

## Newsletter 5 / April 2022 - March 2023

Erasmus+ Capacity Building of Higher Education

**Synergy of educational, scientific, management and industrial components for climate management and climate change prevention/ CLIMAN**

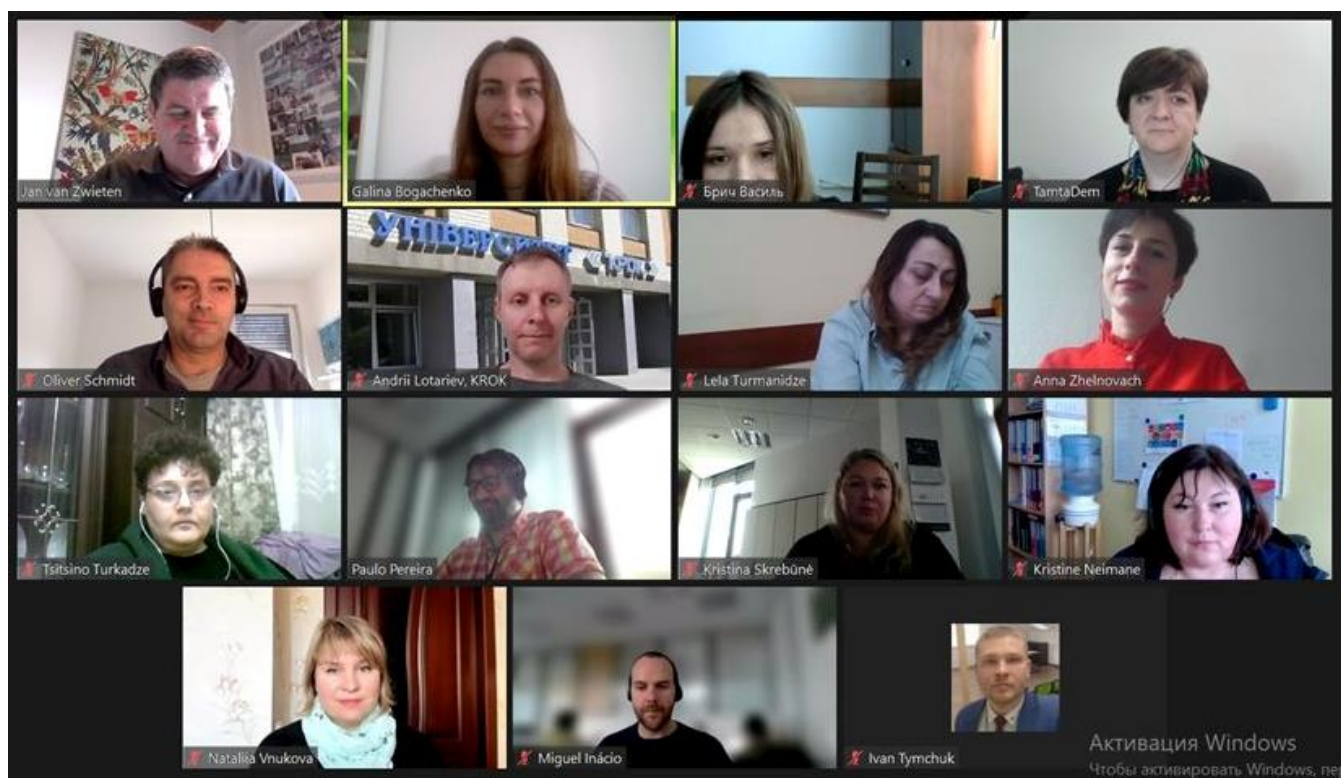
619119-EPP-1-2020-1-NL-EPPKA2-CBHE-JP

### NEWSLETTER 5

April 2022 - March 2023

In this issue you will find news and updates of all partners:

- Article "The war in Ukraine is a human tragedy. It's also an environmental disaster"
- International Highlight Event dissemination of project results Erasmus + "CLIMAN"
- Online Management Meeting



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**Synergy of educational, scientific, management and industrial components for climate management and climate change prevention/ CLIMAN 619119-EPP-1-2020-1-NL-EPPKA2-CBHE-JP**

## **The war in Ukraine is a human tragedy. It's also an environmental disaster.**

[Article from the Washington Post](#)

Since the war began more than a year ago, tens of thousands of Ukrainian soldiers have been killed or wounded on the battlefield while the country's civilians have contended with a near-constant bombardment by missiles and drones. But the Russian invasion has created a lower-profile killer as well — one that could haunt Ukrainians for years, if not decades, scientists say. The war has scarred Ukraine's natural environment — polluting its rivers and lakes, contaminating its soil, eviscerating its forests — a circumstance that experts fear could lead to a long-term increase in cancers and other illnesses among civilians. The attack on the oil depot here is just one of the thousands of reported environmental disasters across the country that Ukrainian and international scientists are in the earliest stages of documenting as the conflict continues. Even before the war, Ukraine faced challenges from highly polluting industries. Now, experts say, the problem is immeasurably worse.



The Ukrainian government says that so far, the war has led to more than \$51 billion of environmental damage. Many experts say that the figure is, at best, an approximation, but that there is little doubt that the ecological impact will be felt for years in myriad ways.

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In cities that have been hit by airstrikes, the chemicals used to extinguish fires are leaching into the groundwater, and asbestos and other pollutants from the rubble of destroyed buildings are cleanup hazards. Across Ukraine, the electrical transformers, and substations that Russia has been targeting are leaking heavy fuel oil and carcinogenic chemicals.

**“The most comparable impact would probably be the Second World War or Vietnam. The intensity of the bombing is totally different from other modern wars; each day, it’s missile after missile after missile,”** said **Paulo Pereira**, a professor at **Mykolas Romeris University** in Lithuania.

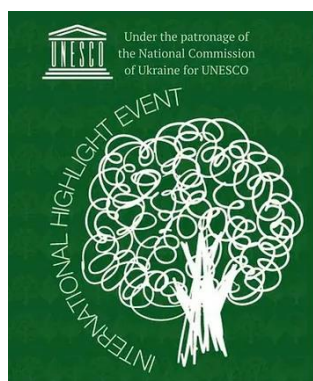
The threat to human health has alarmed scientists because of the scale of the urban destruction. Dozens of cities and towns in Ukraine’s industrial heartland in the east have been pulverized by shelling, with many entirely leveled into wasteland and some even rendered uninhabitable. In Izyum, in the country’s northeast, chunks of buildings struck by artillery months earlier remained strewn on the ground for miles, on city block after city block. The formerly populous coastal city of Mariupol also was shredded by persistent bombing campaigns as Russia seized it last year.

Moreover, as bad as the environmental damage is within Ukraine’s cities, they are far safer to walk than what lies beyond. Throughout Ukraine, policymakers say they fear the long-term consequences of the war’s toll on the country’s forests, farmland, soil, and marine life — all of which is subject to the intense artillery fighting that has hit the rest of the country.

The war also is destroying significant portions of the country’s fertile farmland, which historically has been crucial to the world’s food system. It used to feed the entire Soviet Union. More recently, it supplied 10 percent of global wheat exports. Ukraine’s Institute for Soil Science and Agrochemistry Research estimates that the war has degraded at least 40,000 square miles of agricultural land, it said in an email.



## INTERNATIONAL HIGHLIGHT EVENT: Greening of the modern educational space



International conference

Greening of  
the modern  
educational  
space



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



ERASMUS+ project "Synergy of educational, scientific, management and industrial components for climate management and climate change prevention"  
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Kharkiv National Automobile and Highway University



### *"Oxford principles" of geoengineering management to minimize the risks of its application :*

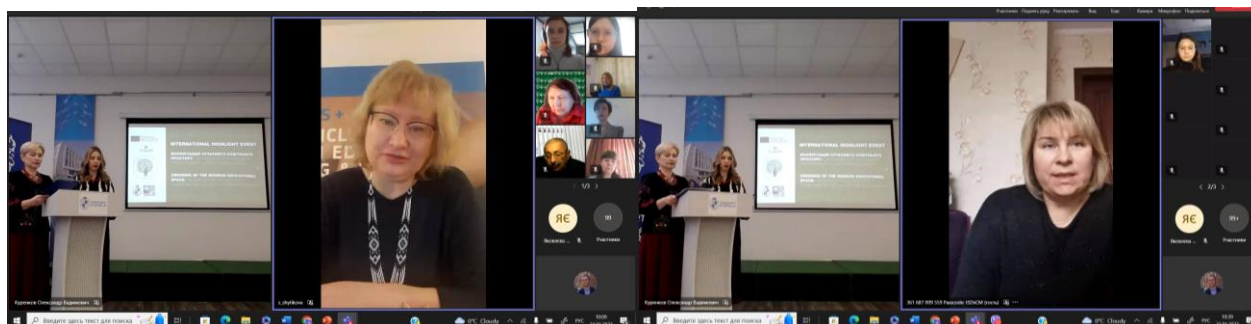
- Principle 1: Geoengineering should be regulated as a public good.
- Principle 2: Public participation in geoengineering decision-making.
- Principle 3: Disclosure of geoengineering research and open publication of results.
- Principle 4: Independent impact assessment.
- Principle 5: Pre-deployment management.

January 31 - February 1, 2023, the International Highlight Event on Dissemination of Project Results «Greening modern educational space: basic vectors innovative transformations and their ways implementation» within Erasmus + project "Synergy of educational, scientific, managerial and industrial components for climate management and climate change prevention / CLIMAN", organized by "KROK" University and KEPIT- college of KROK University.

The event was held under the patronage of the National Commission of Ukraine for UNESCO, the Ministry of Education and Science of Ukraine, as well as the International Project "Associated Schools of UNESCO" (National coordinator of the UNESCO Associated Schools network in Ukraine).

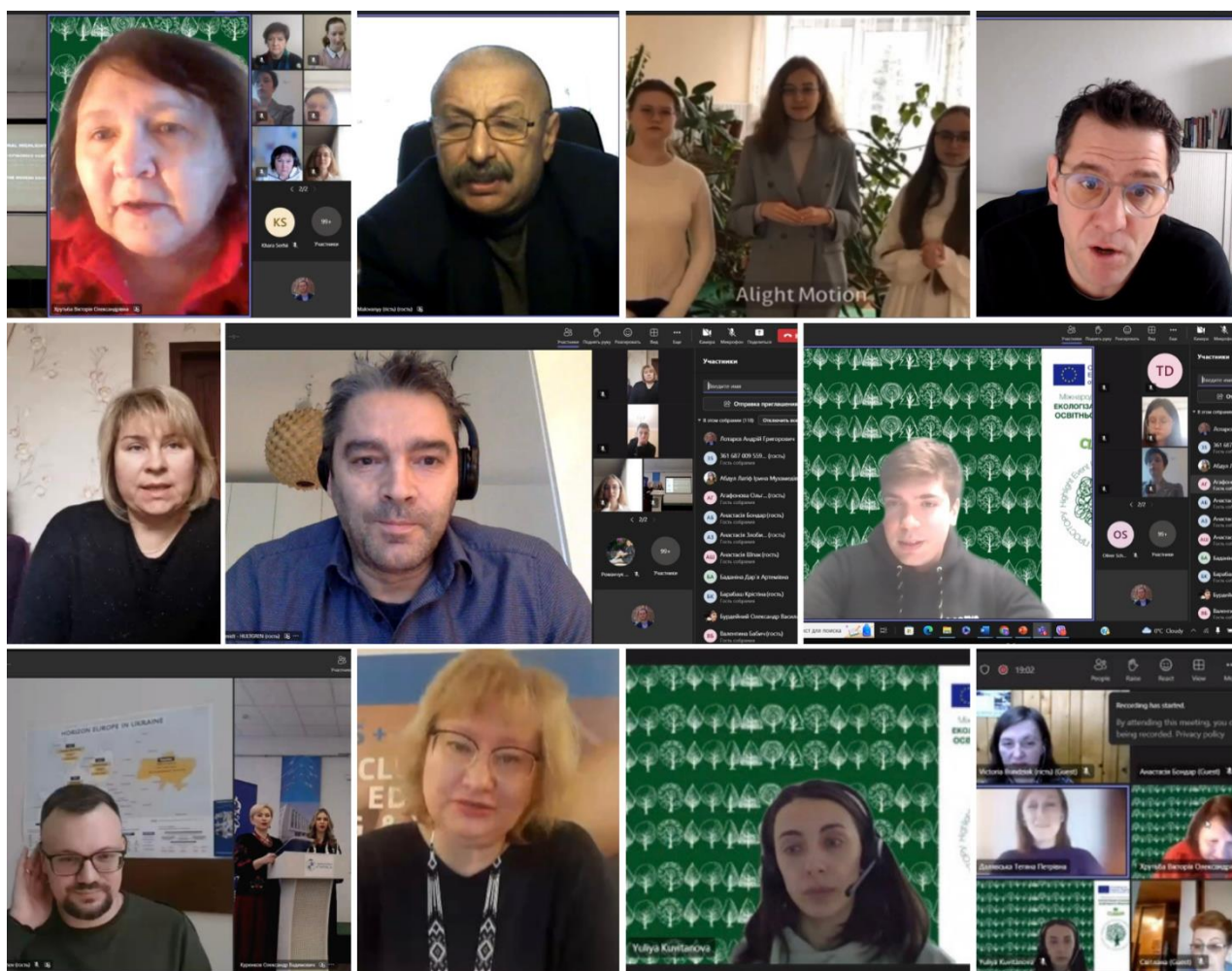
The event was attended by more than 200 participants from the international and Ukrainian educational community, government officials, representatives of national nature reserves and parks, civil society and business institutions, researchers and environmental experts, students, as well as pupils from 21 participating schools of the International Project "Associated Schools UNESCO in Ukraine".

Project teams of CLIMAN consortium: Netherlands Business Academy, the Netherlands; HTW Berlin- University of Applied Sciences, Germany; Kharkiv National Automobile and Highway University, Ukraine; National University "Lviv Polytechnic", Ukraine; Akaki Tsereteli State University, Georgia; Shot Rustaveli Batumi State University, Georgia; Consulting company "Hultgren", Germany were the key speakers, lecturers at the workshops.



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It is also important to note active partner support from: Hochschule für sustainable Entwicklung Eberswalde ( Eberswalde University for Sustainable Development), Germany; Public organization "Ecodiya for Environmental Initiatives", Ukraine; Ecological Club of Like-minded People "LOTOS", Ukraine; European Wildlife Society; IT company " SoftServe ", Ukraine; Carpathian Biosphere Reserve, Ukraine; " GlobalLogic " company, Ukraine; KPNZ "Kyiv Small Academy of Sciences of Pupil Youth", Ukraine; National Nature Park "Golosiivskyi", Ukraine; National Nature Park "Guzulschyna", Ukraine; National University of Transport, Ukraine; Partner network "Education in the interests of sustainable development"; Small grant programs of the UN Development Program of the Global Environmental Fund; Career Development Center of "KROK" University, Ukraine; Chernobyl Radiation and Ecological Biosphere Reserve, Ukraine.



Inspiring words were addressed to the participants of the conference by:

Rector of "KROK" University, doctor of physical and mathematical sciences, professor Andrii KUCHKO;

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Director of National Erasmus+ office in Ukraine, coordinator of the European Union project "Network of national offices of the Erasmus + program and national teams of experts on reforming higher education"- Svitlana SHYTIKOVA;

Project coordinator of Erasmus + CLIMAN, rector of the Netherlands Business Academy- Prof. Jan van ZWIETEN;

General director of the directorate of European integration, budgeting and coordination of policies of the Ministry of Education and Science of Ukraine- Oleksandr PYZHOV;

Director of the Educational and Scientific Institute of International Education of "KROK" University, Candidate of Sciences in Public Administration- Andrii LOTARIEV .

The guests of the event, partners of the CLIMAN project also welcomed the participants of the event:

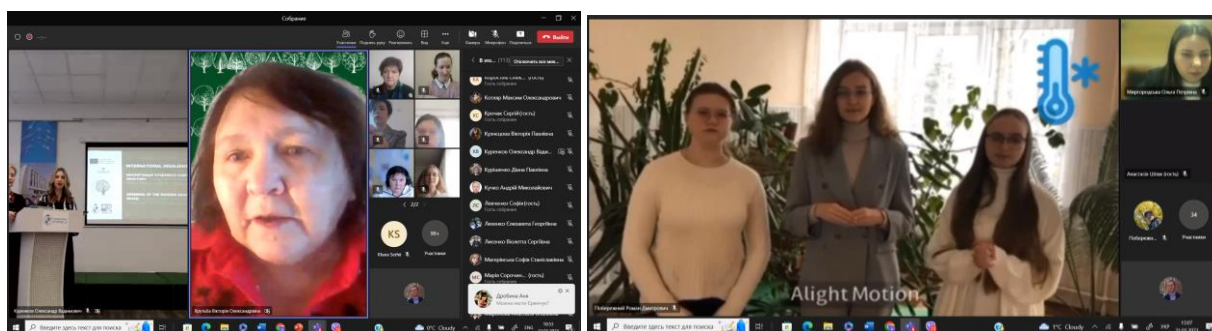
Head of the Department of Ecology of the Kharkiv National Automobile and Highway University, Doctor of Technical Sciences, Professor, Head of the UNESCO Department "Ecologically Clean Technologies"- Nataliya VNUKOVA ;

Head of the department "Ecology and balanced nature management" of the National University "Lviv Polytechnic",- Doctor of Technical Sciences, Professor Myroslav MALYOVANYI;

Doctor of science, professor of HTW Berlin – University of Applied Sciences,- Florian KOCH;

Head of Project department Turiba University, Latvia – Mrs. Kristine NEIMANE;

Director of the Hultgren Consulting Company, Germany – Oliver SCHMIDT.



Institutions and stakeholders - partners of the event, who systematically and constantly support the educational sphere and involve educators and young people in their activities, expressed their wishes for high-quality interaction and cooperation. In particular:

Member of the Youth Group of the Small Grants Program of the UN Development Program of the Global Environmental Fund, the Partnership Network "Education in the Interest of Sustainable

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Development",- Anastasia BONDAR;

Head of the department of ecological and educational work of the Carpathian Biosphere Reserve  
Carpathian Biosphere Reserve // Carpathian Biosphere Reserve,- Victoria BUNDZYAK;

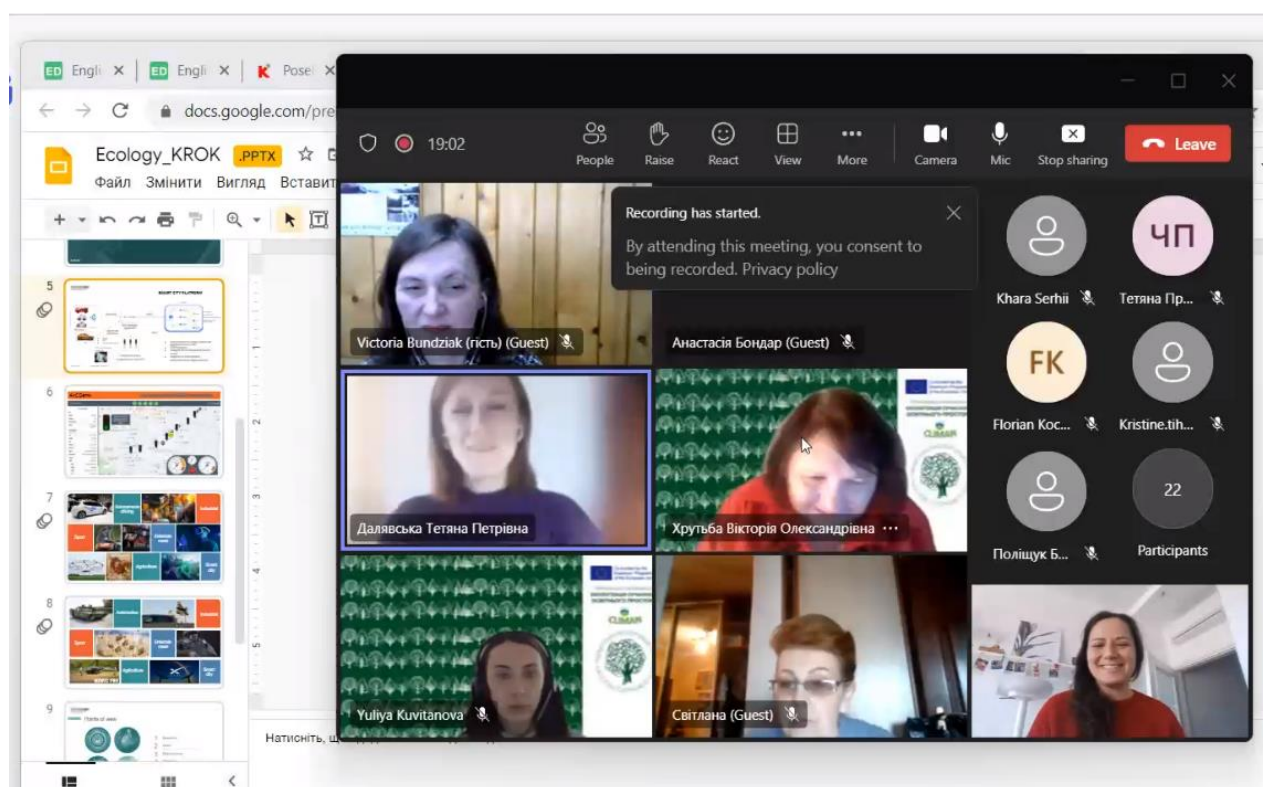
Employer Brand Specialist in SoftServe,- Roman KURYLENKO ;

Head of the sector of ecological and educational work, Chernobyl radiation and ecological  
biosphere reserve,- Tatyana PRYBORA ;

Energy policy expert , NGO " Ecodiya Center for Environmental Initiatives" -Anna RUTKOVSKA ;

Associate Engineering Manager of GlobalLogic- Victoria TARANYUK ;

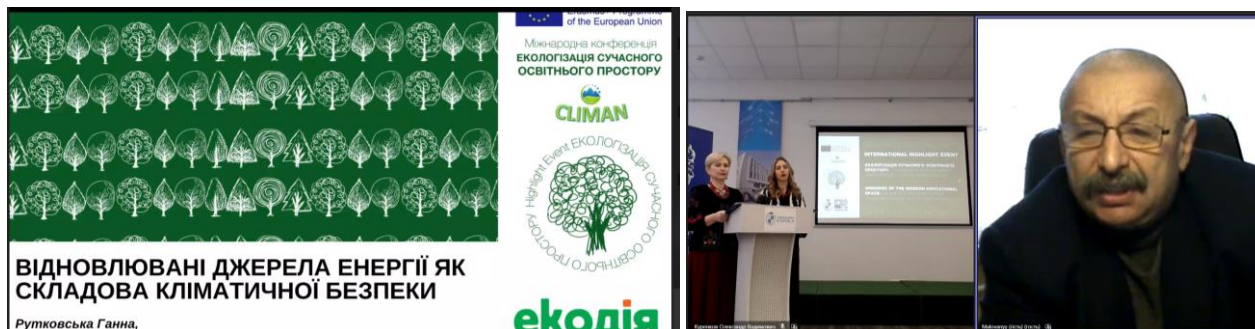
Head of the department of ecological and educational work of the National Nature Park  
"Golosiivskyi",- Serhiy KARA ;



Head of the Department of Ecology and Technologies of Environmental Protection of the National  
Transport University, Doctor of Technical Sciences,- Professor Victoria KHRUTBA ;

Head of the department of ecological and educational work of the National Nature Park  
"Guzulschyna",- Kateryna SHEVCHENKO.

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On the second day of International Highlight Event included lectures:

“GREEN PROJECT MANAGEMENT AS A MECHANISM OF THE DEVELOPMENT OF UKRAINE. INTERNATIONAL AND DOMESTIC EXPERIENCE” – by Victoria KHRUTBA, head of the Department of Ecology and Environmental Protection Technologies of the National Transport University, doctor of technical sciences, professor; member of the Scientific and Methodological Council of the Ministry of Education and Science of Ukraine; Corresponding member of the Transport Academy of Ukraine.

"MODERN TRANSFORMATION OF EDUCATION. ENVIRONMENTAL TREND" - Nataliya VNUKOVA, Head of the Ecology Department of the Kharkiv National Automobile and Road University, Doctor of Technical Sciences, Professor, Head of the UNESCO Department "Ecologically Clean Technologies".

“NUCLEAR DANGER: HOW TO SURVIVE AND SURVIVE”- Olena PARENKYUK, candidate of biological sciences, senior researcher at the Institute of Safety Problems of Nuclear Power Plants of the National Academy of Sciences of Ukraine.

Moreover, on February 1, the work of scientific and practical discussion panels with the participation of representatives of public, non-governmental organizations of Ukraine was organized, during which they presented their research and scientific works on climate management.

On the 1st panel, the participants of UNESCO schools in Ukraine spoke, on the 2nd - participants of the CLIMAN project as speakers, on the 3rd - students and high school students of UNESCO schools, on the 4th - participants-representatives of the production and educational community, on the 5th - (participants of the project CLIMAN as speakers, guarantors of educational programs of higher and professional pre-higher education.)

A lot of remarkable themes of the discussions were presented at the event:

“IMPROVEMENT OF AIR HUMIDITY IN SCHOOLS PREMISES; FOREST OF THE FUTURE”;

“YOUTH ENVIRONMENTAL MOVEMENT "YOUNG FOREST RANGERS" AND THEIR CONTRIBUTION TO ENVIRONMENTAL PROTECTION”;

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“ANALYSIS OF THE POSSIBILITIES OF FUNCTIONALITY OF THE CLIMATE MANAGEMENT CENTER "ENVIRONMENTAL GUARD" IN THE "OBOLON" NEC”;

“PROSPECTS OF ESTABLISHING EDUCATIONAL CENTERS ON CLIMATE CHANGE PREVENTION”;

“IMPLEMENTATION OF THE COMPETENCY APPROACH IN THE SYSTEM OF ENVIRONMENTAL EDUCATION IN THE "BOHODUHVIVSKY LYCEUM №1" SCHOOL OF BOHODUHVIVSKY CITY COUNCIL OF THE BOHODUHVIVSKY DISTRICT OF KHARKIV REGION”;

“CLIMATE CHANGE IN UKRAINE: CAUSES, CONSEQUENCES, OPPOSITION”;

“PROJECTS OF IMPLEMENTATION AND USE OF ENERGY-EFFICIENT TECHNOLOGIES IN FARMS OF THE KYIV REGION”;

“ENVIRONMENTAL INNOVATION - PROSPECTS AND SHORTCOMINGS IN THE CONTEXT OF CLIMATE MANAGEMENT”;

“CLIMATE MANAGEMENT - SCIENTIFIC, PRACTICAL AND METHODOLOGICAL ASPECTS OF IMPLEMENTATION. EXPERIENCE AND PROSPECTS”;

“CLIMATE ENGINEERING TECHNOLOGIES – GLOBAL AND REGIONAL RISKS AND APPLICATION PROSPECTS”;

“STORMWATER MANAGEMENT IN URBAN AREAS AS AN IMPORTANT FACTOR OF ENVIRONMENTAL SAFETY IN THE FACE OF GLOBAL CLIMATE CHANGE”;

“THE INFLUENCE OF ECOLOGIZATION ON THE MODERN EDUCATIONAL PROCESS”;

“INTEGRATION OF SUSTAINABILITY TOPIC IN BUSINESS AND TOURISM EDUCATION”;

“MEASURING THE SUSTAINABILITY OF BUILDINGS: AN EDUCATIONAL COOPERATION PROJECT ON SUSTAINABILITY CERTIFICATION”;

“PECULIARITIES OF TEACHING THE DISCIPLINE OF CLIMATE MANAGEMENT TO STUDENTS OF LVIV POLYTECHNIC”;

“PECULIARITIES OF TEACHING THE DISCIPLINE OF CLIMATE MANAGEMENT TO STUDENTS OF LVIV POLYTECHNIC”;

“ADAPTATION TO CLIMATE CHANGE: STRATEGY, CONSEQUENCES AND MEASURES OF ADAPTATION”;

IHE involved about 200 participants online on the first day and about 170 participants on the second day of official events.

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As part of the International Highlight Event of the CLIMAN project, promotional materials were developed by KROK University team and distributed among the participating partners, namely T-shirts, shopping bags, pens, pencils, folders for documentation.

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## Online Management Meeting

21 March 2023



**21 March 2023**, in the frameworks of the EU Erasmus+ project CLIMAN/ "Synergy of educational, scientific, management and industrial components for climate management and climate change prevention", Online Management Meeting was organized.

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The partners discussed project's updates, issues, and tasks; considered the opportunity to involve one more partner to the consortium, moreover, the meetings were planned, including trainings in the Netherlands and Lithuania, and summer school in Lviv. Also, consortium discussed future project activities (host universities, including all partners).

The quality aspects and project results were presented by participants.