikolaos, Crete. The school took place from 3 to 5 November 2024 and included lectures and hands-on activities for teachers of all levels of education to familiarise them not only with the scientific concepts of climate change, but also with pedagogical practices that can help them transfer these concepts into the classroom. It started with a Caffee scientific where in a relaxed atmosphere teachers and moderators discussed about scientific truth and pseudoscience around climate change and the role of CLIMADEMY in supporting objective education on climate change.

During the course, participants were introduced to the CLIMADEMY project's framework for teaching climate change and took part in activities that illustrate the application of this framework in the

classroom. These activities took place at the Research and Innovation Centre in Nofalia/Finokalia, Lassithi.

The participants also visited the Environmental Station of the University of Crete in Finokalia to familiarise themselves with the measurements and to get to know the research equipment on which the study of climate change is based.

The Autumn School was attended by teachers of all levels (primary to tertiary) and different specialisations from 6 countries (England, Germany, Italy, Portugal, Finland, Germany, Portugal and Greece). Due to the international character of the school, teachers from all over Europe had the opportunity to interact with colleagues from other countries and exchange views and practices on teaching climate change.





## ITALIAN HUB



From 26th to 29th June 2024, Bologna became a vibrant hub of innovation, creativity, and collaboration as educators and researchers gathered for the **CLIMADEMY International Summer School**. Entitled *"The Human Side of Data: Teaching Climate Change Through a STEAM Approach"*, the event provided a unique opportunity to explore how data can inspire action, empathy, and transformative learning.

The journey began with the theme *"Data Humanism, Data Storytelling and*

*Sustainability Competencies."*

Educators engaged in interactive workshops that turned climate data into a diary, relatable narratives that connect numbers to human experiences and actionable insights. Inspired by the work of designer Giorgia Lupi, participants explored creative ways to make data visually engaging and emotionally impactful.

Through hands-on activities, they discovered how human-centered data visualizations can



## 5 Things We Learned From Information Designer **Giorgia Lupi**

1. Don't let data intimidate you
2. These days, objective analysis only goes so far
3. Think of numbers as storytelling tools
4. Designing with data is like designing in space
5. Cultivate empathy



### GIORGIA LUPi

Giorgia believes that data is beautiful. She challenges the idea that numbers are impersonal, and uses them to design engaging visual narratives. Her goal is to reconnect numbers to what they stand for: stories, people, and ideas.

In other words, Giorgia draws with data. Her work brings numbers into everyday life, and makes them more human in the process. She does this by crossing the divide between digital, print, and handcrafted representations of information.

Giorgia has always been driven by opposing forces: analysis and intuition, logic and beauty, numbers and images. While she was trained as an architect, she went on to get her Doctorate in Design at Politecnico di Milano. There, she focused on information mapping and got the inspiration to start her own company. Now, she is the Design Director and co-founder of *Accurat*, a data-driven research, design, and innovation firm with offices in Milan and New York. Their clients include big names like IBM, Google, and the United Nations.

The world has recognized Giorgia for her creative innovation. She has won numerous awards, including multiple gold medals at the Karlar Information is Beautiful Awards, a Bronze Lion at the Cannes Festival of Creativity in 2013, and the "Lessons di Design" Prize at Milan's Design Week in 2016. Her work has also been exhibited at the Design Museum, Science Museum, and Somerset House in London.

To see more of Giorgia's work, you can check out *Dear Data*, which is now part of the permanent collection of the Modern Art. No big deal.

foster empathy and understanding, especially around complex issues like climate change, and enable deeper student engagement.

On the third day, the focus shifted to "Future Thinking and Scenarios," where participants used tools like the En-ROADS Climate Simulator and the FyouTURES Game to envision diverse futures. Through immersive exercises, they created scenarios shaped by policy choices and societal values, exploring trade-offs and interdependencies.

Activities emphasized the blending of science, creativity, and strategy to address global warming, and taught educators how to integrate future-oriented narratives into their classrooms. The event concluded with a STEAM treasure hunt through Bologna,



blending data, art, and science to connect the city's culture with climate education, providing a dynamic model for community-integrated learning.

Throughout the Summer School, participants not only developed technical skills but also embraced the values of cooperation, creativity, and agency. The summer school fostered a sense of shared responsibility among the teachers.

As the event drew to a close, participants left with a renewed sense of purpose.

“

An idea is nothing more or less than a new combination of old elements.”

James Webb Young

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## GERMAN HUB

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University  
of Bremen



During the summer of 2024, the German Hub participated in the various activities of the CLIMADEMY project. The Summer School in Bologna, the International Summer School in Athens and the training at the Finokalia station in Crete. From 4 to 5 December, the German Hub organized a workshop at the University of Bremen. After an introduction to climate change, a series of lectures and hands-on experiments focused on spectroscopy and remote sensing of the atmosphere, as well as climate modelling.

Among several activities, participants had the opportunity to

- practice using a simplified spectrometer,
- retrieve carbon dioxide concentrations from remote sensing observations,
- test their understanding of the carbon footprint of different human activities from diet to transport preferences,
- use simple web-based modelling applications to predict the future of the Earth under different scenarios.



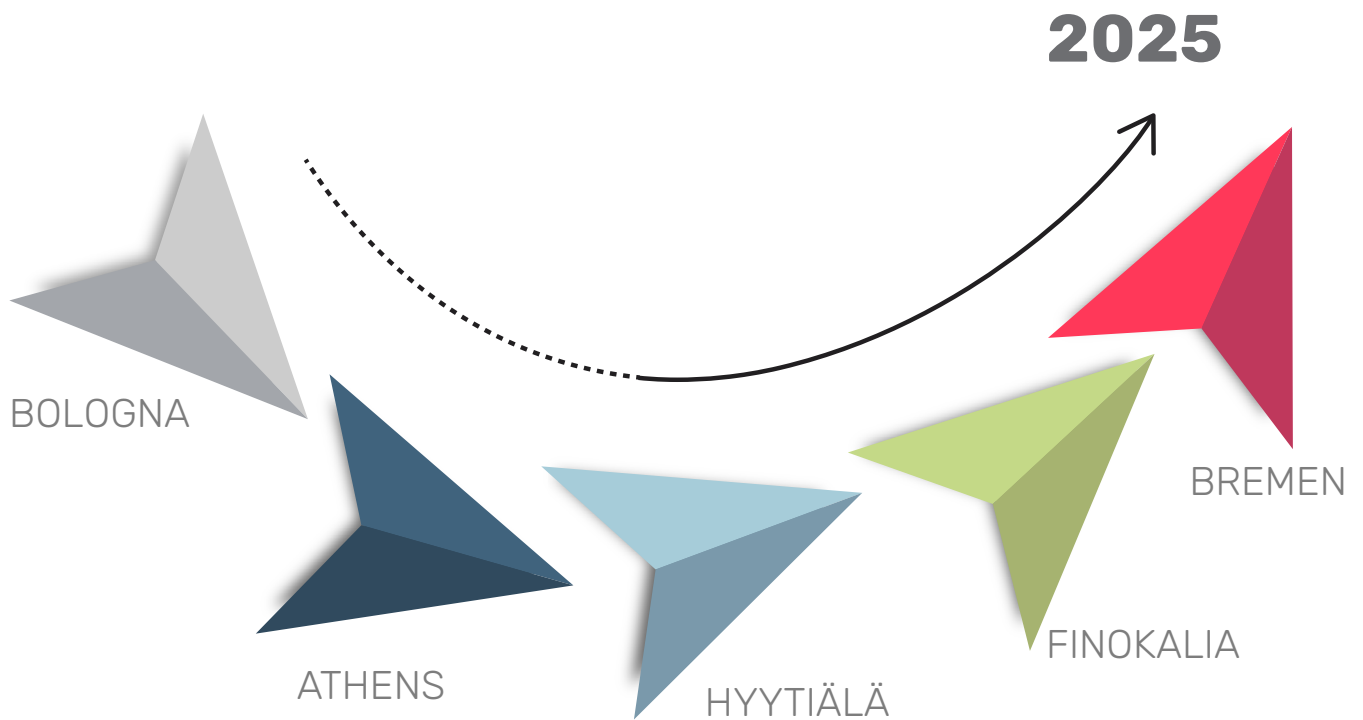
On the 6th of December the participants had the opportunity to visit the Climate Museum in Bremerhaven and experience a journey around the climatic zones of the Earth.





## All 2024 CLIMADEMY workshops were a great success!

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The CLIMADEMY teachers were very positive about their time in the CLIMADEMY schools and the lessons they learned. Especially the ready-to-use teaching tools in the classroom in Bologna were very useful. Right after Bologna there was the International Summer School in Athens. It was a really nice and learning-oriented environment for all three days. All teachers actively participated in the sessions from the Greek hub and the activities sparked discussions during the free time on site. Different approaches and materials between countries for implementing climate

education in the classroom were shared and discussed. During the training session in Finokalia, teachers and students visited the monitoring station where they carried out hands-on experiments on climate change. These activities were complemented by specialized lectures, creating an interactive educational experience. In December, CLIMADEMY teachers had visited the University of Bremen, where they gained insights into satellite observations of the Earth's atmosphere and numerical modelling for climate prediction.



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