



Virtual Exchanges and Climate Education as a Tool for European Partnership Development for SDGs

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Session EOS2.5 "From real-world data and perception to climate change education: A call to action" EGU-2025, 2 May 2025, Vienna, Austria

1 - University of Helsinki, Helsinki, Finland
2 - Finnish Meteorological Institute, Helsinki, Finland
3 - Mechnikov's Odessa National University, Odessa, Ukraine





Erasmus+ ongoing projects with Virtual Exchanges (VEs):

CLUVEX – Climate University for Virtual Exchanges (2023-2026)
https://www.atm.helsinki.fi/cluvex



UnaVEx – Una Europe for Virtual Exchanges for Sustainability (2024-2027) https://www.atm.helsinki.fi/unavex



ClimEd – Multilevel Local, Nation- and Regionwide Education and Training in Climate Services, Climate Change Adaptation and Mitigation (2020-2026)

http://climed.network

These projects are coordinated by the University of Helsinki





Partners of the Projects / Consortia:

CLUVEX project Partners (budget: 474.359 €)

















UnaVEX project Partners (budget: 499.878 €)















ClimEd project Partners (budget: 893.692 €)

























In sumup, Partners from Europe (Belgium, Denmark, Estonia, Finland, Italy, Spain),
Africa (South Africa, Kenya, Democratic Republic of Congo),
Armenia, and Ukraine incl. 2 Ministries of Ukraine
plus, 16 Associated Partners





Online Learning - the Future of Education?

- Concept of traditional education is changing (COVID-19!)
- Being physically present in classroom isn't the only learning option anymore not with the rise of the internet and new technologies, at least
- Online learning access to a quality education whenever and wherever you want, as long as you can get online
- Challenges of distance learning can be little interaction!
- Virtual Exchange (VE) is a tool to increase interaction in distance education!













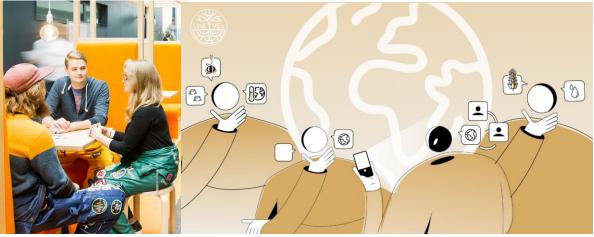




General Aims: CLUVEX & UnaVEx

- to design Virtual Exchange (VE) concept for climate change & for sustainability education
- to bridge students from European, Neighborhood East, and African universities;
- to engage and educate students with competencies in climate and green agenda together with interdisciplinary, green and soft skills & sustainability
- to train moderators for climate change & for sustainability education
- to educate up to 500 students in each 1 VE Week (5 VE Weeks in total, per project)
- to educate altogether 2500 & 2500 students as the "Climate Messengers" & the "Global Sustainability Advocates" in 3 years
- to upscale VE concept to various networks and partnerships internationally

















Welcome to act as a Moderator

The VEs organized by the CLUVEX & UnaVEx projects (led by Univ Helsinki) are currently the largest EU VEs projects in their field offer a unique opportunity to learn about remote working and teaching in an international environment.

Moderators central role is ONLINE to support and motivate international and interdisciplinary interactions, discussions, and learning in small groups of students.

Moderators will

- get the necessary ECTS credits from the University of Helsinki/ Open University,
- get a certificate related to studies and moderator's activities,
- try pedagogy and language skills in international small groups of students,
- > learn technical remote working and interaction skills needed in the working life,
- > increase personal network with the organizing/hosting/collaborating universities,
- have a unique experience that broadens world view.













Calls for Virtual Exchange (VE) Weeks for Students



VIRTUAL BRIDGE BETWEEN EUROPEAN & AFRICAN STUDENTS FOR SUSTAINABLE FUTURES

Main Activity

- To announce 5 + 5 VE Calls and organize and carry out online in Zoom the interactive trainings called "VE Weeks-for-students" in 2024-2026
- CLUVEX: <u>VE Week program includes</u>: attendance of plenary sessions (lectures on climate related topics and demo of tools for visualization and analysis of climate related data) + online work (in break-out-rooms) in small groups of students (guided by educated CLUVEX moderators) discussing specific topics of climate change + working on Individual and Collaborative "Climate Horizon" exercise.
- UnaVEx: VE Week program includes: attendance of inspiring guest speakers and discussions on different perspectives on sustainability (sustainable development as a concept and in politics, ecological, social, economic, cultural sustainability) + online work online in small group of students with peers and moderators (guided by educated UnaVEx moderators) discussing and developing a collaborative,
 Sustainability-themed Action Task + self-studying the "Introduction to sustainability" online course.







Virtual Exchange Call for Students





Each VE Week

includes: 3 h of online work

from Monday-

to-Friday







Virtual Exchange Week

Up to 500 students + up to 50 moderators + tech. support staff













students











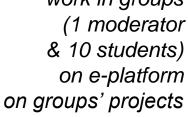


work in groups

work in groups (1 moderator & 10 students) on e-platform on groups' projects















1st CLUVEX & UnaVEx Virtual Exchange Weeks





Lecturers and Guest Speakers





Sustainable Development as a Concept and in Politics President Tarja Halonen



Ecological Sustainability Prof. Daniel Olago



Social and Economic Sustainability Prof. Evans Njewa



Cultural Sustainability Prof. Ezio Manzini



Climate Change, Disasters, Carbon-neutrality and UN SDGs Prof. Alexander Baklanov



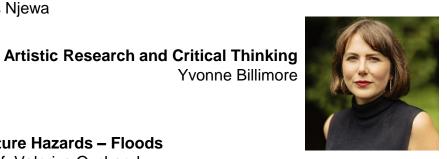
Navigating Planetary Boundaries Assoc. Prof. Inna Khomenko



Climate Change Impact on Water Resources Profs. Olga Shevchenko & Sergiy Snizhko



Nature Hazards - Floods Prof. Valeriya Ovcharuk





Impacts of Climate Change and Future Outlook Prof. Hasmik Movsesyan



Towards Sustainable Future Utopia Prof. Antti Rajala

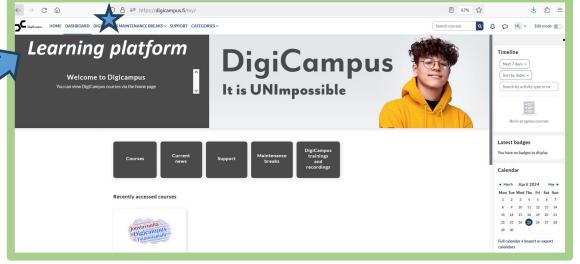
VE Week - Work in Groups on Climate Horizon

Co-funded by the
Erasmus+ Programme
of the European Union

CLUVEX

Learning + Communication + Collaboration Platforms (★)





DigiCampus for sharing materials for students & moderators:

- VEG Virtual Exchaneg Guidebook
- CLG Climate Literacy Guidebook
- CMC Climate Messenger Code of Conduct
- Videos+slides of 8 lectures & 3 tools for data analysis
- Group Exercise "Climate Horizon"
 & linking to SDGs
- Questionaries



VE Week – Earned Bonuses for

CLUVEX & UnaVEx Students











- 1 & 1(+3) ECTS credits by University of Helsinki/ Open University
- CLUVEX & UnaVEx Certificate
- Status of Climate Messenger & Global Sustainability Advocate
- Welcome to Online Courses of Climate University & Una Europa and Climate University



Welcome to Climate University Online Courses





Students (BSc, MSc, PhD, PostDocs) who paricipated in CLUVEX VE Weeks and became the **Climate Messengers**

are also encouraged to take the Climate University online courses

https://climateuniversity.fi

Climate University

- brave forerunner in educating active sustainability makers for the society and business -







Welcome to Una Europa & Climate University Online Courses



Students (BSc, MSc, PhD, PostDocs) who paricipated in UnaVEx VE Weeks and became the **Global Sustainability Advocates**

are also encouraged to take the Una Europa & Climate University online courses

Building on the Una Europa Micro-credential in Sustainability

https://www.una-europa.eu/study/microcredential-sustainability/programme-information







Climate.now. 2 ECTS

University of Helsinki









Sustainability and the arts, 1 ECTS University of Bologna





ClimEd Trainings – Approach in VEs



- > Development **programme** with specific focus of training
- Announcement of the training & opening web-page (at http://climed.network/events/climed-trainings)
- Web-applications/ evaluation/ informing & assigning successful applicants to groups/ granting access to Moodle system
- > **Training event** (lectures, home-work-assignments as group's projects, presentations/ defences) lecturing materials (slides & videos) are asap publicly available at web-page of the training
- Evaluation of group's presentations (by lecturers
 & organizing committee) & awarding certificates
- > **E-evaluation** of the training & of own (participants) learning outcomes
- Self-evaluation (by ClimEd project) of the completed training









Covid19: Online vs. Onsite/ Hybrid



Because **covid19 pandemic**, the originally planned face-to-face trainings were required to be converted into **online trainings**

- (i) Online lecturing
- (ii) Home-work-assignments (HWAs) as groups' projects
- (iii) Final oral presentations (projects' defences) of HWAs with evaluation and feedbacks, discussions, and awarding certificates (corresponding to ECTS credits)

Moving to face-to-face or onsite events (and combining also with online participation) - hybrid

- (i) Lecturing (combined onsite & online teaching)
- (ii) Work in groups (onsite vs. online groups OR mixture of online/onsite participants in groups)
- (iii) Final oral presentations of work done in groups with evaluation and feedbacks, discussions, and awarding certificates (corresponding to ECTS credits)













Spain & Estonia - ClimEd Trainings 4-7 in 2024-2025

















ClimEd Trainings, LOs, Groups, Participants

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Tr#1: Competence-Based Approach to Curriculum Development for Climate Education (10 LOs)
         12 Groups – 46
                  (19 April – 12 May 2021) / Online – completed
Tr#2: Adaptation of the Competency Framework for Climate Services to conditions of Ukraine (5 LOs)
          12 Groups – 56
                   (29 June – 26 August 2021) / Online – completed
Tr#3: Digital tools and datasets for climate change education (12 LOs)
          12 Groups – 45
                   (26 October – 12 November 2021) / Online – completed
Tr#4: Learning courses' development in climate services considering needs of different users (7 LOs)
         12 Groups – 50 persons
                   (6-10 May 2024) / Onsite-Hybrid (Spain) – completed
Tr#5: Applying different technologies of blended/on-line learning in education (5 LOs)
         8 Groups – 34 persons
                   (30 Sep – 4 Oct 2024) / Onsite-Hybrid (Estonia) – completed
Tr#6: Mastering technologies of massive open on-line courses development for general public (6 LOs)
         15 Groups – 58 persons
                   (10-14 Feb 2025) / Onsite-Hybrid (Estonia) – completed
Tr#7: Skills to use climatic information and services for climate-dependent branches of economy (9 LOs)
         16 Groups – 79 persons
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(7-11 Apr 2025) / Onsite-Hybrid (Spain) – completed



Acknowledgements

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