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

Deliverable 5.6.

ClimEd Training №6: Mastering Technologies of Massive Open Online Courses Development for General Public

Grant Agreement No.	619285-EPP-1-2020-1-FI-EPPKA2-CBHE-JP
Project acronym	ClimEd
Project full title	Multilevel Local, Nation- and Regionwide Education and Training in Climate Services, Climate Change Adaptation and Mitigation
Dissemination level	International
Contributing WP(s)	WP5. Staff training
Due date of deliverable	28.2.2025
Delivery date	28.2.2025
Deliverable name	ClimEd Training №6: Mastering Technologies of Massive Open Online Courses Development for General Public
Version	1
Type	Report, Event
Status	Final
Author(s)	Valeriya Ovcharuk, Inna Khomenko (ONU); Alexander Mahura, Hanna K. Lappalainen, Laura Riuttanen (UHEL); Volha Kaskevich (EULS)
Contributing author(s)	Drs. Jon Xavier Olano Pozo (URV, Universitat Rovira i Virgili, Spain), Prof. Kalev Sepp, Drs. Anna Beitane, Veljo Kabin, Volha Kaskevich, Anton Shkaruba (Estonian University of Life Sciences, Estonia); Drs. Laura Riuttanen, Rami Ratvio (UHEL, University of Helsinki, Finland)
Reviewer(s)	Svyatoslav Tyuryakov (UHEL)
Abstract	Summary of the 6th ClimEd Online Training on "Mastering Technologies of Massive Open Online Courses Development for General Public" (10-14 February 2025). All materials of the training are available at: http://climed.network/events/climed-trainings/climed-training-6

	Name	Date
Verification by WP leader	Alexander Mahura	23.2.2025
Check by coordinator	Hanna K. Lappalainen	25.2.2025

Table of Contents

1. INTRODUCTION 3
2. The 6th Climed Training: MASTERING TECHNOLOGIES OF MASSIVE OPEN ONLINE COURSES DEVELOPMENT FOR GENERAL PUBLIC 3
2.1. Lecturing Materials 5
2.2. Group Work / Group Projects 6
2.3. Group Work, Projects Defenses & Certificates 6
2.4. Evaluation of the Training 7
3. ACKNOWLEDGEMENTS 10
4. ANNEXES 11
4.1. Announcement of the 6th ClimEd Training 11
4.2. List of Participants of the 6th ClimEd Training 14
4.3. 6th ClimEd Training Certificates 16

1. INTRODUCTION

The ClimEd project "**Multilevel Local, Nation- and Regionwide Education and Training in Climate Services, Climate Change Adaptation and Mitigation**" (2021-2026; http://climed.network) is developing the competency-based curricula for continuous comprehensive training of specialists in the field of climate services in Ukraine, as well as initiating and developing the additional education in climate change for decision-makers, experts in climate-dependent economic sectors and wider public, which are to contribute to stabilization of the national economy in the face of the climate change and its adaptation to the upcoming climate change.

The ClimEd Trainings (http://climed.network/events/climed-trainings) are focused on training the faculty/ teaching/ research staff and postgraduates at the ClimEd partner institutions and collaborating organizations in advanced educational and information-and-communication technologies for building a flexible multi-level integrated practice-based education system in the field of Climate Services, Climate Change Adaptation and Mitigation.

In total, 7 trainings (Tr) are planned during lifetime of the ClimEd project, and these are the following:

- Tr1: Competency-Based Approach to Curriculum Development for Climate Education
- Tr2: Adaptation of the Competency Framework for Climate Services to conditions of Ukraine
- Tr3: Digital tools and datasets for climate change education
- Tr4: Learning courses' development in climate services considering needs of different users
- Tr5: Applying different technologies of blended/on-line learning in education
- Tr6: Mastering technologies of massive open on-line courses development for general public
- Tr7: Skills to use climatic information and services for climate-dependent branches of economy.

2. THE 6TH CLIMED TRAINING: MASTERING TECHNOLOGIES OF MASSIVE OPEN ONLINE COURSES DEVELOPMENT FOR GENERAL PUBLIC

The ClimEd 6th Training on "ClimEd Training N6: Mastering Technologies of Massive Open Online Courses Development for General Public" took place in a hybrid mode during 10-14 February 2025. The ClimEd project trainings are focused on training the faculty/ teaching/ research staff and postgraduates at the ClimEd partner institutions and collaborating organizations in advanced educational and information-and-communication technologies for building a flexible multi-level integrated practice-based education system in the field of Climate Services, Climate Change Adaptation and Mitigation.

In total, 58 persons (including 47 females and 11 males; and 13 young teachers/researchers) were accepted to participate in this onsite/online (hybrid) training. These were from the Ukrainian ClimEd partners and other institutions such as ONU - Odessa I.I. Mechnikov National University (Odessa, Ukraine); KNUCA - Kyiv National University of Construction and Architecture (Kyiv, Ukraine); BekNU - O. Beketov National University of Urban Economy (Kharkiv, Ukraine); LPNU - Lviv Polytechnic National University (Lviv, Ukraine); BTNAU - Bila Tserkva National Agrarian University (Bila Tserkva, Ukraine); ONMU - Odesa National Medical University (Odessa, Ukraine); NUOMA - National University Odessa Maritime Academy (Odessa, Ukraine); TSNUK - Taras Shevchenko National University of Kyiv (Kyiv, Ukraine); ICSA - Institute of Climate-Smart Agriculture NAAS (Odessa region, Ukraine), VNKNU – V. N. Karazin Kharkiv National University (Kharkiv, Ukraine).

The training included a series of lectures delivered during 10-14 February 2025. The Lecturing

Blocks (B1, B2, B3, B4).

B1 (Monday, 10 Feb 2025) – Foundations of MOOC Development for the General Public. Introducing participants to the principles and processes behind designing Massive Open Online Courses (MOOCs). This block covers foundational concepts, including sustainability-focused competencies, advanced educational technologies, and practical applications for public engagement through MOOCs.
B2 (Tuesday, 11 Feb 2025) – Practical Techniques and Tools for MOOC Creation. This block emphasizes hands-on workshops and lectures on developing MOOCs using innovative tools such as H5P and Canva. Participants will explore practical examples and learn to design sustainability-driven MOOCs with engaging content and materials.
B3 (Wednesday, 12 Feb 2025) – Enhancing MOOC Engagement and Learning Strategies. Focused on interactive elements such as video editing, assessment strategies, and marketing techniques to attract and retain learners. Participants will engage in practical sessions, leveraging educational technologies to maximize course effectiveness.
B4 (Thursday, 13 Feb 2025) – Presentations and Collaborative Feedback for MOOC Success. Participants will present their group work, receive critical feedback, and discuss strategies for deploying MOOCs to the public. The block concludes with completion ceremonies and reflections on applying MOOC tools and methods to enhance online education.

The lectures were delivered by Dr. Anna Beitane (Johan Skytte Institute of Political Studies, University of Tartu, Estonia), Dr. Rami Ratvio (University of Helsinki, Finland), Dr. Jon Xavier Olano Pozo (Institut Universitari de Recerca en Sostenibilitat, Canvi Climàtic i Transició Energètica, Universitat Rovira i Virgili, Spain), Dr. Laura Riuttanen (Institute for Atmospheric and Earth System Research, University of Helsinki, Finland), Veljo Kabin (Estonian University of Life Sciences, Estonia).

On 10 Feb 2025, the Groups'/ teams' work included a Workshop on "Practical Tasks on MOOC Design" and Practical Sessions I & II (Group Work on SSRPs).

During these days (for participants onsite) all the training participants had realized onsite and remotely own small-scale research projects (SSRPs). Each mixed group included several persons – from different Universities, genders, and ages. In total, 15 Groups (F01-F15) focused on the themes of mastering Moodle for creating examples of sustainability-driven MOOCs with engaging content and materials. Each Group's main goal was to develop MOOCs using innovative tools such as H5P and Canva. The Groups established horizontal communication within/between groups and worked on their own related Group Projects.

On 13 Feb 2024, 4 Groups of onsite and 11 online participants presented own completed projects: F01 "Interaction Between Climate Change and Animal Husbandry"; F02 "Plant Panels Cultivating Around Cowssheds: A Method of Adaptation and Mitigation to Climate Change"; F03 "Economic Activities and Climate Change: Interconnected Dynamics"; F05 "Optimization of Agricultural Crops Mineral Nutrition Under Climate Change Conditions"; F06 "The Climate Puzzle: Exploring the Forces Behind Global Change"; F07 "The Impact of The Construction Industry on Climate Change"; F08 "Climate Change Impact of Economic Sectors"; F09 "IAMS: Basic Modelling Techniques"; F10 "How Climate Change Affects Agriculture"; F11 "Climate Change: Challenges and Opportunities for The Construction Sector"; F12 "Fundamentals of Paleoclimatology. Paleoclimatic Reconstructions on Ice Cores"; F13 "Climate-Forming Capacity of Plants in Urban Landscapes"; F14 "Climate dynamics for sustainable tourism and recreation planning"; F15 "Information Technologies in Climate-Smart Agriculture". All presentations were constructively discussed, evaluated, criticized

and commented as well as overall evaluated on a scale (1-10). As a result of the evaluation, the ClimEd training certificates (corresponding to 3 ECTS) were awarded as recognition of participants' achieved learning outcomes.

All Groups got high scores, and, respectively, have been awarded the certificates and invited participants for the ClimEd 7th Training (7-11 April 2025 as onsite/online (hybrid) training in Spain). It was stressed that participants of the training had obtained an understanding of the principles and processes behind designing Massive Open Online Courses (MOOCs). The training was combined with interesting social activities, which all participants enjoyed. Moreover, on February 14, 2025, the final day of the training, the EULS team organized a field trip to Soomaa National Park, Setomaa Cultural Center, and Värska Farm Museum. The trip left participants with vivid impressions and unforgettable memories, creating a warm and friendly atmosphere that perfectly wrapped up the event.

The e-evaluation of the ClimEd 6th Training was done using two questionnaires distributed among participants. Following the 1st questionnaire – (Evaluation of the Training) – 97% of the participants estimated overall rating for this course as" very good" and "good"; training materials were of "excellent" (90%), and "very good" (10%) quality and information about the training was sufficient (100%), and participants will recommend such training to colleagues (97%). Following the 2nd questionnaire – (Self-Evaluation of the Obtained Competencies and Skills) – about 92% of participants "fully agreed" and "mostly agreed" that they have obtained/ improved their competencies and got skills working as groups.

Special thanks to all lecturers of the training – Anna Beitane (Johan Skytte Institute of Political Studies, University of Tartu, Estonia), Rami Ratvio (University of Helsinki, Finland), Jon Xavier Olano Pozo, Anna Boqué-Ciurana and Prof. Enric Aguilar (Universitat Rovira i Virgili, Spain), Laura Riuttanen (University of Helsinki, Finland), Veljo Kabin (Estonian University of Life Sciences, Estonia) – for their professionalism, enthusiasm, and commitment to the training; and EULS team – Prof. Kalev Sepp; Dr. Volha Kasakevich, and Educational technologist Veljo Kabin, – for excellent organization and warm atmosphere during the training. Thanks to the ONU team members (Drs. Valeriya Ovcharuk, Inna Khomenko, and Nataliia Bulat, and IT-manager Vladimir Andrusenko) for support with ClimEd relevant modules development; e-evaluations; continuous web-update of the training materials.
All materials of the training (slides and videos of lectures, presentations of exercises, and homework-assignments as group projects, etc.) are available at http://climed.network/events/climed-trainings/climed-training-6. The training outcomes were also disseminated through the PEEX (Pan-Eurasian Experiment; https://www.atm.helsinki.fi/peex) network through quarterly PEEX NewsLetters & PEEX Blog (https://peexhq.home.blog/2025/02/22/sumup-about-6th-climed-training), maintained by UHEL; at Facebook https://www.facebook.com/groups/111908180744713, maintained by ClimEd.

2.1. Lecturing Materials

During the 6th ClimEd Training, in total 8 lectures were delivered.
Lecture 1 – "MOOC Design Process from A to Z " by Anna Beitane (Johan Skytte Institute of Political Studies, University of Tartu, Estonia) (video)
Lecture 2 – "Development of MOOC Content on Sustainability Competencies" by Rami Ratvio (University of Helsinki, Finland) (UHEL) (video)
Lecture 3 – "Introduction to Practical MOOC Development: Crop Calendar Case " by Jon Xavier Olano Pozo (Universitat Rovira i Virgili, Spain) (URV) (video)

Lecture 4 – "Advanced Techniques in MOOC Development and H5P and Canva for MOOC Design" by Jon Xavier Olano Pozo (Universitat Rovira i Virgili, Spain) (URV) (video)
Lecture 5 – "Designing MOOCs for Sustainability Education" by Laura Riuttanen (University of Helsinki, Finland) (UHEL) (video)
Lecture 6 – "Content and Presentation of Learning Materials in MOOCs " by Veljo Kabin (Estonian University of Life Sciences, Estonia) (EULS) (video)
Lecture 7 – "Interactive Elements in Creating MOOCs and Video Editing Tools" by Veljo Kabin (Estonian University of Life Sciences, Estonia) (EULS) (video)
Lecture 8 – "Assessment Strategies and Learner Engagement: Marketing and Attracting Learners " by Veljo Kabin (Estonian University of Life Sciences, Estonia) (EULS) (video)

2.2. Group Work / Group Projects

During the 6th training, group work included hands-on workshops and lectures on developing MOOCs using innovative tools such as H5P and Canva. Participants explored practical examples and learned to design sustainability-driven MOOCs with engaging content and materials. Throughout the training, all participants - both onsite and remote -conducted their small-scale research projects (SSRPs). Each group worked on its respective project, focusing on climate change impacts on agriculture, the economy, and construction, as well as adaptation and mitigation strategies, modeling techniques, and the role of ecosystems in climate regulation. Practical workshops incorporated interactive elements such as video editing, assessment strategies, and marketing techniques to attract and retain learners. Participants engaged in hands-on sessions, leveraging educational technologies to enhance course effectiveness. Additionally, they mastered the use of Moodle for creating sustainability-driven MOOCs with engaging content and materials

2.3. Group Work, Projects Defenses & Certificates

On 13 Feb 2025, each Group presented (in English) Group Work as its own realized SSRPs with a specific focus. The presentations – Group F01-F15 (link to video), were constructively criticized and commented on as well as overall evaluated on a scale (1-10). As a result of the evaluation, all Groups got the ClimEd training certificates (see example in Annex 4.3) corresponding to 3 ECTS as recognition of their achieved learning outcomes.

The following Small-Scale Research Projects (SSRPs) were presented and defended by 13 Groups:

- F01 "Interaction Between Climate Change and Animal Husbandry";
- F02 "Plant Panels Cultivating Around Cowsheds: A Method of Adaptation and Mitigation to Climate Change";
- F03 "Economic Activities and Climate Change: Interconnected Dynamics";
- F05 "Optimization of Agricultural Crops Mineral Nutrition Under Climate Change Conditions";
- F06 "The Climate Puzzle: Exploring the Forces Behind Global Change";
- F07 "The Impact of The Construction Industry on Climate Change";
- F08 "Climate Change Impact of Economic Sectors";
- F09 "IAMS: Basic Modelling Techniques";
- F10 "How Climate Change Affects Agriculture";
- F11 "Climate Change: Challenges and Opportunities for The Construction Sector";
- F12 "Fundamentals of Paleoclimatology. Paleoclimatic Reconstructions on Ice Cores";
- F13 "Climate-Forming Capacity of Plants in Urban Landscapes";
- F14 "Climate Dynamics for Sustainable Tourism and Recreation Planning"
- F15 "Information Technologies in Climate-Smart Agriculture"

The Obtained Competencies and Learning Outcomes (OC&LO) of 6th ClimEd training included the following:

- Understanding of what a MOOC is and how it differs from a traditional e-course.
- The ability to design the MOOC development process, from idea generation to course implementation.
- The ability to apply techniques for developing MOOCs using platforms like Moodle and Canvas.
- The ability to create and present learning materials and interactive content using H5P.
- The ability to use assessment and feedback tools for MOOCs.
- Presented their group work, which involves creating a micro-course for a MOOC.

All Groups were approved participants for the ClimEd 6th Training as onsite/online (hybrid) training event in Estonia.

2.4. Evaluation of the Training

The evaluation of the training was performed through the questionaries ("Evaluation of the Course" & "Evaluation of the Learning Outcomes") distributed among participants. For the questionaries, in total 31 responses from the participants were obtained for both the 1st and 2nd questionaries, and these are summarized below.

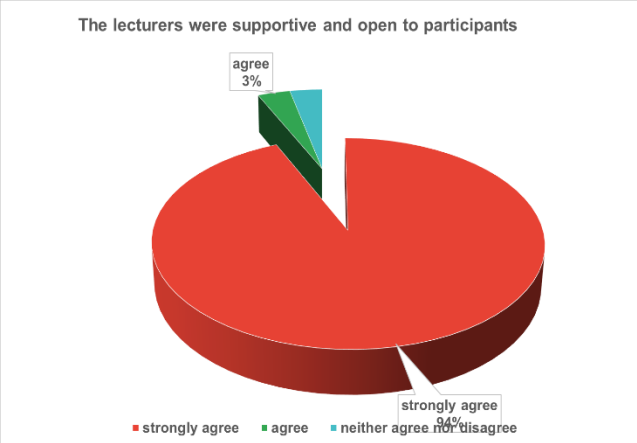
Following the 1st questionnaire – (Evaluation of the Training) – 97% of the participants estimated overall rating for this course as" very good" and "good"; training materials were of "excellent" (90%), and "very good" (10%) quality and information about the training was sufficient (100%), and participants will recommend such training to colleagues (97%). Following the 2nd questionnaire – (Self-Evaluation of the Obtained Competencies and Skills) – about 92% of participants "fully agreed" and "mostly agreed" that they have obtained/ improved their competencies and got skills working as groups.

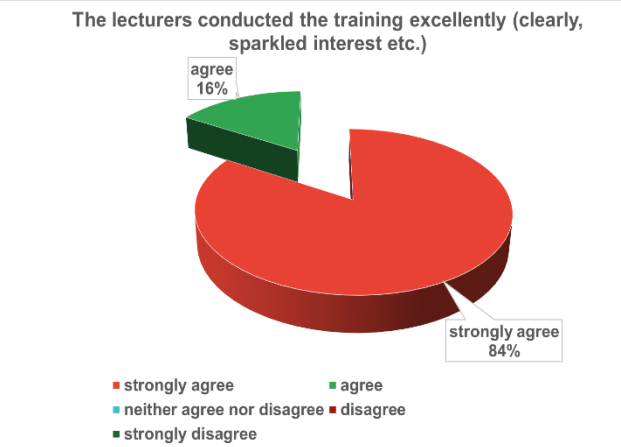
Questionnaire N1: Evaluation of the Course:

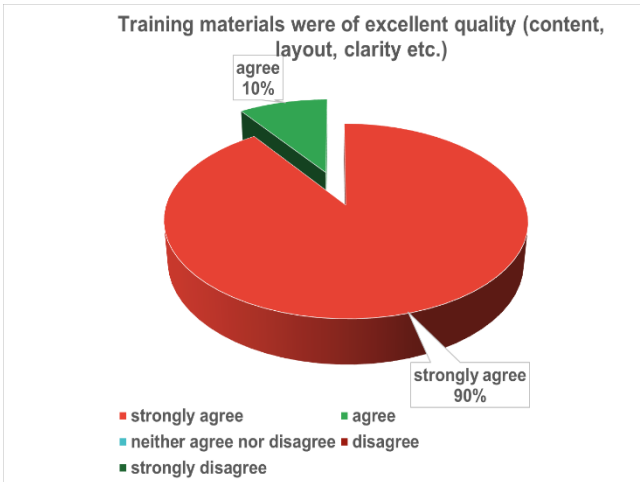
Scale: strongly agree | agree | neither agree nor disagree | disagree | strongly disagree

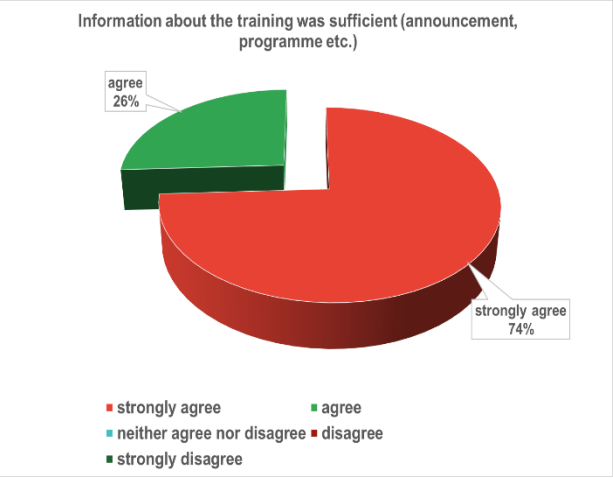
1. The lecturers were supportive and open to participants
2. The lecturers conducted the training excellently (clearly, sparkled interest etc.)
3. Training materials were of excellent quality (content, layout, clarity etc.)
4. Information about the training was sufficient (announcement, programme, etc.)
5. I will recommend such training to my colleagues

Question	1	2	3	4	5	AVG, %
strongly agree	94	84	90	74	87	85,0
agree	3	16	10	26	10	12,0
neither agree nor disagree	3	-	-	-	3	3,0
disagree	-	-	-	-	-	
strongly disagree	-	-	-	-	-	









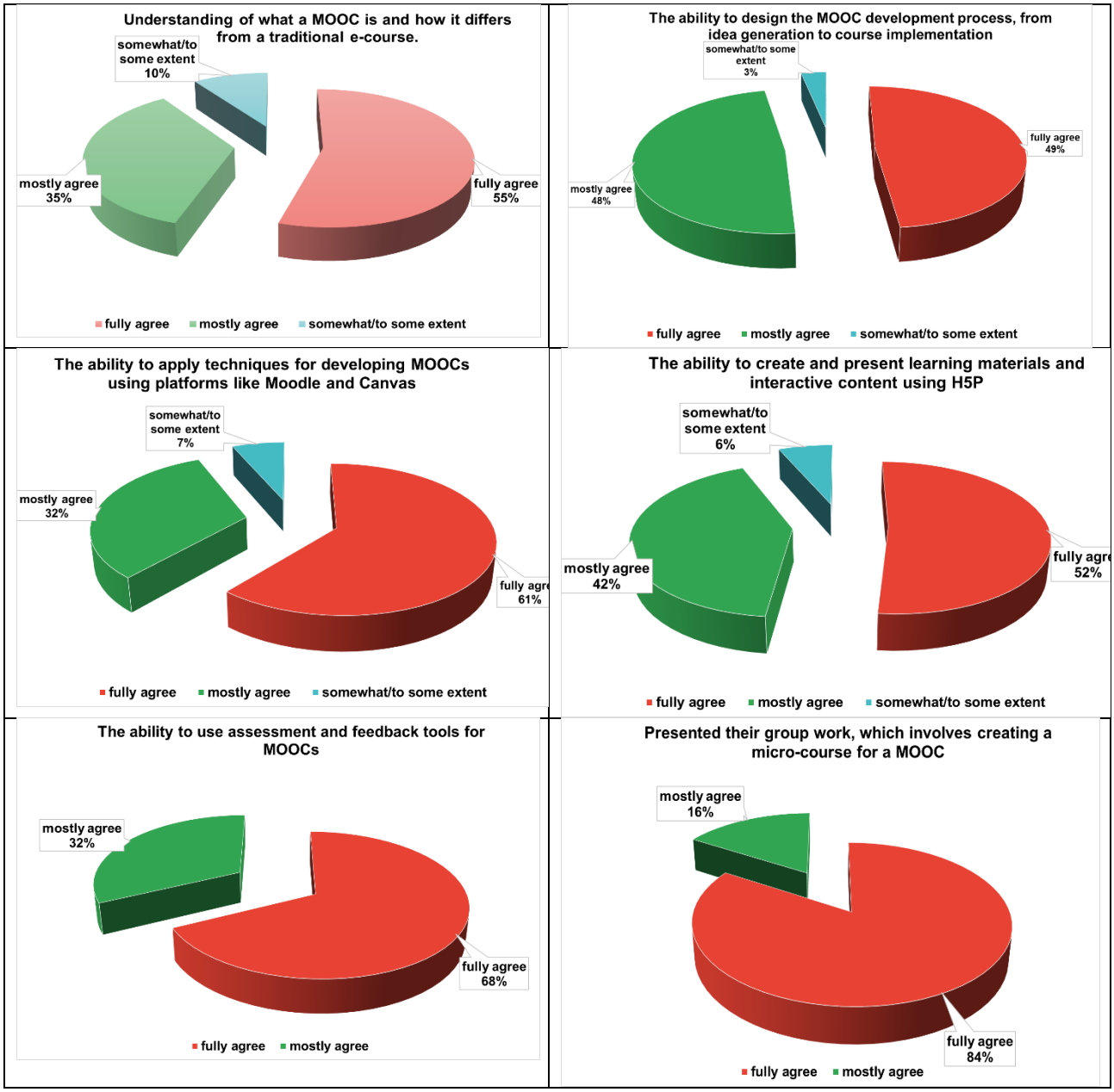
Questionnaire N2: Evaluation of the Learning Outcomes (LOs):

To which extent do you think that you developed the learning outcomes (competences/ abilities to) of the 6th ClimEd training?
Scale: not at all | slightly | somewhat/to some extent | mostly agree | fully agree

1. Understanding of what a MOOC is and how it differs from a traditional e-course.
2. The ability to design the MOOC development process, from idea generation to course implementation.

3. The ability to apply techniques for developing MOOCs using platforms like Moodle and Canvas.
4. The ability to create and present learning materials and interactive content using H5P.
5. The ability to use assessment and feedback tools for MOOCs.
6. Presented their group work, which involves creating a micro-course for a MOOC.

Learning Outcomes	1	2	3	4	5	6
fully agreed	55	48	61	52	68	84
mostly agreed	35	48	32	42	32	16
somewhat/to some extent	10	3	6	6		
slightly	-	-	-	-	-	-
not at all	-	-	-	-	-	-



3. ACKNOWLEDGEMENTS

Special thanks to all lecturers of the training – Anna Beitane (Johan Skytte Institute of Political Studies, University of Tartu, Estonia), Rami Ratvio (University of Helsinki, Finland), Jon Xavier Olano Pozo (Universitat Rovira i Virgili, Spain), Laura Riuttanen (University of Helsinki, Finland). Veljo Kabin (Estonian University of Life Sciences, Estonia) – for their professionalism, enthusiasm, and commitment to the training; and EULS team – Prof. Kalev Sepp; Dr.Volha Kaskevich, and Educational technologist Veljo Kabin - for excellent organization and warm atmosphere during the training. Thanks to the ONU team members (Dr. Valeriya Ovcharuk, Dr. Inna Khomenko, Dr. Nataliia Bulat, and IT-manager Vladimir Andrusenko) for support with ClimEd relevant modules development; e-evaluations; continuous web-update of the training materials.

All materials of the training (slides and videos of lectures, presentations of exercises and homework assignments as group projects, etc.) are available at http://climed.network/events/climed-trainings/climed-training-6.

Results of the ClimEd Trainings were also presented at:

- International Research-To-Practice Conference "Climate Services: Science and Education" (*22-24 September 2021, Odessa, Ukraine*) oral presentation "Online Approaches for Climate-Oriented Education" in section "Education in Climate Services" https://odeku.edu.ua/wp-content/uploads/2021-a-conference_proceedings-21-09-isbn.pdf;
- Eastern Mediterranean & Middle East – Climate Atmosphere Research Center Workshop *(11-12 October 2021, Cyprus)*; oral presentation "Climate-related education: on-line approach in COVID times" in section "Education and Training Opportunities"; https://climatechange2021.org/wp-content/uploads/Book-of-Abstracts_Virtual Workshop_AC0710-js1.pdf;
- SYMET-14 "Education and Training in a Period of Rapid Change" (*22-25 November 2021, Switzerland*); poster presentation "Online trainings in climate-oriented education"; https://symet-14.virtualpostersession.org.
- European Geosciences Union (EGU) General Assembly 2022 (May 2022); oral presentation "Climate-Oriented Trainings in the Field of Climate Services, Climate Change Adaptation and Mitigation"; https://meetingorganizer.copernicus.org/EGU22/EGU22-4895.html; *Ovcharuk, V., Mahura, A., Kryvomaz, T., Aguilar, E., Olano, J., Khomenko, I., Shabliy, O., Sogacheva, L., Zhou, P., Mäkelä, A., Krakovska, S., Lappalainen, H., Stepanenko, S., Lauri, K., Riuttanen, L., Tyuryakov, S., and Bashmakova, I.: CLIMATE-ORIENTED TRAININGS in the field of Climate Services, Climate Change Adaptation and Mitigation, EGU General Assembly 2022, Vienna, Austria, 23–27 May 2022, EGU22-4895, https://doi.org/10.5194/egusphere-egu22-4895, 2022.*
- The International Conference on Regional Climate-CORDEX 2023 (ICRC-CORDEX 2023) was held 25-29 of September 2023 in Trieste, Italy; pico-presentation "*Development of Multilevel Local, Nation- and Regionwide Education and Training in Climate Services in Ukraine" https://icrc-cordex2023.cordex.org/*
- *ACCC-FASN Science Conference 11-12 Nov 2024. CLIMED: CLIMATE-ORIENTED TRANINGS. A. Mahura, V. Ovcharuk, T. Kryvomaz, E. Aguilar, J. Olano, I. Khomenko, O.Shablii, V. Kaskevich, S. Kalev, V. Kabin, H.K. Lappalainen, L. Riuttanen, S. Tyuryakov https://en.ilmatieteenlaitos.fi/accc-fasn2024*

4. ANNEXES

4.1. Announcement of the 6th ClimEd Training

Mastering Technologies of Massive Open Online Courses (MOOC) Development for the General Public

ClimEd 6th Training (onsite/hybrid)

February 10–February 14, 2025
Tartu, Estonia

ANNOUNCEMENT

Erasmus+ ClimEd Project

"Multilevel Local, Nation- and Regionwide Education and Training in Climate Services, Climate Change Adaptation and Mitigation"
(619285-EPP-1-2020-1-FI-EPPKA2-CBHE-JP)
http://climed.network

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

Aim

The ClimEd Trainings are focused on training the faculty staff at the ClimEd partner institutions in advanced educational and information-and-communication technologies for building a flexible, multi-level, integrated, practice-based education system in the field of Climate Services, Climate Change Adaptation and Mitigation.

Training Programme

Lecturing (Blocks - B1, B2, B3, B4)

B1 (Mon) – *Foundations of MOOC Development for the General Public.* Introducing participants to the principles and processes behind designing Massive Open Online Courses (MOOCs). This block covers foundational concepts, including sustainability-focused competencies, advanced educational technologies, and practical applications for public engagement through MOOCs.

B2 (Tue) – *Practical Techniques and Tools for MOOC Creation.* This block emphasizes hands-on workshops and lectures on developing MOOCs using innovative tools such as H5P and Canva. Participants will explore practical examples and learn to design sustainability-driven MOOCs with engaging content and materials.

B3 (Wed) – *Enhancing MOOC Engagement and Learning Strategies.* Focused on interactive elements such as video editing, assessment strategies, and marketing techniques to attract and retain learners. Participants will engage in practical sessions, leveraging educational technologies to maximize course effectiveness.

B4 (Thu) – *Presentations and Collaborative Feedback for MOOC Success.* Participants will present their group work, receive critical feedback, and discuss strategies for deploying MOOCs to the public. The block concludes with completion ceremonies and reflections on applying MOOC tools and methods to enhance online education.

Organizing Committee

Kalev Sepp, Volha Kaskevich, Anton Shkaruba, *Estonian University of Life Sciences, Tartu, Estonia.*
Hanna Lappalainen, Svyatoslav Tyuryakov, Alexander Mahura, *University of Helsinki, Helsinki, Finland.*
Inna Khomenko, Valeriya Ovcharuk, *Odesa I.I. Mechnikov National University, Odesa, Ukraine.*

Lecturers

Anna Beitane
Manager of Online Learning and Continuing Education Projects **(Johan Skytte Institute of Political Studies, University of Tartu, Estonia). Lectures on "MOOC Design Process from A to Z" and Workshop on "Practical Tasks for MOOC Design."** Anna specializes in the development and implementation of online and blended courses with extensive expertise in e-course quality assurance.

Dr. Rami Ratvio
University Lecturer in the Department of Education **(University of Helsinki, Finland). Lecture on "Development of**

MOOC Content on Sustainability Competencies." Rami focuses on fostering skills to address sustainability challenges through MOOCs, integrating sustainability principles into educational frameworks.

Dr. Jon Xavier Olano Pozo
Researcher in Climatology and Sustainability **(Institut Universitari de Recerca en Sostenibilitat, Canvi Climàtic i Transició Energètica, Universitat Rovira i Virgili, Spain). Lectures on "Introduction to Practical MOOC Development: Crop Calendar Case" and "Advanced Techniques in MOOC Development Using H5P and Canvas for MOOC Design."** Jon brings practical insights from his research and teaching experience in MOOC development.

Dr. Laura Riuttanen
University Lecturer at the Institute for Atmospheric and Earth System Research (INAR) **(University of Helsinki, Finland). Lecture on "Designing MOOCs for Sustainability Education."** Laura emphasizes holistic approaches to education to foster understanding and action on climate change and sustainability topics.

Veljo Kabin
Educational Technologist **(Department of Academic Affairs, Estonian University of Life Sciences, Estonia). Lectures on "Content and Presentation of Learning Materials in MOOCs," "Interactive Elements in Creating MOOCs and Video Editing Tools," and "Assessment Strategies and Learner Engagement: Marketing and Attracting Learners."** Veljo is an expert in enhancing e-learning experiences through interactive course design.

Organizers

International Erasmus+ ClimEd project (http://climed.network)
Estonian University of Life Sciences, Tartu, Estonia.
University of Helsinki, Helsinki, Finland.

Target audience

Teaching/ Research staff and postgraduates in educational and research disciplines

Selection criteria

Based on motivation letter (incl. why you need this training; how you use climatic information in your profession; how you plan to use such information in future; your commitment to training) & CV (max 2pages)

Registration deadline **1 January 2025**
Language English
Costs **no fee**

Please apply *(including a motivation letter and CV) from the web page:*
http://climed.network/events-climed-trainings-climed-training-6-online-application-form/

4.2. List of Participants of the 6th ClimEd Training

ClimEd Training 6 (onsite/ hybrid)

Mastering Technologies of Massive Open Online Courses (MOOC) Development for the General Public

February 10–February 14, 2025

List of Participants

N	Participant: Surname Name	University	Group
1.	Bereznytska Yuliia	KNUCA	F3
2.	Dyman Tetyana	BTNAU	F3
3.	Halych Yelyzaveta	ONU	F2
4.	Hrinchenko Yurii	ONU	F3
5.	Karpuk Lesia	BTNAU	F2
6.	Semerhei-Chumachenko Aina	ONU	F1
7.	Smitiukh Andrii	ONU	F3
8.	Stavetska Ruslana	BTNAU	F1
9.	Tkachenko Tetiana	KNUCA	F1
10.	Tytarova Olena	BTNAU	F2
On-line			
11.	Antonik Iryna	ICSA	F14
12.	Barsukova Olena	ONU	F5
13.	Borovska Halyna	ONU	F7
14.	Bulat Nataliia	ONU	F11
15.	Demianenko Olena	BTNAU	F13
16.	Diadin Dmytro	BekNU	F8
17.	Dolhova Kateryna	TSKNU	F4
18.	Filipova Larysa	BTNAU	F8
19.	Hornovska Svitlana	BTNAU	F10
20.	Hrechko Alina	VNKNU	F15
21.	Khandogina Olga	BekNU	F6
22.	Kiptenko Viktoriia	TSKNU	F11
23.	Klieshch Anastasiia	VNKNU	F14
24.	Kovalova Anastasiia	KNUCA	F8
25.	Kravchenko Maryna	KNUCA	F11
26.	Kushchenko Liliia	ONU	F8
27.	Kustovska Oksana	TSKNU	F13
28.	Kyrnasivska Nataliia	ONU	F5
29.	Lykhovyd Pavlo	ICSA	F9
30.	Mykhailenko Tetiana	TSKNU	F15
31.	Mostypan Olena	BTNAU	F12
32.	Nadtochii Pavlo	BTNAU	F4
33.	Nedostrelova Larysa	ONU	F6
34.	Okolovych Iryna	TSKNU	F12
35.	Oleshko Olena	BTNAU	F15
36.	Pavlichenko Andrii	BTNAU	F10
37.	Perebynos Alona	KNUCA	F7
38.	Pervak Mykhailo	ONMU	F7
39.	Prokofiev Oleg	ONU	F12
40.	Savchenko Antonina	KNUCA	F7
41.	Sereda Andriy	LPNU	F10
42.	Shparaga Tetiana	TSKNU	F14

43.	Shepel Victoriya	NUOMA	F5
44.	Shynkarenko Ulyana	TSKNU	F14
45.	Snizhko Sergiy	TSKNU	F9
46.	Smyrnov Ihor	TSKNU	F4
47.	Strutynska Yuliya	BTNAU	F13
48.	Talalayev Kostyantyn	ONMU	F6
49.	Titarenko Oksana	BTNAU	F11
50.	Tymchuk Ivan	LPNU	F5
51.	Vakula Bohdan	BTNAU	F12
52.	Vasylenko Lesya	KNUCA	F13
53.	Voloshkina Olena	KNUCA	F6
54.	Volvach Oksana	ONU	F10
55.	Zadorozhna Ruslana	BTNAU	F9
56.	Zaika Nataliia	BTNAU	F9
57.	Zhygailo Olena	ONU	F4
58.	Zhygailo Taras	ICSA	F15

ONU - Odesa I.I. Mechnikov National University (Odessa, Ukraine)
KNUCA - Kyiv National University of Construction and Architecture (Kyiv,Ukraine)
BekNU - O. Beketov National University of Urban Economy (Kharkiv, Ukraine)
LPNU - Lviv Polytechnic National University (Lviv, Ukraine)
BTNAU - Bila Tserkva National Agrarian University (Bila Tserkva, Ukraine)
ONMU - Odesa National Medical University (Odessa, Ukraine)
NUOMA - National University Odessa Maritime Academy (Odessa, Ukraine)
TSKNU - Taras Shevchenko National University of Kyiv (Kyiv, Ukraine)
ICSA - Institute of Climate-Smart Agriculture NAAS (Odessa region, Ukraine)
VNKNU - V. N. Karazin Kharkiv National University (Kharkiv, Ukraine)

4.3. 6th ClimEd Training Certificates

Eesti Maaülikool
Estonian University of Life Sciences

CERTIFICATE

NO 5.1-16/1074-3

hereby confirms that

Yelyzaveta Halych

has attended and successfully completed
the Erasmus+ **ClimEd Training**
on

Mastering Technologies of Massive Open Online Courses (MOOC) Development for the General Public

provided in the period from February 10 to 14, 2025
at the Estonian University of Life Sciences
(register code 74001086, Fr. R. Kreutzwaldi 1, 51006 Tartu, EHIS code 17423?)

VOLHA KASKEVICH
CO-HEAD OF TRAINING

KALEV SEPP
CO-HEAD OF TRAINING

ARET VOOREMAE
DIRECTOR OF INSTITUTE

Tartu, February 14th 2025

Erasmus+ ClimEd Project
"Multilevel Local, Nation- and Regionwide Education and Training in Climate Services, Climate Change Adaptation and Mitigation"
(619285-EPP-1-2020-1-FI-EPPKA2-CBHE-JP)
http://climed.network

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

ClimEd

Appendix to the certificate no 5.1-16/1074-3

Yelyzaveta Halych
has passed the course

Mastering Technologies of Massive Open Online Courses (MOOC) Development for the General Public

at the Estonian University of Life Sciences from 10.02.2025 to 14.02.2025,
PK.1885 (3 ECTS)

ClimEd Training included:

Contact Hours (Lectures & Workshops)	**28 hours**
Lectures: Introduction to MOOC Development, Content Creation, Digital Tools, and Learner Engagement	14 hours
Workshops: MOOC Design, H5P & Moodle Integration, Interactive Learning Strategies	6 hours
Group Work (MOOC micro-course development): Hands-on application of concepts into an actual course design	8 hours
Independent Study and Preparation	**30 hours**
Pre-training reading & preparation on MOOC methodologies	10 hours
Post-training individual refinement of MOOC components	12 hours
Reviewing best practices in MOOC structure and multimedia integration	8 hours
Assessment and Final Deliverables	**32 hours**
Multiple-choice theoretical assessment (10 questions)	2 hours
Group work: MOOC micro-course development (content, structure, assessments)	24 hours
Presentation of MOOC prototypes and peer review feedback	6 hours

Total workload: 90 hours

Obtained Competencies/ Training Learning Outcomes:

-Understanding of what a MOOC is and how it differs from a traditional e-course;
-The ability to design the MOOC development process, from idea generation to course implementation;
-The ability to apply techniques for developing MOOCs using platforms like Moodle and Canvas;
-The ability to create and present learning materials and interactive content using H5P;
-The ability to use assessment and feedback tools for MOOCs;
-Presented their group work, which involves creating a micro-course for a MOOC.

Lecturers:

Anna Beitane
Manager of Online Learning and Continuing Education Projects (Johan Skytte Institute of Political Studies, University of Tartu, Estonia)
Dr. Rami Ratvio
University Lecturer in the Department of Education (University of Helsinki, Finland)
Dr. Jon Xavier Olano Pozo
Researcher in Climatology and Sustainability (Institut Universitari de Recerca en Sostenibilitat, Canvi Climàtic i Transició Energètica, Universitat Rovira i Virgili, Spain)
Dr. Laura Riuttanen
University Lecturer at the Institute for Atmospheric and Earth System Research (INAR) (University of Helsinki, Finland)
Veljo Kabin
Educational Technologist (Department of Academic Affairs, Estonian University of Life Sciences, Estonia)

ARET VOOREMAE
DIRECTOR OF INSTITUTE

Tartu, February 14th 2025