

Application

Programme	Erasmus+
Action Type	KA220-HED - Cooperation partnerships in higher education
Call	2023
Round	Round 1

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Context

Field	Higher Education			
Project Title	Supporting Ukraine's Next Generation of Scholars: A Project for Building University Capacity and Enhancing PhD Education			
Project Acronym	SUNNY			
Project Start Date (dd/mm/yyyy)	Project total Duration	Project End Date (dd/mm/yyyy)	National Agency of the Applicant Organisation	Language used to fill in the form
01/09/2023	36 months	31/08/2026	CZ01 - Dům zahraniční spolupráce (DZS) Centre for International Cooperation in Education	English
Project lump sum			400 000,00 €	

For further details about the available Erasmus+ National Agencies, please consult the following page: [List of National Agencies](#).

Project Summary

Please provide a short summary of your project. Please be aware that this section (or parts of it) may be used by the European Commission, Executive Agency or National Agencies in their publications. It will also feed the Erasmus+ Project Results Platform.

Be concise and clear and mention at least the following elements: context/background of project; objectives of your project; number and profile of participants; description of activities; methodology to be used in carrying out the project; a short description of the results and impact envisaged and finally the potential longer-term benefits. The summary will be publicly available in case your project is awarded.

In view of further publication on the Erasmus+ Project Results Platform, please also be aware that a comprehensive public summary of project results will be requested at report stage(s). Final payment provisions in the contract will be linked to the availability of such summary.

Objectives: What do you want to achieve by implementing the project?

All project deliverables are planned, in principle, to be used after the end of the project. In terms of the development of the involved organisations in the long term, for some deliverables the natural limitation of the life span is the duration of the aggression against Ukraine. For example, once the electricity supply and Internet connection of Ukrainian universities will be secure long-term, CZU will start to transfer the SUNNY ICT system to OSENU, while until then it will continue to use it

Implementation: What activities are you going to implement?

Other deliverables, such as new curricula, will stay at Ukrainian universities at least in a medium-term perspective, because such expertise will be needed long time ahead due to the enormous scale of the war devastation. It is also the reason why such curricula (and PhD research topics) will keep their relevance, and why they will be maintained and developed further by Ukrainian universities. SUNNY partners are committed to look for other cooperation formats on these topics; however, we are als

Results: What project results and other outcomes do you expect your project to have?

Deliverables such as organisational arrangements for students' and supervisors' access to network resources of EU partners will remain relevant regardless of the course of the war and will also be important in the context of postwar recovery. The EU partners will continue to support me as part of their commitment to Ukrainian academics. The excellence of this project by the joint efforts of a leading educational institution in cooperation with EU partner organisations.

Applicant organisation

OID	Legal name	Country	Region	City	Website
E10209207	Česká zemědělská univerzita v Praze	Czech Republic	Hlavní město Praha	Praha - Suchbát	https://www.czu.cz/en/

Partner organisations

OID	Legal name	Country	Region	City	Website
E10175429	V. N. Karazin Kharkiv National University	Ukraine	Ukraine	Kharkiv	http://www.univer.kharkov.ua
E10208772	EESTI MAAILIKOOL	Estonia		TARTU	www.emu.ee
E10208672	UNIVERSITA DEGLI STUDI DI CAMERINO	Italy	Marche	CAMERINO	www.unicam.it
E10167368	Odessa State Environmental University	Ukraine	Ukraine	Odessa	www.odeku.edu.ua
E10174056	SUMY STATE UNIVERSITY	Ukraine	Ukraine	SUMY	http://www.sumdu.edu.ua
E10330593	Institute of Ecology of the Carpathians Natayaal Academy of Ukraine	Ukraine		Lviv	

Workpackages summary table

Please note that it is recommended to split your projects in a maximum of 5 work packages, including the one on project management.

In this section, please do not add the work package project management already included in the previous section.

Work package id	Title	Number of activities	Grant (EUR)
1	Project Management		49 000,00
2	ICT and organisational solutions for doctoral studies	4	110 000,00
3	Curriculum contents and research addressing the preparedness to and aftermath of the war	2	76 000,00
4	Introduction of Innovative ICT and Organisational Solutions	2	65 000,00
5	Dissemination, Exploitation and Stakeholder engagement	3	100 000,00
Total			400 000,00

Project budget summary

This section provides a summary of the estimated project budget. The table is automatically completed taking into account the described work packages and their estimated cost.

Budget Items	Allocated amount (EUR)
Work package n°1 'Project Management'	49 000,00
Work package n°2 - ICT and organisational solutions for doctoral studies	110 000,00
Work package n°3 - Curriculum contents and research addressing the preparedness to and aftermath of the war	76 000,00
Work package n°4 - Introduction of Innovative ICT and Organisational Solutions	65 000,00
Work package n°5 - Dissemination, Exploitation and Stakeholder engagement	100 000,00
Total	400 000,00

Distribution of the grant amount among participating organisations

WP	Coordinator (EUR)	Partner 1 (EUR)	Partner 2 (EUR)	Partner 3 (EUR)	Partner 4 (EUR)	Partner 5 (EUR)	Partner 6 (EUR)	Total (EUR)
Work package n°1 'Project Management'	19 000,00	5 000,00	5 000,00	5 000,00	5 000,00	5 000,00	5 000,00	49 000,00
Work package n°2 - ICT and organisational solutions for doctoral studies	35 000,00	7 000,00	20 000,00	15 000,00	11 000,00	11 000,00	11 000,00	110 000,00
Work package n°3 - Curriculum contents and research addressing the preparedness to and aftermath of the war	10 000,00	10 000,00	30 000,00	7 000,00	7 000,00	7 000,00	5 000,00	76 000,00
Work package n°4 - Introduction of Innovative ICT and Organisational Solutions	5 000,00	5 000,00	10 000,00	8 000,00	8 000,00	20 000,00	9 000,00	65 000,00
Work package n°5 - Dissemination, Exploitation and Stakeholder engagement	24 000,00	12 000,00	12 000,00	20 000,00	10 000,00	10 000,00	12 000,00	100 000,00
Total	93 000,00	39 000,00	77 000,00	55 000,00	41 000,00	53 000,00	42 000,00	400 000,00
Project lump sum (EUR)								400 000,00

Participating Organisations

To complete this section, you will need your organisation's identification number (OID). Since 2019, the Organisation ID has replaced the Participant Identification Code (PIC) as unique identifier for actions managed by the Erasmus+ National Agencies.

If your organisation has previously participated in Erasmus+ with a PIC number, an OID has been assigned to it automatically. In that case, you must not register your organisation again. Follow this link to find the OID that has been assigned to your PIC: [Organisation Registration System](#)

You can also visit the same page to register a new organisation that never had a PIC or an OID, or to update existing information about your organisation.

Applicant - Česká zemědělská univerzita v Praze (E10209207 - CZ)

Organisation ID	Legal name	Country
E10209207	Česká zemědělská univerzita v Praze	Czech Republic

Applicant details

Legal name	Česká zemědělská univerzita v Praze
Country	Czech Republic
Region	Hlavní město Praha
City	Praha - Suchbát
Website	https://www.czu.cz/en/

Profile

Is the organisation a public body?	Yes
Is the organisation a non-profit?	Yes
Type of Organisation	Higher education institution (tertiary level)

Accreditation

Accreditation Type	Accreditation Reference
Erasmus Charter for Higher Education	CZ PRAHA02

Background and experience

Please briefly present the organisation (e.g. its type, scope of work, areas of activity and if applicable, approximate number of paid/unpaid staff, learners).

Czech University of Life Sciences Prague (CZU) is a public university (according to Act No. 111/1998 Coll. on universities). CZU is one of leading educational and research centres for agrarian sector, food, forestry, wood processing, environment and ecology, economics and management, informatics, rural and regional development in the Czech Republic. It consists of six faculties (Agrobiology, Food & Natural Resources; Economics & Management; Engineering; Environmental Sciences; Forestry & Wood Sciences; Tropical AgriSciences) and one institute (Education & Communication). CZU offers bachelor, master and doctoral education for about 18,000 students (incl. about 3,000 international students from more than 100 countries) in various areas of bioeconomy and related sectors. Total number of paid employees – academic employees is around 1700. At Faculty of Tropical AgriSciences (FTA) it is 32 academic employees, with 59% of female employees with 12% of foreign citizenship. Study programs address the whole agri-food chain, forestry (incl. agri-forestry) with special interest in mountain areas with their value chains, but also leisure activities related to nature (e.g. horse breeding, dog breeding or game management) or rural development. Programs with education in economics and management or cultural studies are in great demand. The university provides also education in information science, ecology and environmental studies, utilization of natural resources, landscape protection and landscape architecture, spatial planning or technologies used in life sciences (agriculture, food and forestry). A special segment of education is represented by programs in tropical agriculture and in education. About one third of the study programs is taught in English with more than 2,500 students involved. Research activities of the university target the focus areas of the faculties under the umbrella of bioeconomy. CZU is also founding member of Bioeconomy Platform of the Czech Republic – within this platform, several events related to the carbon neutrality and carbon neutral agriculture were held. What needs to be mentioned as well, that CZU is actively involved in the carbon footprint from research points of view, but as well from point of “showing the good practice” via regularly calculating carbon footprint of the university and publishing those results in CSR report as well as reducing the carbon footprint aiming to the carbon neutrality in the future. The research areas are concentrated in 3 research pillars reflecting UN Sustainable Development Goals: healthy lifestyles (climate change, value chains, sustainability, cultural landscape, sustainable agriculture), healthy nutrition (agriculture and food production and food safety) and quality of life (nature protection, green technologies, entrepreneurship and rural development). The university promotes the cooperation with various actors in the society (ranging from business partners to public administration or NGOs). The university is a member of Euroleague for Life Sciences. CZU and especially FTA participates in international development aid projects, in cooperation with research organizations and universities in developing countries e.g. in Peru, Columbia, Indonesia, Angola, Egypt, Zambia, Senegal, Cambodia. In majority of those, main aim is to the structural capacity building, interconnected with issues related to the climate change as well as to the issues of carbon neutrality as well with active involvement in carbon sequestration issues via various research projects. Within last 10 years the university participated in more than 100 prestigious international research projects. There are also several research projects of excellence funded by the Czech government, which are implemented by the university, targeting climate change and its mitigation.

What are the activities and experience of the organisation in the areas relevant for this project? What are the skills and/or expertise of key persons involved in this project?

Czech University of Life Sciences Prague and Faculty of Tropical AgriScience in particular has significant experiences with implementation of various projects, including H2020 as well as Erasmus+ projects, including KA2 International Projects, among the latest ones can be mentioned COVIMO, where CZU is also a coordinator. In this projects COVIMO sees the COVID-19 crisis as an “opportunity window” for innovations in higher education practices. Or KA2 project Structural Capacities for Tackling Wicked Problems focusing on those problems, which are commonly hard to define and proposing a bottom-up approach in social-planning.

o Assoc. Prof. Dr. Hynek Roubík (male / responsible person from CZU) – Hynek is the Group leader of Biogas Research Team (Czech University of Life Sciences Prague, Faculty of Tropical AgriSciences) which deals not only with aspects related to biogas but also with waste management issues, and environmental issues in general. His experience with sustainable practices, sustainability and organic waste management and renewable energy resources goes back to 2012 where he started with his participation in the project Renewable Energy Resources for Rural Areas in Thua-Thien Hue Province, Vietnam. Since then, he coordinated or participated as key expert in numerous research and development projects throughout the world (i.e. Czechia, Vietnam, Cambodia, Ukraine, Uzbekistan, Georgia, Sri Lanka, Indonesia, Armenia and others). He does research in Environmental Sciences, Environmental and Ecological Engineering and Waste Management and is an editorial board member of several journals. He is author of over 60 peer-reviewed (indexed) research papers. Furthermore, he is the author of more than 15 international conference contributions. In addition, he was appointed as one of the youngest Associate professors in Czech Republic and he is the second youngest member of Czech Academy of Agricultural Sciences and Bioeconomy platform of Czech Republic. Furthermore, he is coordinator of CZU COVID-19 Response Team and CZU Food Security Research Team (focusing on implications of COVID-19). Apart from his expertise in the field of sustainability, Assoc. Prof. Dr. Hynek Roubík is coordinating AgriSciences Platform for Scientific Enhancement of HEIs in Ukraine, where the focus is enhancement of Ukrainian higher education institutions in key AgriSciences areas.

o Ing. Marek Jelínek (male) – Marek is from the Faculty of Tropical AgriSciences, Czech University of Life Sciences Prague and is a member of Biogas Research Team. He has experiences also from research and development projects from Vietnam, Ukraine and Moldova. His particular expertise is in carbon footprint, carbon emission reduction potential, with

special attention to biogas technology in addition to Solar, Wind and Biomass aspects.

o Ing. Viktoriia Chubur (female) - Viktoriia is a junior researcher at the Biogas Research Team, Faculty of Tropical AgriSciences, Czech University of Life Sciences Prague. Since 2020, she has been involved in the research focused on biogas technology implemented in the context of European countries. She is originally from Ukraine, where she was focusing on various environmental and biotechnology issues.

o Ing. Jan Staš (male) – Jan is a project manager at CZU, he will assist with the execution of the WPs and ensure that administrative part of the project is successfully implemented.

Action Type	As Applicant		As Partner or Consortium Member	
	Number of project applications	Number of granted projects	Number of project applications	Number of granted projects
Strategic Partnerships for higher education (KA203)	4	2	25	6
Partnerships for Digital Education Readiness (KA226)	1	1	0	0
Cooperation partnerships in school education	0	0	1	0
Cooperation partnerships in vocational education and training	2	2	5	2
Cooperation partnerships in adult education	1	1	2	0
Cooperation partnerships in higher education	3	0	9	8
Cooperation partnerships in youth	0	0	1	0
Newcomer organisation	No			
Less experienced organisation	No			
First time applicant	No			

Partner Organisations

Organisation ID	Legal name	Country
E10175429	V. N. Karazin Kharkiv National University	Ukraine
E10208772	EESTI MAULIKOOL	Estonia
E10208672	UNIVERSITA DEGLI STUDI DI CAMERINO	Italy
E10167368	Odessa State Environmental University	Ukraine
E10174056	SUMY STATE UNIVERSITY	Ukraine
E10330593	Institute of Ecology of the Carpathians Natajyaal Academy of Ukraine	Ukraine

V. N. Karazin Kharkiv National University (E10175429 - UA)

Partner organisation details

Legal name	V. N. Karazin Kharkiv National University
Country	Ukraine
Region	Ukraine
City	Kharkiv
Website	http://www.univer.kharkov.ua

Profile

Is the organisation a public body?	Yes
Is the organisation a non-profit?	Yes
Type of Organisation	Higher education institution (tertiary level)

Background and experience

Please briefly present the organisation (e.g. its type, scope of work, areas of activity and if applicable, approximate number of paid/unpaid staff, learners).

o V.N. Karazin Kharkiv National University (KGNU) is one of the oldest public HEIs in Eastern Europe, with a 218-year history. Today, the University has one of the largest university campuses in Ukraine with 23 Schools and Educational and Research Institutes (School of Biology; School of Geology, Geography, Recreation and Tourism; School of Economics; School of Foreign Languages; School of History; School of Computer Sciences; School of Medicine; School of Mathematics and Computer Sciences; Karazin Institute of Environmental Sciences; Education and Research Institute "Karazin Business School"; Education and Research Institute of Computer Physics and Energy; Education and Research Institute "School of Physics and Technology"; School of International Economic Relations and Travel Business; School of Psychology; School of Radiophysics, Biomedical Electronics and Computer Systems; School of Sociology; School of Physics; School of Philology; School of Philosophy; School of Chemistry; School of Law; and the Institute of International Education for Study and Research), that train specialists in over 200 majors, covering the whole range of modern classic university education. Before the war waged by Russia against Ukraine, KGNU had over 20000 students, 4000 of them were international students from 50 countries. About 440 full professors, over 1300 ass. professors and PhD students work in KGNU. At KGNU, there provided Doctorate and Post-Graduate studies in 29 research areas, including 101 Ecology, 103 Earth Sciences. It is ranked among the top HEIs in Ukraine (#541-550) with the largest number of foreign students, which makes the project's outputs particularly relevant.

Despite the ongoing war in Ukraine, KGNU has not been displaced and continues all its activities still being based in Kharkiv with university administration and all departments working from Kharkiv.

Its Internationalisation strategy is based on the University Development Program for 2019-2025, which defines priority areas of the University activities for further advanced integration into the international scientific and educational space. KGNU has successfully implemented 11 JM projects for the period from 2013 to 2022, and participated in 6 Erasmus + KA2. Also, it participates in 13 programs such as Horizon 2020, Horizon Europe, projects of the British Council, DAAD etc. with a total of 27 active international projects.

According to its Multilingual Strategy (2022), the university will become an open multilingual academic community able to provide its graduates with high-level proficiency of Ukrainian and English for better employability by 2027.

Developing distance format acquisition provides opportunities for inclusive education and life-long learning which goes in line with The Gender Strategy (2023-2033), based on KGNU's Code of Values. It ensures equal opportunities for all genders, promoting values of democracy, humanism, tolerance, and preventing gender-based discrimination in all areas of university educational space.

Institution (ACRONYM) is a KGNU

What are the activities and experience of the organisation in the areas relevant for this project? What are the skills and/or expertise of key persons involved in this project?

Karazin Institute of Environmental Sciences has considerable experience in implementing various projects, including TEMPUS projects, International Visegrad Fund projects, Erasmus+ projects. Among the latter is TEMPUS QANTUS «Qualifications Framework in Environmental Science at Ukrainian Universities» (2013-2017), "Improving education in the field of environmental management" (511390-TEMPUS-1-2010-1-SK-TEMPUS-JPCR) (2009-2012). In the projects of the International Visegrad Fund "Political and economic aspects of biodiversity conservation in V4 countries" (2016-2019) and "GAP - Green & Blue Infrastructure in Post-USSR Cities: Exploring Legacies and Connecting to V4 Experience" (2021-2022) Karazin University was coordinator. The Erasmus + projects INTENSE "Integrated Doctoral Program for Environmental Policy, Management and Technology for Ukraine, Mongolia and Vietnam" (2017-2020) Erasmus+ Jean-Monnet Modules program Instruments of the EU Environmental Policy (INENCY) (2018-2021) and 'Multilevel Local, National and Regionwide Education and Training in Climate Services, Climate Change Adaptation and Mitigation - ClimEd' (2020-2024). All projects was devoted to improving the system of higher education in Ukraine based on the experience of European countries.

o Assoc. Prof. Dr. Ganna Titenko (female/responsible person from KGNU) –Ganna is a Director of the Karazin Institute of Environmental Sciences, Assoc. Prof. of the Department of Ecology and Environmental Management, PhD (Geography). Her research interests include environmental impact assessment, environmental management, soil ecology, urban soil properties, and environmental geochemistry. She has work experience in 2 Tempus IV (QANTUS and JPCR) and 3 Erasmus+ (INTENSE, INENCY). She has more than 170 scientific and methodical works including textbooks: «Protected Area» and «Soil degradation in the world, the experience of its prevention and overcoming: education. Manual».

o Prof., Dr Nadiya Maksymenko (female / responsible person from KGNU) – Nadiya is a Head of the Department of Environmental Monitoring and Protected Area, DSc (Geography). She has experience in the field of environmental education, the author of 21 textbooks books, including: "Environmental management activity", "Rationing the anthropogenic load on the environment", "Landscape ecology", "Meteorology and climatology" etc. She is an expert of the National Agency for Quality Assurance of Higher Education in Ukraine. She has experience in 2 Tempus (QANTUS and JPCR) and 2 Erasmus+ (INTENSE, ClimEd) projects, was the coordinator of 2 projects of the International Visegrad Fund. She has more than 450 research and methodical papers, including 4 monographs.

o Prof., Dr Alla Nekos (female /responsible person from KGNU). Alla - head of the Department of Environmental Safety and

Environmental Education, DSc (Geography), professor. She is a specialist in the field of environmental education, remote methods of research in ecology, and food safety, has the "Excellence of Education of Ukraine" sign, the Acknowledgment of the National Academy of Pedagogical Sciences of Ukraine. She has work experience in TEMPUS projects. JPCR (2009-2012); QANTUS (2013-2017); Erasmus+ projects INTENSE (2017-2020). He is a member of the editorial board of WoS magazine. He has 490 publications (28 textbooks, including "General ecology and neoecology", "Human ecology", "Research methods in ecology", 10 monographs, 3 patents)

o Prof, Dr Andrii Achasov (male, responsible person from KGNU). Andrii - is a head of the Department of Ecology and Environmental Management, DSc (Agricultural). He is work in the areas of soil mapping, remote sensing of soil, GIS and DEM usage for soil research, preventing and managing soil erosion. Dr. Achasov's primary work at the current time is related to precise agriculture. In particular, he is working with combined analysis of DEM and UAV to create high-precision maps of soil nutrient content. He has experience in Eras

Action Type	As Applicant		As Partner or Consortium Member	
	Number of project applications	Number of granted projects	Number of project applications	Number of granted projects
Strategic Partnerships for higher education (KA203)	0	0	1	0
Partnerships for Digital Education Readiness (KA226)	0	0	1	0
Cooperation partnerships in higher education	0	0	1	1
Newcomer organisation	No			
Less experienced organisation	Yes			

EESTI MAAULIKOOL (E10208772 - EE)**Partner organisation details**

Legal name	EESTI MAAULIKOOL
Country	Estonia
Region	
City	TARTU
Website	www.emu.ee

Profile

Is the organisation a public body?	Yes
Is the organisation a non-profit?	No
Type of Organisation	Higher education institution (tertiary level)

Accreditation

Accreditation Type	Accreditation Reference
Erasmus Charter for Higher Education	EE TARTU01

Background and experience

Please briefly present the organisation (e.g. its type, scope of work, areas of activity and if applicable, approximate number of paid/unpaid staff, learners).

The Estonian University of Life Sciences (EMÜ) has strong track record of supporting Estonia with its sustainability transition through research, education, LLL training programs, engagement with industry and broader stakeholders, and also showcasing the best practices in sustainability through its Green University Initiative. Being established in 1951 as an agricultural academy, it still keeps a strong focus on food systems and countryside liveability, however also reaching beyond this, currently maintaining academic excellence in such fields as agriculture, forestry, animal science, veterinary science, rural life and economy, food science, as well as environmental technology, science, policy & management. According to QS World University Rankings by Subject (2020), EMÜ is one of top 50 (48) universities in the world in the field of agriculture and forestry. EMÜ also belongs to the top 1% most cited research facilities in the world. In its development plan for 2025 EMÜ has defined its goal to become internationally recognized university in the field of bio-economy. Internationally competitive research and development work, which forms a basis for teaching at all levels of higher education, as well as activities promoting the development of the society in their areas of responsibility are the striving force of the University. In Spring semester 2020/2021 there are more 3000 students enrolled at the university, from which 10,5 % are international degree students. Additionally, EMÜ receives about 120-150 exchange students each year. EMÜ employs 1006 staff members (incl 443 academic staff members).

The aim of EMÜ is to foster the sustainable management of food systems and natural resources through knowledge based education. This is reflected in the Green University Initiative involving all students and staff in EMU. It shall open EMU to new ideas and focus on new environmentally friendly solutions in everyday life; developing the Green University will be a long-term process that requires integration across all the university's educational and scientific activities. The main areas in which the green university is being developed include:

- Research – promote sustainable development through research and development activities;
- Education – integrate the principles of sustainable development into the teaching process and study outcomes;
- Campus – create a healthy learning, working and recreational environment, considering the principles of reducing the ecological footprint;
- Society – raise the environmental awareness of employees and students of the university and society and enhance collaboration with society in the course of performing the aims related with sustainable development

The EMU Action Plan until 2025 highlights the priority fields. The fields are determined by the EMU development vision, which aims to gain a leading position (e.g. a centre of excellence) in the fields of sustainable use of resources concerning:

- producing healthy and safe food;
- sustainable use of the terrestrial and aquatic biological resources, incl. protecting biological diversity, heritage communities and heritage landscapes;
- use of biotechnology in non-food biological products and processes;
- animal health;
- using wood and timber;
- sustainable energy
- ecological construction technologies and materials;
- organic products;
- agroecology;
- environmental technologies;
- environmental economics.

What are the activities and experience of the organisation in the areas relevant for this project? What are the skills and/or expertise of key persons involved in this project?

o Estonian University of Life Sciences and Institute of Agricultural and Environmental Sciences in particular has significant experiences with implementation of various projects, including H2020 as well as Erasmus+ projects, including KA2 International Projects, among the latest ones can be mentioned INTENSE, where CZU is also a coordinator. INTENSE was concerned with the development of a doctoral school in environmental studies in Ukraine, and as such has built the foundation to the SUNNY project proposals. The Institute has substantial expertise in such topics highly relevant to project proposals as ecosystem and soil recovery, as well as environmental monitoring and risk management.

o Prof. Dr. Kalev Sepp (male / responsible person from EMU) is a Professor of Landscape Management and Nature Conservation at the Estonian University of Life Sciences. He is a head of Ph.D. studies at the University of environmental science a, and the head of the Scientific Council of the Institute of Agricultural and Environmental Sciences. He has coordinated more than 35 international projects (Interreg, Europe Culture, Biodiversa, EU Research Programmes, Life+, Lifelong Learning, ERASMUS+, etc). He has supervised 17 Ph.D. students, and he has published more than 110 peer-reviewed articles (H-index 17 WoS, 21 Google Scholar). Kalev Sepp is a member of several nature conservation expert committees. He was a Vice-President and elected Councillor (2004–2012) of the International Union for Nature Conservation (IUCN). He is a member of the EU Horizon Europe Programme Committee for Environment (including climate change).

o Prof. Dr. Mait Kriipsalu (male) is a professor of water protection and waste management at the Estonian University of Life

Sciences (EULS). His main research and expertise areas are Wastewater-related projects: efficiency of wastewater treatment plants; sludge composting; quality of sewage sludge compost. Waste-related projects: monitoring of landfills; landfill mining; producer responsibility; exhibition for the waste classroom; energy resources and biomass; composting facility; safe use of waste composts; waste management plan; landfill gas; Circular Economy. Remediation-related projects: biodegradation of petroleum hydrocarbons; passive remediation; monitored natural attenuation.

o Prof. Dr. Endla Reintam (female) is EMU's vice rector of studies since January 2018. She is a professor in soil ecology with over 20 years of experience in teaching, fundamental and applied research in the area of basic soil science, soil classification, international classification systems, soil degradation, and soil physical and chemical properties and their interactions with plant growth. She teaches and prepares study materials in Estonian and English. She coordinated the organization and preparation of the materials for the international WRB study tour in 2017. Currently, she is involved in the Horizon2020 project iSQAPER, coordinates the ERASMUS+ project IntASEK, and participates in projects QUALS and SYSTEM, and in ERAS-MUS+ projects EduSapMan and FACES. She has been involved also in the EU framework program's projects TILLMAN-Org, FERTIL-Crop, and VIVAGRASS. She has published over 150 papers in international and local journals and books.

o Dr. Anton Shkaruba (male) – is a senior researcher and a focal point at the Institute of Agricultural and Environmental Sciences for Erasmus+ actions. Over the past 10 years Anton has worked in a wide range of interdisciplinary projects focusing on mapping and spatially-explicit assessment of ecosystem vulnerability to global environmental change, adaptation of social-ecological systems and sectors (forestry, biodiversity conservation, urban planning) and disaster response and risk management. He teaches courses on adaptive management of socio-ecological systems, nature-based solutions and sustainability indicators. In the Doctoral School INTENSE he is acting as a vice-director.

Action Type	Number of project applications	As Applicant	As Partner or Consortium Member	
		Number of granted projects	Number of project applications	Number of granted projects
Strategic Partnerships addressing more than one field (KA200)	0	0	1	0
Strategic Partnerships for higher education (KA203)	3	3	27	13
Partnerships for Digital Education Readiness (KA226)	0	0	1	0
Cooperation partnerships in vocational education and training	1	1	2	1
Cooperation partnerships in higher education	0	0	4	1
Cooperation partnerships in youth	0	0	2	0
Cooperation partnerships in adult education	1	1	1	0
Newcomer organisation		No		
Less experienced organisation		No		

UNIVERSITA DEGLI STUDI DI CAMERINO (E10208672 - IT)**Partner organisation details**

Legal name	UNIVERSITA DEGLI STUDI DI CAMERINO
Country	Italy
Region	Marche
City	CAMERINO
Website	www.unicam.it

Profile

Is the organisation a public body?	Yes
Is the organisation a non-profit?	Yes
Type of Organisation	Higher education institution (tertiary level)

Accreditation

Accreditation Type	Accreditation Reference
Erasmus Charter for Higher Education	I CAMERIN01

Background and experience

Please briefly present the organisation (e.g. its type, scope of work, areas of activity and if applicable, approximate number of paid/unpaid staff, learners).

University of Camerino – School of Architecture and Design (UNICAM). Founded in 1336, according to national rankings, with nearly 8.000 undergraduate students and 180 Ph.D. candidates, almost 40% of whom are foreigners, UNICAM is today one of the most internationally oriented universities in Italy. Since 2005, it has adopted the European Charter for Researchers and a Code of Conduct for their Recruitment. UNICAM is national contact point for the Italian Euraxess portal for the mobility of researchers and one of the few Italian Universities to obtain, since 2010, the prestigious European acknowledgment of HR excellence in research”, and this will bring valuable inputs for the Project activity, particularly regarding research training. Mobility and education funded projects (Erasmus, LLP, etc.) and Cooperation Agreements with universities and institutions worldwide make it possible for staff, researchers and students to participate in exchange and research programs. Thus, UNICAM has been engaged in several EU partnerships and research projects, completed, ongoing and forthcoming on the theme of Environmental Science, Local Development, and Sustainable Transition (with a special focus on territorial resilience, disaster risk reduction and adaptation to climate change). It also places a strong focus on regional development and linkages (strong liaisons with local communities, stakeholders, and decision-makers). In fact, since the establishment of the first protected areas in Italy, UNICAM has developed research and expertise on landscape, environment, and local resources, providing scientific support on environmental assessment and planning of protected areas to the government. Therefore, the interdisciplinary approach is a cornerstone, especially in the fields of local development and natural risk reduction in fragile contexts. More research topics appeared as environmental challenges grew climate change and quality of life, Quality of landscape and quality of life, Transition towards sustainability, etc. After severe earthquakes hit central Italy in 2016-2017, UNICAM has started a process of Consortiums Building at national and international levels to concentrate resources for post-seismic reconstruction, cultural heritage protection, and risk prevention and management. As a result, UNICAM co-founded the research Consortium REDI, REducing the Risks of Natural Disasters, in June 2018 (www.redi-research.eu). In addition, UNICAM has recently established a new Research, Technology Transfer and Project Management Area, which supports researchers in project design, management and reporting of national and international research funded projects and Intellectual Property Rights. UNICAM includes five University Schools: Architecture and Design, Biosciences and Veterinary Medicine, Law, Pharmaceutical Sciences and Health Products, Sciences and Technologies. The School of Architecture and Design, established in 1991, has its representative office in the historic former cloister of the Annunziata within the Parco della Rimembranza located in the highest part of the city of Ascoli Piceno. The School has the study and culture of design science as the central point of its activity and collects contributions from many disciplines. The educational activity is divided into two first-level study courses in Architectural Sciences (L17), Industrial and Environmental Design (L4), and two master's degree courses in Architecture (LM4) and Computational Design (LM12).

What are the activities and experience of the organisation in the areas relevant for this project? What are the skills and/or expertise of key persons involved in this project?

UNICAM, has significant experiences with Erasmus Projects (former Socrates and LLP) since 1989 for student/staff mobility, cooperation among organizations and institutions (KA2), and support to policy development (KA3), like: 2018-1-IT02-KA203-048005 E-tutoring: tools and web resources for study and career management; 612881-IT-EPPKA3-PI-FORWARD Smart technologies for improving Career Management Skills (CAREERS AROUND ME); 2020-1-IT02-KA226-SCH-095180 Hi-TEACH: a new trainer teaching framework in the post-covid era; 2021-1-IT02-KA220-HED-000032042 ACADEMIC THIRD MISSION: comuNiTy Engagement for a kNowledge bAsed soCleTY; CliCCHE Climate Change, Cities, Communities and Equity in Health.

o Massimo Sargolini, Full Professor in Town and Regional Planning. Director of the School of Architecture and Design, director of the Master course on “Landscape of Innerland. Development strategies and regeneration post-natural disaster”; director of the interdisciplinary research platform SUSTAINSCAPES; coordinator of Scientific Board of INU “Innerland and Reconstruction processes”; member of the International Union for Conservation of Nature - IUCN; scientific coordinator of REDI Research (REducing risks of natural Disasters - INGV, INFN, GSSI, UNICAM). Since 2016, he has served as a member of the Scientific and Technical Committee (STC) and Consultant of the Extraordinary Commissioner of the Italian Government for the 2016 post-seismic reconstruction in Central Italy for the implementation of PNRR. He is the author of more than 400 publications on the topics of town and regional planning, landscape, natural hazards, safety and quality of life.

o Illenia Pierantoni, Researcher and Assistant professor (RTD-A) in Urban and regional planning. Her research and work activities are focused on the enhancement of natural and cultural resources, with particular attention to mountain areas, protected areas, and inland areas. Since 2017, she also works on risk prevention, risk reduction, and post-natural disaster regeneration. She has served as an External Consultant of the structure of the Extraordinary Commissioner of the Italian Government for the 2016 post-seismic reconstruction in Central Italy for the implementation of the Complementary Fund to the PNRR.

o Valentina Polci, Post-doc Research Fellow in Sociology of Cultural and Communication Processes, an expert in participatory processes, communication, and citizen science in the context of disaster risk management and post-disaster recovery.

o Flavio Stimilli, Researcher and Assistant professor (RTD-A) in Urban and regional planning. He coordinates the

Secretariat of the research consortium REDI (REducing risks of natural Disasters) and his main research interests and activities concern natural hazards, community resilience and disaster risk reduction, including the preservation and enhancement of cultural heritage exposed to climate change and risks.

o Renato De Leone, Full Professor at UNICAM, Chairman of the Mathematics and Computer Science Department, Coordinator of the Bachelor and Master courses in Mathematics, Vice Director of the School of Science and Technology, Rector Delegate for Erasmus International Mobility. His main research areas are Optimization and Mathematical Programming, Mathematical Modelling, Machine Learning with special interest in Classification problems using Support Vector Machines, and Decision Support Systems (DSSs).

o Salvatore Santuccio, Associated professor in drawing at UNICAM. He's visiting professor at the School of Architecture of the University of Miami and at the Institute Universitaire de la Cote in Douala, Cameroon. He is a watercolorist, has exhibited in Italy and abroad, and has published many books and essays on architectural and travel drawing. His main research interests and activities concern Architectural Drawing and Graphic Design and communication strategies in research, education, and social engagement.

Action Type	Number of project applications	As Applicant	As Partner or Consortium Member	
		Number of granted projects	Number of project applications	Number of granted projects
Strategic Partnerships addressing more than one field (KA200)	1	1	0	0
Strategic Partnerships for higher education (KA203)	9	1	17	3
Partnerships for Digital Education Readiness (KA226)	0	0	2	1
Cooperation partnerships in school education	0	0	1	1
Cooperation partnerships in vocational education and training	0	0	3	0
Cooperation partnerships in adult education	0	0	3	0
Cooperation partnerships in higher education	4	4	8	3
Cooperation partnerships in youth	0	0	3	0
Newcomer organisation		No		
Less experienced organisation		No		

Odessa State Environmental University (E10167368 - UA)**Partner organisation details**

Legal name	Odessa State Environmental University
Country	Ukraine
Region	Ukraine
City	Odessa
Website	www.odeku.edu.ua

Profile

Is the organisation a public body?	Yes
Is the organisation a non-profit?	Yes
Type of Organisation	Higher education institution (tertiary level)

Background and experience

Please briefly present the organisation (e.g. its type, scope of work, areas of activity and if applicable, approximate number of paid/unpaid staff, learners).

Odessa State Environmental University (OSEN) is the key higher education centre in Ukraine in the area of Environmental Studies, Hydrometeorology, Management, Computer Science and Water Bio-Resources. Over a long period the main aim of OSEN (founded in 1932) was to train personnel in the fields of environmental quality monitoring and environmental control. Lately it has started training specialists in the allied fields, such as Geographic Information Systems and Management. OSEN offers both full-time studies (530 BSc, 160 MSc and 60 PhD students) and distance learning facilities (300 students). In the field of Hydrometeorology OSEN has been training specialists for the WMO for more than 50 years. The curricula for training specialists meet all international standards and are acknowledged by hydrometeorological services all over the world. Since 1957 the University has provided training for some 1600 specialists from more than 70 countries, including circa 150 Candidates and Doctors of Science. Among the graduates are many prominent scientists, researchers, environmental managers and environmental meteorological subdivisions of Ukraine, CIS countries and many countries around the world. One of the graduates of OSEN, a member of Intergovernmental Panel on Climate Change, Alioune Ndiaye was awarded the Nobel Peace Prize (2007). For the time being foreign citizens of 27 countries have been provided education at the University. Up to now the structural units of OSEN include: Education and Research Hydrometeorological Institute, the Nature Protection Faculty, the Faculty of Computer Science, Management and Administration, the Dean's Office for the Work with Foreign Students, Kherson and Kharkiv Technical Colleges of Hydrometeorology, Odessa College of Computer Technologies, the Center for Postgraduate Studies, the Preparatory Department, the Department of Foreign Relations etc. Training, including the second higher education, full-time, extramural and distance learning is provided in 11 specialties of higher education at the levels of Bachelor, Master and PhD: 051 Economics, 073 Management, 101 Environmental Science, 103 Earth Sciences, 104 Physics and Astronomy, 113 Applied Mathematics, 122 Computer Sciences and Information Technology, 183 Environmental Protection Technologies, 207 Water Bioresources and Aquiculture, 281 Public Management and Administration, 193 Geodesy and Land Management. At Odessa State Environmental University, there provided Doctorate and Post-Graduate studies, and there operate three specialized Academic Councils for defence of doctoral and PhD theses in five research areas. Currently, about 200 research and teaching staff are employed at 21 departments of the University. Furthermore, OSEN hosts the annual International Conference on Regional Environmental Problems and the Solutions for young scientists. In 2012 a Coordination Centre for Training and Retraining of Specialists in Agricultural Meteorology, Agroecology and Climate Change from the CIS countries was established as a result of the joint actions under 159352-TEMPUS-FI-TEMPUS-JPHES, 159173-TEMPUS-DE-TEMPUS-JPCR and 511390-TEMPUS-1-2010-1-SK-TEMPUS-JPCR projects, and in 2014 it became an International Training Centre in Environmental Science.

What are the activities and experience of the organisation in the areas relevant for this project? What are the skills and/or expertise of key persons involved in this project?

Odessa State Environmental University (OSEN) in particular has significant experiences in implementation of international actions in the field of higher education, such as: 'Multilevel Local, Nation- and Regionwide Education and Training in Climate Services, Climate Change Adaptation and Mitigation – ClimEd' (2020-2024), 'Integrated Doctoral Program for Environmental Policy, Management and Technology – INTENSE' (2017-2020), 'Adaptive learning environment for competence in economic and societal impacts of local weather, air quality and climate (ECOIMPACT)' (2015-2018), 'Qualifications Framework in Environmental Science at Ukrainian Universities – QANTUS' (2013-2017), 'Environmental Governance for Environmental Curricula (EnGo)' (2010-2014), and in the field of research: Horizon 2020 'Developing an Optimal and Open Research Support system to unlock the potential for blue growth in the Black Sea - DOORS' (2021-2025), Black Sea Basin Programme 'Integrated hotspots management and saving the living Black Sea ecosystem – HOT BLACK SEA' (2013-2015), SEE TCP 'Network for the integration of climate knowledge into policy and planning – OrientGate' (2012-2014).

o Yurii Tuchkovenko (male / responsible person from OSEN) is a Vice-Rector in Charge of Research, DSc (Geography), Prof. of the Department of Oceanology and Marine Nature Management. He is a leading expert in the field of Oceanology and Hydroecology. In 1998 was awarded the first prize of the National Oceanographic Commission of Colombia. He headed the OSEN Research team in FP7-ENV-2011 283157 LAGOONS programme. He has experience in implementation of the project HOT BLACK SEA under the 'Black Sea Basin - 2007-2013' programme. He has supervised 3 PhD thesis. With his active participation the educational standards and curricula in the field of Oceanology for MSc students have been developed and implemented in the educational process. He has 185 scientific publications, including 7 monographs.

o Anatolii Polovyi (male / responsible person from OSEN) is a Head of the Department of Agrometeorology and Agroecology, DSc (Geography), Professor, Academician of the Academy of Sciences of the Higher School of Ukraine, Founder of a scientific school of modelling plant production process (35 PhDs and 2 DScs), author of 4 monographs and a fundamental textbook – 'Agricultural Meteorology', as well as the textbooks of 'Methods of Experimental Agrometeorological Research', 'Anthropogenic Pollution of Geological Environment and Soil-and-Plant Cover', 'Long-term Agrometeorological Forecasts' and 'Modelling of the Hydrometeorological Regime and Productivity of Agroecosystems'. He has experience with implementation of a range of international projects, such as 511390-TEMPUS-1-2010-1-SK-TEMPUS-JPCR, 544524-TEMPUS-1-2013-1-PL-TEMPUS-SMHES, 561975-EPP-1-2015-1-FI-EPPKA2-CBHE-JP, 586471-EPP-1-2017-1-EE-EPPKA2-CBHE-JP and 619285-EPP-1-2020-1-FI-EPPKA2-CBHE-JP.

o Angelina Chugai (female / responsible person from OSENU) is a Dean of the Nature Protection Faculty, Professor of the Department of Environmental Science and Environmental Protection, DSc (Technology). Her speciality is Environmental Safety, and her research interests cover assessment of technogenic load on the environment, methods for assessment of the water and air quality, etc. She has experience in 2 Tempus IV (QANTUS, EnGo) and 3 Erasmus+ (ECOIMPACT, INTENSE, ClimEd) projects. She has more than 70 research and methodical papers.

o Olena Hubanova (female / responsible person from OSENU) is a Head of the Department of Environmental Economics, DSc (Economics), Professor. She is an expert in licensing and accreditation of Master degree programmes in 'Environmental Economics and Natural Resources', 'Environmental Control and Audit' for the Ministry of Education and Science of Ukraine. She specializes in the field of waste management and resource conservation. She has 180 published scientific and methodological papers.

Action Type	As Applicant		As Partner or Consortium Member	
	Number of project applications	Number of granted projects	Number of project applications	Number of granted projects
Newcomer organisation			Yes	
Less experienced organisation			Yes	

SUMY STATE UNIVERSITY (E10174056 - UA)**Partner organisation details**

Legal name	SUMY STATE UNIVERSITY
Country	Ukraine
Region	Ukraine
City	SUMY
Website	http://www.sumdu.edu.ua

Profile

Is the organisation a public body?	Yes
Is the organisation a non-profit?	No
Type of Organisation	Higher education institution (tertiary level)

Background and experience

Please briefly present the organisation (e.g. its type, scope of work, areas of activity and if applicable, approximate number of paid/unpaid staff, learners).

Sumy State University (SumDU) is a higher education institution of a classical type located in the city of Sumy, North-Eastern part of Ukraine. Its history goes back to 1948, when it started to train engineers to address demands of regional industry. After a range of transformations as a polytechnic institution, in 1993 Sumy State University obtained its status of a comprehensive HEI. Today, the University follows the ideology of research institution where scientific activity together with a large-scale international cooperation and the focus on innovation technologies, in particular ICT, is dominating. Research and educational activity of SumDU embraces a wide scope of subject areas from engineering and ICT to natural and social sciences, medicine and humanities.

The University currently serves about 12,000 students who are pursuing bachelor, master and PhD degrees in 55 majors and 24 fields of knowledge. Currently, about 2000 of foreign students at SumDU represent 50 countries worldwide. 15 study programmes are entirely taught in English.

What are the activities and experience of the organisation in the areas relevant for this project? What are the skills and/or expertise of key persons involved in this project?

Assoc. Professor Dr. Yelizaveta Chernysh (female / responsible person from SSU) – She is Associate Professor of the Department of Ecology and Environmental Protection Technologies at Sumy State University and director of the International Innovation and Applied Center “Aquatic Artery” (Ukraine). Her sphere of scientific interests includes: biotechnologies of waste recycling, with special attention being paid to the pre-treatment and utilization of waste/by-products for bioconversion with the production of bio-based products (biogas, bio-fertilizer, bio-sulfur, etc.), education for European Green Deals, development of the life-cycle assessment concept towards adaption to climate changes etc. The sphere of her scientific interests also comprises the theoretical and practical aspects of the synergetic concept of nonlinear ecosystems processes, which include the estimation of anthropogenic impact. She previously evaluated the basic stages of anaerobic digestion of sewage sludge and phosphogypsum waste under bio-sulfidogenic conditions and under the effects of ozone pretreatment on the biodegradability of sewage sludge. The use of the sludge pre-treatments prior to the anaerobic digestion process led to an increase in organic matter removal under mesophilic conditions. Since 2020, she has been involved in the research focused on biogas technology implemented in the context of European countries. She is expert of Section 4 “Climate Change, Environment, Clean Building and Environmental Management” of the Scientific Council of the Ministry of Education and Science of Ukraine for the examination of projects of scientific works (developments) of young scientists. She is a member of the Program Committee of the International Conference on Sustainable Futures: Environmental, Technological, Social and Economic Matters (ICSF-2021, 2022, 2023) and member of the Program Committee of InterPartner-2020-2022 (2nd Grabchenko's International Conference on Advanced Manufacturing Processes) etc. Today, under her scientific guidance, 4 applicants are studying for a doctorate. Carries out jointly with the representative of the Czech Natural Science University in Prague, doctor of philosophy Hynek Rubik scientific co-supervisor of the PhD student from Sumy State University. Project leader of the research project “Bioenergy processes of waste recycling and utilization as soil amendments in reclaimed minelands” (2020-2021), implemented in the framework of the grant program for multidisciplinary programs. Included researchers from Sumy State University, Dnipro State Agrarian and Economic University and the Czech Natural University in Prague. She was also the responsible executor of the joint Ukrainian-Czech research project “Bioenergy Innovations in Waste Recycling and Natural Resource Management”, 2021. She also received project's grants (2021-2022): Cross-grant for Multidisciplinary research team “Co-digestion of poultry litter with cellulose containing substrates”, Czech government support provided by the Ministry of Foreign Affairs of the Czech Republic, which allowed this scientific cooperation to start within the project “Interuniversity cooperation as a tool for enhancement of quality of selected universities in Ukraine” – 2021 – 2022; Cross-grant for Multidisciplinary research team “Combined Use of Pretreatment Methods under Anaerobic Digestion”, Czech government support provided by the Ministry of Foreign Affairs of the Czech Republic, which allowed this scientific cooperation to start within the project “Strengthening scientific capacities and cooperation of Ukrainian universities in AgriSciences” – 2020 – 2021. She has a significant experience of research work consisting of over 150 publications, including patents for invention, manuals, articles in journals included in the science-computer databases Scopus, Web of Science Core Collection, Copernicus etc. In addition, she has participated in a series of foreign scientific internships, such as Ge

Action Type	As Applicant		As Partner or Consortium Member	
	Number of project applications	Number of granted projects	Number of project applications	Number of granted projects
Partnerships for Digital Education Readiness (KA226)	0	0	1	1
Cooperation partnerships in vocational education and training	0	0	1	0
Cooperation partnerships in adult education	0	0	2	1
Cooperation partnerships in youth	0	0	2	0
Newcomer organisation	No			
Less experienced organisation	Yes			

Institute of Ecology of the Carpathians Natajyaal Academy of Ukraine (E10330593 - UA)**Partner organisation details**

Legal name	Institute of Ecology of the Carpathians Natajyaal Academy of Ukraine
Country	Ukraine
Region	
City	Lviv
Website	

Profile

Is the organisation a public body?	Yes
Is the organisation a non-profit?	Yes
Type of Organisation	Higher education institution (tertiary level)

Background and experience

Please briefly present the organisation (e.g. its type, scope of work, areas of activity and if applicable, approximate number of paid/unpaid staff, learners).

o Institute of Ecology of the Carpathians National academy of Science of Ukraine (IEC NASU) is a public academic research institution within the Academy of Science of Ukraine. It is the national center of excellence in science, management and governance of mountain ecosystems, and its geographical scope includes socio-ecological systems of Ukrainian Carpathians as well the whole western part of UA with a particular focus on forests. The Carpathians, which are also shared by Poland, Slovakia, Hungary & Romania, are prominent in Europe in terms of timber and non-timber forest resources and as a tourist destination of growing importance. Ecosystems of the Ukrainian stretch of Carpathians are under sever overexploitation due to governance fragmentation and poor monitoring and accountability of state and non-state actors. IEC leads an effort of the UA academia to halt ecosystem degradation through the best scientific evidence and systematic revision of policies and management practices; in particular, IEC explores opportunities brought by the EU association agreement. IEC employs 50 researchers working in 4 departments (environmental protection, ecological systematics, population ecology, plant ecomorphology) and the high mountain field station. It runs a PhD program in ecology, it hosts a permanent doctoral defence committee, and contributes to academic programs of Ivan Franko National University of Lviv and Ukrainian National Forestry University. IEC participated in and coordinated a number of international initiatives (FP6/FP7, INTERREG etc) focusing on the protection of habitats and biodiversity of the Carpathians, and also in several Erasmus+ projects, including current CBHE actions on the development of national qualification framework in biodiversity conservation, and on the development of a national doctoral school on environmental sciences and governance. IEC hosts conferences, summer schools, and co-organises series of stakeholder roundtables on sustainable forestry in Western Ukraine. IEC is a key research partner of Regional Forestry Departments in Western Ukraine and their training centres.. At the IEC NASU operates a research station, where long-term studies concerning peculiarities of functioning terrestrial ecosystems in mountain regions are conducted. Every year, at Institute 4 post-graduate students carried out a set of different forms of training in the 101 Ecology. IEC NASU organized the conference for young scientists and publishes a periodic collection of proceedings "Scientific basis of conservation of biodiversity". IEC has laboratory test equipment, including fluorescence microscope Axio Imager M1 Carl Zeiss with a digital camera, computers and software.

What are the activities and experience of the organisation in the areas relevant for this project? What are the skills and/or expertise of key persons involved in this project?

o Institute of Ecology of the Carpathians National academy of Science of Ukraine (IEC NASU) in particular has significant experiences in implementation of international actions in the field of higher education, such as 'Integrated Doctoral Program for Environmental Policy, Management and Technology – INTENSE' (2017-2020), Qualifications Framework in Environmental Science at Ukrainian Universities – QANTUS' (2013–2017), Environmental Governance for Environmental Curricula (EnGo)' (2010-2014)/

511390-TEMPUS-1-2010-1-SK-TEMPUS-JPCR,
544524-TEMPUS-1-2013-1-PL-TEMPUS-SMHES

o Iryna Shpakivska (Female / responsible person from IEC NASU) She is a Senior Researcher and the head of the Department of Ecosystemology at the IEC NASU, she is a lecturer at the College of Natural Sciences of the Ivan Franko National University of Lviv. Iryna carries out research in carbon turnover in the forest ecosystems of mountain areas, and teaches courses in ecology, agroecology, and human ecology. She is involved in supervision of post-graduate students and authors research articles, co-authors books and educational materials in the field of forestry and the EU studies. Iryna has experience of developing and implementing of the EU academic cooperation projects including Erasmus+ and TEMPUS initiatives. Iryna will serve as the project coordinator and oversee dissemination activities in the project. She will contribute to papers, policy brief and educational materials

o Oksana Maryshevych (female / responsible person from IEC NASU)/ She is a Senior Researcher of the Department of Ecosystemology at the IEC NASU; she is a reviewer of bachelor and magister studies (specialization – ecology and protected of environmental) at the National University Lviv Polytechnic, a Member of section of Natural Heritage of the Ukrainian National Commission for UNESCO. She is a Member: of Scientific Council for Ph.D. of Science Dissertations in Ecology, Bison Special Group of SSC IUSN, Scientific Council of NP Huculshchyna, NP Skolivski Beskydy, Carpathian NP, Coordination Council of IBR "Eastern Carpathians". Oksana carries out research in soil biological activity and impacts of anthropogenic influence of soil properties in the mountain forests, author of research articles, co-authors books and educational materials at the protected areas of forest ecosystems. Oksana has experience of implementing of the EU academic cooperation the project INTENSE of the Erasmus+ Programme. In the project Dr. Oksana Maryshevych will be in charge for organisation of stakeholder talks in Ukraine, as well as research of the success of EU management and policy tools in the Ukrainian forestry. He will take part in teaching, field research and development of papers.

511390-TEMPUS-1-2010-1-SK-TEMPUS-JPCR,
544524-TEMPUS-1-2013-1-PL-TEMPUS-SMHES

Action	As Applicant		As Partner or Consortium Member	
	Number of project	Number of granted	Number of project	Number of granted

Type	applications	projects	applications	projects
Newcomer organisation			Yes	
Less experienced organisation			Yes	

Relevance of the project

Priorities and Topics

All project proposals under the Erasmus+ Programme should contribute to one or more of the programme's policy priorities.

Please select the most relevant priority according to the objectives of your project.

HORIZONTAL: Environment and fight against climate change

If relevant, please select up to two additional priorities according to the objectives of your project.

HE: Supporting Higher Education institutions in their cooperation with Ukrainian counterparts to respond to the war in Ukraine

How does the project address the selected priorities ?

SUNNY addresses the horizontal priority 'Environment and the fight against climate change' through its direct action concerned with the development of national research and teaching expertise in the range of topics related to preventing, mitigating, and overcoming environmental impacts caused by the war, and with the development of the relevant cooperation capacity of EU partners. Similarly, it deals with 'Addressing digital transformation through the development of digital readiness, resilience, and capacity' by developing war-resilient infrastructure to support research training in Ukraine in cooperation with EU partners.

SUNNY addresses the sectoral specific priority "Supporting Higher Education institutions in their cooperation with Ukrainian counterparts to respond to the war in Ukraine" through its direct action targeting cooperation capacities in the EU and Ukraine over vital components and mechanisms of research training in environmental topics at Ukrainian partner institutions and beyond.

Please select up to three topics addressed by your project

Information and communication technologies (ICT)

Environment and climate change

Energy and resources

Project description

Please describe the motivation for your project and explain why it should be funded.

The SUNNY project was driven by three main motivation forces.

One has to do with the damage the war in Ukraine causes to its HEIs, including their capacity to deliver quality research training, and the ability of EU partner institutions to cooperate over educational and research initiatives. It is noteworthy that the national doctoral school INTENSE created under the CBHE project 586471 (led by EMU, EE and including SUNNY partners in Ukraine, 2017-2021) had almost stopped functioning because its ICT infrastructure (hosted by OSENU, UA) is in periodic outages due to frequent blackouts, the human resources of Ukrainian institutions (i.e. teaching, research, technical and administrative support) are declining (through brain drain, draughting to the army, war casualties), and access to research facilities is blocked or constrained, PhD supervisors are not available or severely overworked to compensate to human resource shortages, etc.

The other is that the war has brought new challenges to the environmental sector. The need to create new resilience and planning for postwar recovery calls for the development of new areas of research and teaching expertise. Such fields of expertise include enhancing disaster preparedness through 'build back better', the development of resilient and autonomous energy systems, assessment of war damage, restoration and re-cultivation of ecosystems, food systems, and settlements, etc.

The third is that in order to ensure the competitiveness and future development of Ukrainian higher education and research, they need to be maintained and provided with state-of-the-art solutions and resources.

SUNNY is seeking to address these three areas through the development of the capacity of EU HEIs for cooperating with UA counterparts, as well as the capacity of UA organisations to make direct use of this cooperation, and to relaunch doctoral training in environmental sciences, management and policy at competitive level delivering on the needs of Ukrainian society. These actions need EU support because Ukraine is struggling to maintain even the basic functions of its HEIs; at the same time, the cooperating EU HEIs, although potentially they have all the required expertise and will to help, are limited in their capacity to create sufficient supporting action for addressing the problematic areas.

What are the objectives you would like to achieve and concrete results you would like to produce? How are these objectives linked to the priorities you have selected ?

SUNNY brings forward the following objectives:

(1) Ensuring the resilience of learning infrastructure and resources of doctoral training in environmental sciences, policy, management, and technology through the development of ICT and organisational solutions providing uninterrupted access of doctoral students in Ukraine to credit mobility, supervision, graduation, and networking solutions.

The concrete results will include development of doctoral training ICT online framework (e-learning, e-science modules, e-portfolio) with its hosting at CZU as a war-resistant measure, organisational and institutional solutions for accessing network resources available to EU partners, and training events (offline in English for preparing trainers, and online in Ukrainian) for future users of the developed products.

(2) Supporting resilience to war impacts and postwar recovery of Ukraine through the development of research and teaching expertise in areas critical to environmental and socioeconomic sustainability, such as enhancing disaster preparedness through "build back better", the development of resilient and autonomous energy systems, assessment of war damage, as well as restoration and reactivation of ecosystems, food systems, and settlements.

The concrete results will include new courses and modules worth 10 ECTS (co-developed and co-piloted by EU and Ukrainian partners) and addressing issues of disaster preparedness and the management of the aftermath, with particular attention to war-related impacts, co-supervision of PhD students at UA partners (including those exploring the new topics in their thesis work) and providing them other forms of resource support, and training events for staff and students addressing the emerging issues.

(3) Maintaining and enhancing the Ukrainian higher education and research in environmental fields through the introduction of innovative ICT and organisational solutions. They will be identified in an agile manner as the situation unfolds further. The adoption of VR-, AR-technologies within a common on-line platform is an important direction in distance learning and research.

The objectives (2) is related to the horizontal priority "Environment and fight against climate change" through their direct action concerned with the development of national research and teaching expertise on a wide range of topics related to preventing, mitigating and overcoming environmental impacts caused by war, and with the development of the relevant cooperation capacity of EU partners. Likewise, objectives (1) and (3) are 'Addressing digital transformation through the development of digital readiness, resilience, and capacity' by developing a war-resistant infrastructure to support research

training in Ukraine in cooperation with EU partners.

All three objectives address the sector-specific priority 'Supporting Higher Education institutions in their cooperation with Ukrainian counterparts to respond to the war in Ukraine' through its

What makes your proposal innovative?

The proposal offers two important innovative components. One comes from constructing a set of actions specifically addressing the needs of research training in environmental subjects in a country under military aggression, including the creation of war-resilient teaching and learning infrastructure. The other has to do with the innovative ICT and organisational solutions embedded in this set and also aiming at maintaining and developing the competitiveness of doctoral training in environmental subjects in Ukraine in cooperation with EU partners. Solutions will be identified in an agile manner as the situation unfolds further. The example of such solutions include: implementation of an integrated system for collecting data on the state of the environment in the consequences of military hostilities with the use of GIS is the ArcGIS Online service; implementation of free digital tools for sustainable education and science in Ukraine digitally to share experiences and inspire innovation and new ways of working in collaboration with EU partner organisations.

How is this project complementary to other initiatives already carried out by the participating organisations?

SUNNY is very much built on the results of the E+ CBHE project INTENSE (586471, 2017-21, <http://intense.network/>, involving EMU, OSENU, KGNU, ICE) that has established in Ukraine the national doctoral school in environmental subjects. The organisation and infrastructure of this school has proved not sustainable in war conditions and, therefore, a new action is needed for it to function in new circumstances. It was recognised that in the war situation, the role of the school can be even more significant for UA partners and their academic communities than thought in peaceful times, provided that its organisation and infrastructure are properly reconfigured. INTENSE is therefore providing to SUNNY the basic organisational framework that can be used for further developments.

SUNNY is also benefiting from the cooperation experience of CZU with Ukrainian academia, such as the platform, aimed at strengthening the capacities and cooperation of young teachers, researchers, and masters and doctoral students at five Ukrainian universities, including SumDU. The history of UniCam cooperation in Ukraine included 8 CBHE actions since 2018 (including 6 as coordinator); 2 projects were concerned with ICT and pedagogical aspects of doctoral studies. The experience and networks gained during the implementation of these activities will be used in SUNNY as well.

SUNNY EU partners have implemented a number of initiatives concerned with disaster preparedness, post-disaster recovery (including the war) and eco & agricultural systems and settlement restoration. Most of all, this concerns UniCam that had to cope with managing the aftermath of the disaster even when rebuilding its own campus destroyed by the 2016 earthquake. The wide range of aspects related to recovery after an earthquake and preparedness for the disaster is naturally a core area of expertise for the university. The department cooperating under SUNNY has since then implemented 5 projects on relevant aspects of risk management.

How is your proposal suitable for creating synergies between different fields of education, training, youth and sport or how does it have a strong potential impact on one or more of those fields?

SUNNY is creating synergies between a broad range of fields of education and training dealing with resilience to war impacts and post-war recovery. While the project is primarily focussing on environmental issues, it also reaches to bordering social, economic, and technology fields, as well as urban and spatial planning. Both teaching and learning contents provided under SUNNY (with a large portion to be made available open access or through a light registration process) as well as research results of doctoral students exploring relevant topics, are expected to be used beyond target departments and study programmes, and also beyond higher education and research, including in other tertiary levels, LLL, and informal learning.

Likewise, the war-resistant teaching, learning and research training collaboration infrastructure to be developed under SUNNY can be deployed in other tertiary and non-tertiary fields of education. This will be facilitated by the development and implementation of a common online platform, which can become a reliable base for: 1) lectures and practical work on courses involving work with spatial information, 2) presentation of scientific and educational works of graduate students and teachers, 3) publication of environmental and other information obtained in the course of research, 4) public access to data for stakeholders in a real-time mode.

How does the proposal bring added value at European level through results that would not be attained by activities carried out in a single country?

The war brought to Ukraine has created unprecedented challenges for European higher education and research spaces. Accordingly, there is a concerted effort of more than one EU member state to manage them. SUNNY is bringing together various kinds of research, educational, organisational, networking, and ICT expertise from Southern through Central and Northern EU macroregions in order, through the combinations of approaches, geographical advantages, and national co-funding schemes, to attain the project objectives.

All three EU partners have a rich cooperation history with Ukrainian institutions, and once the war started, have contributed

to the relief effort through their own resources, the enthusiasm of their employees and students, as well as governmental support schemes (where available). SUNNY will help to channelise the efforts concerned with doctoral training in environmental and related subjects, and also reach other national academic and non-academic stakeholders willing to contribute, such as REDI Research (REducing risks of natural Disasters - founded by 4 Italian research institutes: INGV, the National Institute of Geophysics and Volcanology, INFN, the National Institute of Nuclear Physics, GSSI, the Gran Sasso Science Institute and UNICAM - University of Camerino), the Italian National Institute of Urbanism INU, University of Tartu, student unions in all the three EU partner countries, etc.

Not least, SUNNY will integrate the specific disciplinary expertise of the EU partner countries needed in Ukraine to manage and overcome the effects of the war. This includes, among others, the expertise related to the management of earthquake risks and consequences available in Italy (UniCam), regeneration of war-destroyed cities and soil cover available in Czechia (CZU), recovery of wetland, forest and meadow ecosystems affected by mining and land amelioration activities developed in Estonia (EMU), etc.

Needs analysis

What needs do you want to address by implementing your project?

SUNNY addresses two groups of needs. The first one is directly related to the problems of Ukrainian academia, and specifically of PhD studies in environmental subjects brought to the country with the war. The second group of needs is related to the capacity of EU partners to support UA institutions in addressing the identified needs. As the war unfolded, the following needs have been identified:

- students and professors had limited to no access to the ICT infrastructure of doctoral training, including e-courses, e-science, e-portfolio etc., due to periodic blackouts and server outages; therefore they need solutions providing, as much as possible, uninterrupted access to e-resources; the EU partners (or other EU universities) do not have capacity to create such solutions;
- the academic staff is greatly overcommitted due to staff shortages (including administrative and technical staff) caused by brain drain, draughted male staff, and war casualties, and is often missing for teaching and supervision; this arises the needs for deficit teaching and learning content, co-supervision, and thesis defense arrangements; the EU partners do not have such arrangements in place currently;
- a considerable base of research expertise concerned with the preparedness to war impacts and their management was not present or not well developed in Ukraine; hence, the needs for such expertise to be introduced through new teaching contents and research by PhD students; although EU partners were running research on relevant topics, most of it was not translated to teaching and learning materials, and the partners do not have resources for that nor for developing and running training events for UA counterparts;
- the war and its aftermath greatly compromised the competitiveness of Ukrainian science and education, with the Ukrainian HEIs quickly losing its national and international attractiveness; this raises the needs for innovative measures for maintaining the professional level of Ukrainian HEIs, and for ensuring their future development; EU partners do not have resources for creating a combined effort to (co-)develop such measures in cooperation with UA partners, and to run training events to build necessary capacity in Ukraine.

What are the target groups of the project?

The project target groups are distinctively different in the EU and UA segments of the partnership. In the EU, they include:

- staff and students at EU partner universities interested in supporting Ukrainian academia and post-war recovery in Ukraine; this group is typically ready to contribute its time and expertise to the cause; however, they would need ready organisational and technical solutions to contribute better, or to start cooperating with UA counterparts;
- external stakeholders at EU partner countries and beyond (academic and non-academic) who are willing to support environment, society and/or the academia /in Ukraine; a number of organisations (Italian National Institute of Urbanisme INU; Italian NAG Legambiente; Estonian Environmental Board, student unions in all the 3 countries) are willing to provide support at regular or, more often, one-off basis; SUNNY will provide solutions for formalising and making use of such offers.

The directly addressed target groups in Ukraine include:

- PhD students at partner institutions (c.a. 15 per year, and 25 with the broader INTENSE partnership counted) who need to successfully complete their programmes, defend, and launch research carriers; this shall be achieved through the access to SUNNY teaching and learning infrastructure and resources (partially available to the broader INTENSE partnership);
- Academic staff at partner institutions (c.a. 40 potential supervisors and teachers at PhD level; 65 with the broader INTENSE partnership) who need to carry on under unprecedented challenges and with the current piling over tasks, and prepare to future societal demands; this will be supported through the access to SUNNY teaching and learning resources, co-development of tailor-made curriculum contents, and training events to develop necessary competences;

Technical and administrative staff at partner institutions (c.a. 14 staff managing doctoral studies; 25 with the broader INTENSE partnership) who n

How did you identify the needs of your partnership and those of your target groups?

The needs of partnership have been identified through the practical experience of the INTENSE doctoral school and its members in Ukraine since the start of the war. With its outbreak, all the INTENSE consortium members started to experience similar problems with carrying out their doctoral programmes. KGNU has been particularly affected, with its building damaged and a large portion of the academic, technical, and administrative staff evacuated from the city as their residential areas have been shelled. As a result, the educational provision at KGNU was interrupted and later resumed in online only formats, with much of their academic staff spread in safer regions of the country or emigrated. Other impacts, which have also been experienced by other partners, included the recruitment of male members of the staff and lengthy

blackouts. The latter was also the reason for the outages of the ICT infrastructure of universities, including the OSENU servers hosting all the e-resources of the INTENSE school. A particular problem related to this was also that the servers, the teacher and the students could have been in different regions of Ukraine, with their own blackout schedules, and that is enhancing the war's impact on the educational provision. These problems are calling for war-resilient ICT infrastructure, and for support in delivering PhD courses, supervision, and graduation. In addition, an internal online survey was done among partners as well as other relevant stakeholders in Ukraine via AgriSci-UA platform (which is coordinated by CZU). Other issues are related to emerging areas of environmental expertise needed by the society of Ukraine, such as the issues of war impact preparedness and the management of the aftermath. This calls for building national expertise in Ukraine through research training on relevant topics and new topics for thesis work.

These problems have been regularly discussed on board meetings of the INTENSE school (the INTENSE Ukraine school i

How will this project address these needs?

Recognising the needs identified in the course of the war, SUNNY addresses them through its three main objectives.

Under the first objective, SUNNY will:

- support uninterrupted access to e-resources through the development of e-services (blended learning courses, e-science modules, e-portfolio) for the doctoral school INTENSE and its partners on the servers of CZU;
- enhance the educational offer and ensure access to the best European and international practises by linking to collaborative platforms and other network learning resources available through EU SUNNY partners;
- enhance the capacity of academic, technical, and administrative staff at EU and UA partners in making use of such arrangements through online and offline training events (in English and Ukrainian).

Under its second objective, SUNNY will:

- ensure the availability of relevant curriculum deliverables (new disciplines and existing disciplines updated with new modules, as well as teaching and learning materials) addressing the issues of war impact preparedness and the management of the aftermath through their co-development by EU and Ukrainian partners;
- to encourage society-relevant research and research training in Ukraine through support to PhD research and supervision addressing the issues of war impact preparedness and the management of the aftermath through co-supervision, training, and resource support to Ukrainian PhD students and supervisors by EU partners;
- enhance the capacity of academic staff and Ph.D. students at EU and UA partners in issues of war impact preparedness and the management of the aftermath through online and offline training events (in English and Ukrainian).

Under its third objective, SUNNY will present a set of actions to maintain and improve Ukrainian tertiary education and research in environmental fields by introducing innovative ICT and organisational solutions, which will be identified in an agile manner as the situation unfolds further. The implemen

Partnership and cooperation arrangements

Partnership composition

Organisation ID	Legal name	Country	City	Organisation type	Newcomer
E10209207	Česká zemědělská univerzita v Praze	Czech Republic	Praha - Suchdol	Higher education institution (tertiary level)	No
E10175429	V. N. Karazin Kharkiv National University	Ukraine	Kharkiv	Higher education institution (tertiary level)	No
E10208772	EESTI MAAULIKOOL	Estonia	TARTU	Higher education institution (tertiary level)	No
E10208672	UNIVERSITA DEGLI STUDI DI CAMERINO	Italy	CAMERINO	Higher education institution (tertiary level)	No
E10167368	Odessa State Environmental University	Ukraine	Odessa	Higher education institution (tertiary level)	Yes
E10174056	SUMY STATE UNIVERSITY	Ukraine	SUMY	Higher education institution (tertiary level)	No
E10330593	Institute of Ecology of the Carpathians Natajyaal Academy of Ukraine	Ukraine	Lviv	Higher education institution (tertiary level)	Yes

Cooperation arrangements

How did you form your partnership? How does the mix of participating organisations complement each other and what will be the added value of their collaboration in the framework of the project? If applicable, please list and describe the associated partners involved in the project.

The EU partners have a rich cooperation history with the Ukrainian counterparts, including several ongoing projects between the EU and Ukrainian SUNNY partners. The Estonian University of Life Sciences (EMU) was the coordinator of the E+ CBHE project INTENSE establishing the Ukrainian National Doctoral School INTENSE in environmental policy, management, and technology (<http://intense.network/>) that is at the core of the cooperation support action and was instrumental in identifying the needs and proposing the instruments to address them. Following up the talks with the INTENSE school, EMU has reached the Czech University of Life Sciences in Prague (CZU) recognising its greater capacity to run large-scale cooperation actions and complementary expertise, and being aware of its initiatives to support Ukrainian academia. Having run a workshop identifying available and missing competencies and expertise needed to address the needs of Ukrainian partners, the University of Camerino (UniCam) has been invited to complete the EU segment of the consortium.

In terms of complementing expertise and experience, all three EU partners are active in the development of e-resources and online services, CZU being particularly prominent with such activities. SUNNY will integrate the disciplinary expertise specific to the EU partner countries and needed in Ukraine to manage and overcome war impacts. This includes, among others, the expertise related to the management of earthquake risks and consequences (including planning, citizen monitoring etc) available in Italy (UniCam), regeneration of war-destroyed cities and soil cover available in Czechia (CZU), recovery of wetland, forest and meadow ecosystems affected by mining and land amelioration activities developed in Estonia (EMU), etc.

The SUNNY partnership in Ukraine was formed by core partners of the INTENSE Doctoral School - Odessa State Environmental University (OSEN), Kharkiv VN Karazin National University (KGNU), and Institute of the Ecology of the Carpathians of the National Academy of Sciences (ICE), and Sumy State University (SumDU) pending to join it. This segment of partnership represents a balance of various fields of environmental expertise (and fields of doctoral studies), ranging from energy and environmental technologies (SumDU), to water and climate (OSEN), soil, forest, biodiversity (KGNU, ICE), urban ecology and environmental monitoring (KGNU, OSEN). They also represent all the Ukrainian regions and types of research training facilities (universities and a research institute of the National Academy of Science).

The INTENSE Doctoral School is expanding and currently includes eight member organisations in Ukraine, with three more partners pending. All the INTENSE members will receive access to most of SUNNY results, and interact over the development tasks. However, in the current stage they were not incorporated into the SUNNY partnership with a formal status of associate partners.

What is the task allocation and how does it reflect the commitment and active contribution of all participating organisations (including the associated partners, if applicable) ?

1. CZU (PC) will be responsible for:

- Coordinating all project activities and being the liaison with the NA
- Coordinating actions for the development of WP2 and co-development of WP5
- Organising TPM 1 in the Czech Republic
- Participating in various QA and Dissemination Activities
- Organising a Multiplier Event in the Czech Republic

2. EMU (P2) will be responsible for:

- Coordination of WP3

participation in other Projects, therefore they lead the e-Tools activity in WP4. Design and implementation of the Project Management Plan where all milestones and project activities will be described in detail.

- Organising TPM3 in Estonia
- Organising a Multiplier Event in Estonia
- Participating in various QA and Dissemination Activities

3. UniCam (P2) will be responsible for the SUNNY Project exploitation and quality assurance. The expertise and experience of UniCam in Erasmus+ programmes makes them the ideal partner to be in charge of the quality assurance of the project.

INUK will:

- Develop and implement the project Quality Assurance Plan. Through monitoring tools, UniCam will be able to ensure that all activities/operations of the consortium are carried out in the best possible manner.
- Organising a Multiplier Event in Italy
- Organising TPM2 in Italy
- Participating in various QA and Dissemination Activities

4. OSEN (P4), KGNU (P5), SumDu (P6) and ICE (P7) will be responsible for:

- implementation of cross-cutting activities within the WPs
- development of results within the respective WPs

- Organising a Multiplier Event in Ukraine
- Participating in various QA and Dissemination Activities

Describe the mechanism for coordination and communication between the participating organisations (including the associated partners, if applicable)

In addition to e-mail and face-to-face meetings, partners will use digital means to support effective cooperation and communication. Partners will make use of Google Drive to share and exchange ideas and information and to support effective project management and control. By using such tools, partners will be able to upload and share and exchange ideas, core documents and plans. This will also ensure transparency and support effective communication. According to the Project Green Policy, all exchanges of documentation will be done electronically and partners will be prompted to avoid printing unless absolutely necessary.

The arrangements described above (i.e. project methodology) provide a framework to support effective communication, reporting and collaboration. The bilateral agreements, project handbook, the planned template reporting tools and the division of tasks and responsibilities encourage accountability. Named partners will lead on dissemination, evaluation, sustainability and Project Results, thereby avoiding confusion. Partners will submit a bi-annual progress report covering results, dissemination and evaluation activities plus financial records: this will enable CZU and the Project Steering Group (PSG) to identify 'bottlenecks' and potential problems at an early stage.

Transnational project meetings will take place at key stages of the project enabling timely reporting of project progress and results (see above for details on the timing and goal of meetings). Prior to meetings, partners will hold an online planning session to agree on the agenda and partner actions/responsibilities. Between meetings, partners will hold online meetings to plan, share and collaborate on activities: sometimes all partners will participate and other times just specific ones. The PSG will meet periodically to monitor and review project progress: where necessary, CZU will agree on corrective action plans with a partner(s) in the event of underperformance or other problem. Partners will also use the Erasmus+ external reporting requirements (e.g. Interim and Final Report and the updating of the Mobility Tool) to contribute to effective project monitoring, communication and cooperation (e.g. feedback from the NA will be shared with partners).

Partners will ensure the effective and continuous communication of project results and progress with key stakeholders by implementing the actions set out in the project dissemination plan. The plan will specify strategies to inform and update the different stakeholder target groups.

Finally, the SUNNY Consortium will make use of the Erasmus+ Results Platform in order to share the project results with all contacts of the team, project target groups and stakeholders as well as other organisations who may plan to build on them in the future in the context of other projects.

Describe the extent to which the involvement of a participating organisation from a third country not associated to the Programme brings an essential added value to the project (if this condition is not fulfilled, the participating organisation from a third country not associated to the Programme will be excluded from the project proposal at assessment stage).

The participation of participation organisations from the third country (Ukraine) is essential for this project due to the very nature of this action, which has been developed to respond to the sectoral specific priority "Supporting Higher Education institutions in their cooperation with Ukrainian counterparts to respond to the war in Ukraine". Although the primary objective is to build the cooperation capacity of EU HEIs, in order to achieve sustainable results and bring about real change, a substantial part of the action needs to be implemented in Ukraine and jointly with Ukrainian partners. This is especially important because the situation in Ukraine is very dynamic, and we expect that close coordination with partners will be essential, and agile management instruments will have to be applied.

Impact

How are you going to assess if the project objectives have been achieved?

The SUNNY Project objectives will be monitored and measured against the following indicators:

- The Project Deliverable completion and quality standard achievement; timely submissions and always against the Quality Assurance Indicators
- Number of people reached by dissemination through the project's social media, website and e-newsletters; this will allow the consortium to quantify an estimation of the number of beneficiaries
- Satisfaction of all project KPIs; Project KPIs will be established in the Project KPI Sheet in the context of the Quality Assurance Strategy. The Sheet will include all activities, deadlines, reports, activity participants, social media targets, website userbase targets and more.
- Target group, public and stakeholder engagement with project social media and website.
- Successfully carrying out the Training-of-Trainers activity and receiving feedback from all participants.
- Successfully carrying out the WP4 Carbon Neutralising Platform and e-Tools and receiving feedback from the stakeholders.
- External evaluation of WP4 Curriculum and reaching the minimum established score
- Successful organisation of multiplier events (MEs) and Training-of-Trainers activity (high attendance and engagement)
- Number of stakeholders expressing interest in participating in the SUNNY training after the completion of the project
- Feedback from the Czech NA (interim and final reports) regarding management aspects as well as results of the project.

Explain how you will ensure the sustainability of the project: How will the participation in this project contribute to the development of the involved organisations in the long-term? Do you plan to continue using the project results or implement some of the activities after the project's end?

O2.1: Launching blended e-learning site by month 14 and enrolling 40 students and 30 academic staff annually, e-science suits by month 14 and enrolling 40 students and 30 academic staff annually, e-portfolio by month 14 and enrolling 29 PhD students by month 36;

O2.2: the arrangements will be completed by month 20 and will be in use by 40 students and 30 academic staff annually within SUNNY and 60 students and 40 academic staff in total;

O2.3: Running the offline event at CZU by month 10 with 19 participants from Ukrainian and 6 from EU partners, with overly positive feedback overly positive; running the online event by month 12 with 35 participants, with overly positive feedback from the participants.

O3.1: course contents (in blended learning formats) worth 10 ECTS are developed by month 20, and submitted to relevant approval or accreditation procedures by month 24, with largely positive external reviews and reviews by the third EU partner institution received at the time of submission; at least 40 hours of online teaching provided by EU partners;

O3.2: 8 PhD students exploring in their thesis work issues of war impact preparedness and the management of the aftermath (by Month24) with various forms of support by European partners, including at least 3 co-supervision arrangements, and successfully passed their interim progress review before the end of the project;

O3.3: Running the offline training for trainers and development workshop at UniCam by month 10 with 10 participants from Ukrainian and 6 from EU partners, and summer school for students by month 30 and 16 participants from Ukraine and 6 from EU partners with overly positive participant feedback overly positive; running the webinar in Ukrainian starting month 16 with at least 12 sessions and 160 participants, with overly positive participant feedback.

O4.1: running the webinar in Ukrainian under the topic "Integrating Adaptation Activities into Distance Teaching and Learning Methods to Meet Wartime Challenges" starting month 16 with at least 10 sessions and 160 participants.

O4.2: Running the online training for trainers under the SUNNY Disaster and Resilience Knowledge HUB using the prototype of the geospatial portal of environmental data at UniCam by month 24 with 10 participants from Ukrainian and 6 from EU partners with implementation of free digital tools for sustainable education and science in Ukraine digitally to share experiences and inspire innovation and new ways of working in collaboration with EU partner organisations.

O4.3: Introduction of virtual laboratories and training for trainers by month 36 with 10 participants from Ukrainian and 6 from EU partners

Please describe the potential wider impact of your project: Will the impact be equally spread among the involved organisations? What is the potential impact of the project on each participating organisation as a whole? Are there other groups or organisations at local, regional, national or European level that will benefit from your project? Please explain how.

The impact generated by the project will be spread among all the involved participants, although in a different way. In the EU segment of the partnership the impacts as a whole will have to do with creating capacity to support doctoral studies in Ukraine in environmental subjects. In the Ukrainian segment it is about getting supported in day-to-day research training routine as well as about creating capacity for making use of this support, for developing research and teaching expertise in emerging areas, and for maintaining competitiveness and ensuring future development. Within either of the segments of the partnership (the European and Ukrainian ones) the impact is expected to be spread evenly, as reflected in task distributions, even access to deliverables, which are addressing very similar needs.

Both in the EU, and in particular in Ukraine, the project impact will reach groups outside the project consortium as well. In Ukraine this concerns, most of all, the participants of the doctoral school INTENSE, which are not involved in the SUNNY project. The INTENSE school currently includes five further partners - universities or their faculties or institutes, and 3 more partners are pending (including the SumDU participating in the SUNNY). INTENSE partners, which are not involved to SUNNY, will have access to such SUNNY deliverables as ICT system hosted by CZU, online training sessions, webinars, curriculum contents created under SUNNY, and some of the resources provided by SUNNY to students and supervisors. Technically, they will receive nearly the same impact as formal SUNNY partners in Ukraine. Other partners in Ukraine benefiting from the project are other HEIs using open access SUNNY contents (open components of the blended learning), and accessing the webinar on emerging areas of environmental expertise. The same deliverables will be accessible to a broader number of users representing NGOs and public bodies, which are in need of new tools and solutions for managing war aftermath.

At the national level SUNNY will set an example of a structural solution to the problems currently experienced by doctoral programs and their participants in Ukraine. The elements of SUNNY activities can be applied for research training in other fields as well. Likewise, EU organisations outside the SUNNY consortium could make use of the SUNNY strategy and solutions. Other benefits to EU organisations outside SUNNY is that they will be able to use the infrastructure created by SUNNY to provide their support to Ukrainian HEIs and research organisations, e.g. through the cooperation on doctoral supervision (or provision of other resources for thesis progression) and teaching. Some of the partners preliminary willing to contribute have already been identified (e.g. see target group descriptions).

Please describe your plans for sharing and promoting the project results: How do you intend to make the results of your project known within your partnership, in your local communities and in the wider public? Who are the main target groups you intend to share your results with?

All the modalities of SUNNY dissemination will be summarised in the dissemination plan. The main dissemination tool will be the project website and social media accounts. The central dissemination event will be the conference co-hosted by CZU and EMU by the end of the project.

Within the SUNNY partnership (and its extended partnership including 5 further INTENSE partners) the results will be disseminated, most of all to Ukrainian students (current and perspective) and academic staff (in particular potential supervisors), administrators dealing with research and curriculum planning, and for international relations. The students and supervisors have to be aware, most of all, of the opportunities brought by SUNNY, and how they can be used. This will be achieved through university media (including social media), mailing lists, the project website, and partner websites publishing the latest SUNNY updates, such as announcements and reports from events, information about new courses, ICT and organisational solutions developed or projected. All the SUNNY offline training events will be followed up by workshops at UA partners (online or offline) where the participants will share their experiences. Each partner will be responsible for preparing regular features (at least twice a year) for the project website (and broader dissemination) covering various aspects of SUNNY's support to PhD students and supervisors. Likewise, EU partners will be distributing such information to the academic staff and the student body in order to raise the awareness of the issues addressed by SUNNY and call for more support.

Local communities will be less exposed to the SUNNY dissemination due the nature of the project. SUNNY however will target various layers of scholarly communities. In Ukraine this will be in order to consolidate support to the key topics explored by SUNNY, and to attract more institutional partners to the National Doctoral School INTENSE, and more participants to open call and access SUNNY products, such as the webinar and open access components of SUNNY blended learning. In the partner EU countries this will raise the awareness of the issues addressed by SUNNY and to attract various forms of further support from individual scholars and their affiliations. This will be achieved through updates and special features circulated in social media (such as FB, LinkedIn, Twitter) and professional sites, mail serves and communications on professional events, including special sessions on conferences. The final SUNNY conference will showcase the capacity and expertise of the SUNNY consortium, and expectedly attract more users to open access resources, and more interest in the school INTENSE. Similarly, graduated students will be targeted nationwide in Ukraine in order to attract more youth to doctoral studies programs in environmental subjects (in particular at INTENSE partners), and in the EU in order to secure volunteer support.

Workpackage activities

In addition, subcontracting of services is allowed as long as it does not cover core activities on which the achievement of the objectives of the action directly depends. In such cases, the amount budgeted for subcontracting must be included in the description of the activities covered by the subcontract.

Work package n°1 Project Management

How will the progress, quality and achievement of project activities be monitored? Please give information about the involved staff, as well as the timing and frequency of the monitoring activities.

1. Project Coordinator CZU (PC) will direct partners to submit bi-annual progress reports on results, dissemination and financial performance. A Project Steering Group (PSG) comprised of CZU and all partners will meet periodically online to examine the progress of the project deliverables and apply remedies to problems preventing their smooth production. The PSG will also evaluate partner contributions and inform the coordinator accordingly to take action in case of underperformance. The PSG ensures the SUNNY project delivers value for money and the expected results. Furthermore, Project Implementation will be reviewed bi-annually by the CZU through internal reporting which will contain partner Work Package Progress and Financial Management, all supported by relevant documentation. Project progress will also be reviewed annually and in line with the drafting of the Interim and Final Reports by CZU. CZU will also routinely update the Mobility Tool which will serve as another form of monitoring, providing both formative and summative evaluation. Partners will use the results of monitoring and evaluation to plan and improve the delivery of the project.

Staff involved in Project Management Activities on behalf of CZU will be:

- Assoc. Prof. Dr Hynek Roubík; Hynek Roubík is a Associate Professor at the Department of Sustainable Technologies of the Czech University of Life Sciences in Prague. He is an expert in organic waste management and sustainable technologies with extended experience in coordinating large-scale projects. He will be in charge of coordinating all activities and reporting on the SUNNY Project.

Additionally, he will coordinate the development of WP2 which refer to the definition of the CT and organisational solutions for doctoral studies.

2. Project progress, quality and achievement of activities will be monitored using a set of achievement indicators. EMU (P2) will draft the Quality Assurance Plan where all project KPIs will be listed, and targets will be set. Project KPIs will be reviewed at different stages of project implementation depending on their type and which activity they are linked to. The Quality Assurance Plan will be reviewed and updated during the entire project implementation and EMU will update the status of KPIs according to the Project Gantt chart and completion of activities.

Staff involved in Project Management/Quality Assurance Activities on behalf of EMU (P2) will be:

- Dr Anton Shkruba; Dr Shkruba is an experienced researcher with expertise in research methodologies. He will be coordinating the Drafting of the SUNNY Quality Assurance Plan and its implementation. The QA Plan involves bi-annual Project Implementation Surveys where partners will give feedback regarding their experience in the project, QA reports, Deliverable External and Internal Evaluations, as well as the Implementation and Monitoring of the SUNNY results.

How will you ensure proper budget control and time management in your project?

The applicant organisation CZU (PC) holds the responsibility for managing financial matters within the project consortium as well as towards the European Commission and the Czech National Agency. CZU will sign bilateral agreements with each partner individually; using the bilateral agreements, each partner organisation and coordinator CZU will agree on the:

1. Total budget allocated to the partner;
2. Role and responsibilities of the partner;
3. Reporting obligations of the partner;
4. Payment schedule;
5. Conditions that need to be satisfied before payments.

Budgets will be distributed to partners by the Coordinator, and each partner will receive an appropriate amount as per the planned activities and staff involvement set out in the application. After receiving their instalments, partners will be responsible for managing their own budgets and will be required to maintain accurate records of how they have used their budgets. Partners will submit bi-annual financial reports using a template provided by the coordinator.

2. Time Management:

CZU will devote time to explaining each partner's responsibilities, the Project Management Plan and SUNNY Project Gantt Chart. Each partner will name one member of staff who will be responsible for administrative and financial matters and one member of staff who will be responsible for project activities. A Google Drive folder will be created where all project information will be placed:

- Agreements
- Budget documents
- Application form
- Project timetable
- Project Management Plan

- Dissemination Plan
- Quality Assurance Plan
- Project identity templates/logo samples
- Timesheets

For all the above tasks, Partners 1-5 will receive €160 and Project Coordinator will receive €400 per month.

Total Budget for Project Management is €28800

3. Meetings:

To ensure avoidance of unexpected problems and to also ensure timely corrective measures, the Project Coordinator will host monthly online review meetings with the consortium and also meetings with individual partners when necessary. Finally, the consortium plans to carry out 4 physical Transnational Partner Meetings at critical points of the project implementation for team-building, project review and coordination purposes.

TPM information:

- Czechia; TPM1 Kick-off meeting, January 2024
- Estonia; TPM 2, June 2024
- Italy; TPM 3, October 2025
- Italy; TPM 4, June 2026

Total PM Budget Allocation to Travel for TPM Purposes per Partner:

- a) CZU (PC); €4000 total budget for 5 mobilities to 3 TPMs.
- b) EMU (P1); €5600 total budget for 7 mobilities to 4 TPMs.
- c) UniCam (P2); €3200 total budget for 5 mobilities to 4 TPMs.
- d) OSENU (P3); €2400 total budget for 3 mobilities to 3 TPMs.
- e) KKNNU (P4); €2400 total budget for 3 mobilities to 3 TPMs.
- f) SumDu (P5); €2400 total budget for 3 mobilities to 3 TPMs.
- g) UCE (P6); €2400 total budget for 3 mobilities to 3 TPMs.

Total Budget for TPMs is €22400

What are your plans for handling risks for project implementation (e.g. delays, budget, conflicts, etc.)?

In preparation for the project launch, the consortium has identified the following potential risk scenarios that although unlikely to occur, are still worth to be taken into consideration in order to establish plans to counter them.

1. Delays and missing deadlines – the project lead partner will be monitoring progress through the monitoring tools that will be developed for this project. Partners who might require assistance in order to carry out their tasks/activities and meet the deadlines will be offered assistance by the rest of the consortium.
2. Pandemic or other Crisis - The consortium does not expect any impact on the SUNNY project implementation; however, the consortium will make the necessary steps to prepare for online meetings should any issues arise due to further escalation of the problem. In a case where any changes will be made to the schedule or events/meetings, the NA will be consulted.
3. Partner organisation staff changes – in such cases, partner organisation staff who are involved in the project will be replaced by individuals with appropriate experience and qualifications. The lead partner or someone appointed by them will be responsible to update new staff and acclimate them to the project operations.
4. Consortium partner withdrawal – in a case where a partner has to withdraw from the consortium for any reason, the National Agency will be contacted in order to resolve the issue as soon as possible. Partner replacement or reallocation of duties among the remaining partners can be options to consider.
5. Insufficient Deliverable results – in the unlikely case where feedback and reviews deem the results of deliverables insufficient, the consortium will immediately carry out corrective measures and edit the material.
6. Partner conflict – in cases of conflict between consortium partners, the Conflict Management Policy (developed in the Quality Assurance Plan) will be implemented.
7. War conflict – the consortium will be closely monitoring develop

How will you ensure that the activities are designed in an accessible and inclusive way?

SUNNY will make provisions to ensure accessible and inclusive activities for both the partner organisations and target groups.

1. Project Management:

All transnational meetings will be held during times when travel or other restrictions allow the physical presence of the partner delegates. The meetings will be held in a hybrid form to allow the participation of those who cannot physically be present for whatever reason. A MS teams link will be distributed by the coordinator for this reason prior to each TPM. Furthermore, online meetings will be held on mutually agreed dates and times to ensure the participation of all partner organisations.

2. Dissemination/Multiplier events:

The dissemination of project activities and results will be made electronically to all target groups, thus ensuring access to them by all interested parties. Multiplier events are planned to be held physically. All partners hosting these events will have a protocol in place and make arrangements with venue management to assist any participants with accessibility problems wishing to attend. To maximize the accessibility and inclusiveness of these events, provision for live-streaming broadcasts will be made. This will also multiply the outreach of these events.

3. Production of Deliverables

To increase the participation of the target groups in the production of the project deliverables, all surveys/questionnaires will be made electronically.

4. Training/Learning activity:

As in transnational meetings, the Training/Learning activity will be organised to take place when restrictions allow the physical presence of the partner delegates. In the unlikely event, some delegates fail to be present, the physical part of the blended activity will be followed online by those delegates.

How does the project incorporate the use of digital tools and learning methods to complement the physical activities and to improve cooperation between partner organisations?

The SUNNY Project will make use of a range of Digital Tools and Methods. Here are described those apart from other digital tools, which will be developed during the other WPs (described in respective WPs) and SUNNY project itself:

1. Project Management:

- Project Coordinator CZU (PC) will draft the Digital Project Management Plan document.
- CZU will prepare digital templates for submission of the Project Implementation and Financial bi-annual reports (x4)
- Templates and submission of the Project Implementation and Financial Interim Reports to the National Agency (Project Implementation and Financial Reports, alongside corresponding documentation) (x1)
- Project Coordinator CZU will utilise digital templates for the submission of the Project Implementation and Financial Final Report to the National Agency (Final Report alongside corresponding documentation) (x1)
- Preparation of digital agendas at transnational project meetings (x4)
- Monthly Online Meetings using MS Teams conference software
- Digital Minutes documents from additional monthly on-line meetings
- Setup of Project Google Drive for the exchange of documents and uploading materials

2. Quality Assurance, Monitoring and Evaluation:

- Drafting and implementation of a Digital Quality and Evaluation Plan document by EMU (P2)
- Digital Project Risk Register template
- Drafting of a Digital QA KPI Monitoring Sheet
- Digital Questionnaires and Reports of TPMs by EMU (Google Forms)
- Digital Evaluation Reports of Project Progress on a bi-annual basis, every 6 months (x4)
- Gathering and processing participant feedback through bi-annual digital evaluation surveys
- Drafting of Digital Evaluation Templates for: TPMs, Project Implementation, Deliverables
- Digital SUNNY Project Green Policy document

How does the project incorporate green practices in different project phases?

The SUNNY Project Green Policy encompasses the application of practices under the 'Project Quality Assurance' umbrella that will enable the consortium to assess the environmental impact of project activities and minimise the waste of materials and energy. Specifically:

1. Project Management Activities: All communication between partners will be paperless and therefore all documents will be exchanged in electronic form.

- Interim and Final Reports
- Meeting Minutes/Notes
- Monthly Meeting Agendas
- Contracts
- Project Implementation Questionnaires/Feedback Forms
- Evaluation Questionnaires

2. Quality Assurance Activities will be performed using electronic methods:

- The QA Partner will maintain the Green Practices Register, with which all potential CO₂ emitting activities will be entered and evaluated, in order to minimise CO₂ emissions.
- Use of Google Forms in order to collect all necessary results to help the evaluation process.
- Electronic KPI Monitoring Sheet, uploaded on the Project Google Drive.
- QA reports will be in electronic form

3. Transnational Project Meetings (TPMs) & Training/Learning Activity:

- Means of Transport: For their air or inland transportation needs, to give preference to or use means of transport that emit fewer CO₂ than the average of the same type, which is a standard policy of FTA-CZU, which will be replicated to other partners
- Accommodation: Choice of accommodation as near as possible to the meeting venue. Furthermore, it is recommended to use sustainable accommodation.
- Tickets (flight, bus, etc.): Use tickets or boarding passes only in electronic form.
- Packaging: Use reusable or recycled paper bags if items need to be packaged. Avoid the use of disposable plastic.
- 4. Implementation of Work Packages: For the implementation of WPs, partners will use online or electronic surveys, electronic means for interacting with the target groups as added below:
 - Digital Survey Reports and sharing on the Google Drive
 - Internal and External Online Evaluation Questionnaires

- WP Surveys; partners will distribute their national surveys in electronic form (Google Forms)
- WP Summaries, Reports and Results will be in electronic form
- 5. Dissemination/Multiplier Events; All documents for dissemination will be produced and distributed in electronic format:
 - e-Leaflets; e-Leaflets will be distributed electronically. Printing leaflets will be avoided (therefore not budgeted for) and in cases, where Partners deem printing as a necessity for dissemination purposes, only as many as needed will be printed using recyclable material (at their own expense).
 - Announcements and invitations to Multiplier Events will be distributed only in electronic form
 - Evaluation of Multiplier Events will be electronically using Google Forms
 - Dissemination Reports will be in electronic form
 - Full exploitation of electronic dissemination pathways (social networking accounts, electronic newsletter, logo)

How does the project encourage participation and civic engagement in different project phases?

Civic engagement and participation are about being involved in and caring about your community. Climate Change requires civic engagement and participation as it concerns and affects all. It is the result of the inefficient use of physical resources by all people on our planet. Therefore, it is the responsibility of all citizens to be actively involved in promoting sustainability. SUNNY will widen the scope of its dissemination activities to maximize its outreach not only to the target groups but also to the public. The SUNNY Dissemination Plan will include activities such as:

1. Participate and/or contribute to physical or virtual events organised by local/regional governments or groups on environmental protection:
 - Strengthen the impact of these events by making the activities of SHIFT more visible to the public.
2. Showcase the good work of outstanding contributions to the environment either by citizens or groups in the project's social media and website (share photos and descriptions of this kind of work):
 - It is inspiring to see other groups or citizens doing good work in the community. It's also a good feeling to be duly recognized for the work being put into a cause. So, to promote citizen engagement is to make sure to recognize the good works of citizens, volunteer groups, and other people making a positive impact on the community.
3. Promote opportunities for community participation:
 - Sometimes, the only thing preventing citizens from participating more in their communities is simply not knowing what opportunities are out there. SUNNY will enhance the visibility of environmental protection opportunities through its website and/or social media.

Grant amount allocated to Project management

49 000,00 €

Work package

Work package n°2 - ICT and organisational solutions for doctoral studies

What are the specific objectives of this work package and how do they contribute to the general objectives of the project?

The WP is led by CZU and designed to contribute to the general objective (1), which is to ensure the resilience of learning infrastructure and resources of doctoral training in environmental sciences, policy, management and technology through the development of ICT and organizational solutions providing for uninterrupted access of doctoral students in Ukraine to credit mobility, supervision, graduation and networking solutions. Accordingly, the specific WP objectives are set to:

- (O2.1) to support uninterrupted access to e-resources through the development of e-services (blended learning courses, e-science modules, e-portfolio) for the doctoral school INTENSE and its partners on the servers of CZU;
- (O2.2) to enhance the educational offer and ensure the access to the best European and international practices by linking to collaborative platforms and and other network learning resources available through EU SUNNY partners;
- (O2.3) to enhance the capacity of academic, technical and administrative staff at EU and UA partners in making use of such arrangements through online and offline training events (in English and Ukrainian).

What will be the main results of this work package?

The main results will include:

(R2.1) E-services (blended learning courses, e-science modules, e-portfolio) for the doctoral school INTENSE and its partners developed and hosted on the servers of CZU; the system will be launched by month 14 and will be in use by 40 students and 30 academic staff annually within SUNNY and 60 students and 40 academic staff in total;

(R2.2) ICT and organisational arrangements for providing access for UA partners (and broader INTENSE network) to collaborative platforms and and other network learning resources available through EU SUNNY partners, including virtual laboratories; the arrangements will be completed by month 20 and will be in use by 40 students and 30 academic staff annually within SUNNY and 60 students and 40 academic staff in total;

(R2.3) 2 training events (offline at CZU in English by M10, and online in Ukrainian by M12) to enhance the capacity of academic, technical and administrative staff at EU and UA partners in making use of such arrangements through online and offline training events (in English and Ukrainian); the training events will touch technical and organisational issues of the created systems and arrangements, as well as various pedagogical aspects of e-learning and other e-resources; the offline event will also aim at training the trainers for the online event; the online event will include the sessions common for all the participants as well as customised ones targeting academic, technical, and and administrative staff, and specifically addressing various issues within their competence; the offline training would enroll 6 participants from EU and 19 from UA partners; online training will enroll 35 participants from Ukraine.

What qualitative and quantitative indicators will you use to measure the level of the achievement of the work package objectives and the quality of the results?

O2.1: Launching blended e-learning site by month 14 and enrolling 40 students and 30 academic staff annually, e-science suits by month 14 and enrolling 40 students and 30 academic staff annually, e-portfolio by month 14 and enrolling 29 PhD students by month 36;

O2.2: the arrangements will be completed by month 20 and will be in use by 40 students and 30 academic staff annually within SUNNY and 60 students and 40 academic staff in total;

O2.3: running the offline event at CZU by month 10 with 19 participants from Ukrainian and 6 from EU partners, with participant feedback overly positive; running the online event by month 12 with 35 participants, with participant feedback overly positive.

Please describe the tasks and responsibilities of each partner organisation in the work package.

CZU - overall coordination, hosting the offline and online events, contribution to all the development tasks;
EMU - contribution to training events, contribution to all the development tasks;
UniCam - contribution to the offline event, contribution to all the development tasks;
OSEN - co-lead of the WP, participation in all the training events, co-development contribution to all the development tasks, co-organisation of training events;
KKNU - participation in all the training events, co-development contribution to all the development tasks;
SumDU - participation in all the training events, co-development contribution to all the development tasks;
ICE - participation in all the training events, co-development and review of e-portfolio.

Please explain how you define the amount dedicated to the work package and how the work package is cost-effective ?

WP2 grant is 105000 EUR.

CZU - overall coordination, hosting the offline and online events, contribution to all the development tasks (35

EMU - contribution to training events, contribution to all the development tasks;
UniCam - contribution to the offline event, contribution to all the development tasks;
OSENU - co-lead of the WP, participation in all the training events, co-development contribution to all the development tasks, co-organisation of training events;
KKNU - participation in all the training events, co-development contribution to all the development tasks;
SumDU - participation in all the training events, co-development contribution to all the development tasks;
ICE - participation in all the training events, co-development and review of e-portfolio.

Activities (2 - ICT and organisational solutions for doctoral studies)

In the following sections, you are asked to provide details about each activity of the work package.

You are asked to provide information about each planned activity as a whole (e.g. its venue, duration, estimated number of participants etc.), to define the activity's lead organisation, and optionally to list the other participating organisations. The lead organisation is typically the one organising the activity. The other participating organisations are all other project partners who will also take part in the particular activity. The estimated activity start and end dates can be changed during implementation.

Please specify each of the planned project activities in the table below

Activity title	Venue	Estimated start date	Estimated end date	Leading Organisation	Participating Organisations	Amount allocated to activity (EUR)	Expected results
Set of terms of references for WP	Czech Republic	01/09/2023	01/03/2024	Applicant - Česká zemědělská univerzita v Praze (E10209207 - CZ)	EESTI MAAULIKOOL (E10208772 - EE) , Institute of Ecology of the Carpathians Natajyaal Academy of Ukraine (E10330593 - UA) , Odessa State Environmental University (E10167368 - UA) , SUMY STATE UNIVERSITY (E10174056 - UA) , UNIVERSITA DEGLI STUDI DI CAMERINO (E10208672 - IT) , V. N. Karazin Kharkiv National University (E10175429 - UA)	25 000,00	Set of terms of references for WP
Sunny research training system	Czech Republic	01/09/2023	01/12/2024	Applicant - Česká zemědělská univerzita v Praze (E10209207 - CZ)	EESTI MAAULIKOOL (E10208772 - EE) ,	25 000,00	SUNNY research training system: CZU will lead the development of the SUNNY research training system (blended learning courses, e-science modules, e-portfolio) for the doctoral school INTENSE; the system will be hosted and maintained by CZU

Institute of Ecology of the
Carpathians Natajyaal
Academy of Ukraine
(E10330593 - UA) ,

Odessa State
Environmental University
(E10167368 - UA) ,

SUMY STATE
UNIVERSITY (E10174056 -
UA) ,

UNIVERSITA DEGLI
STUDI DI CAMERINO
(E10208672 - IT) ,

V. N. Karazin Kharkiv
National University
(E10175429 - UA)

EESTI MAAULIKOOL
(E10208772 - EE) ,

Institute of Ecology of the
Carpathians Natajyaal
Academy of Ukraine
(E10330593 - UA) ,

Odessa State
Environmental University
(E10167368 - UA) ,

SUMY STATE
UNIVERSITY (E10174056 -
UA) ,

UNIVERSITA DEGLI
STUDI DI CAMERINO
(E10208672 - IT) ,

V. N. Karazin Kharkiv

Development and
implementation of
training events

Czech
Republic

01/09/2023

01/06/2024

Applicant - Česká
zemědělská univerzita
v Praze (E10209207 -
CZ)

35 000,00

Series of training events

			National University (E10175429 - UA)				
			Institute of Ecology of the Carpathians Natajyaal Academy of Ukraine (E10330593 - UA) ,				
Equipment and software procurement Ukraine for UA partners	01/10/2023	01/05/2024	Applicant - Česká zemědělská univerzita v Praze (E10209207 - CZ)	Odessa State Environmental University (E10167368 - UA) ,	25 000,00	Procured software and IT e	
				SUMY STATE UNIVERSITY (E10174056 - UA) ,			
				V. N. Karazin Kharkiv National University (E10175429 - UA)			

110 000,00

Description of the activities

Describe the content of the proposed activities.

A2.1 Development of terms of detailed reference for the WP: the set of terms of references for WP results will be developed by M6 and kept open to amendments till the end of the project, as the situation is dynamic and unpredictable; CZU will lead a survey to be filled in by EU and Ukrainian partners that will be discussed during an online workshop by month 5; the final (open to edits) version of the ToRs will be ready by month 6.

A2.2 SUNNY research training system: CZU will lead the development of the SUNNY research training system (blended learning courses, e-science modules, e-portfolio) for the doctoral school INTENSE; the system will be hosted and maintained by CZU; the specific design features will be set in the ToR (A2.1), the delivery of the system is projected for the month 14.

A2.3 Development of organisational arrangements: according to the ToRs (A2.1) the team led by CZU will be developing specific organisational and institutional arrangements for Ukrainian partners in order to access learning and networking opportunities within cooperation networks EU partners are involved in, such as BOVA-NOVA, AGRINATURA and ELLS; CZU will explore options for formal and informal arrangements between the networks and INTENSE (or individual UA partners); it is expected that the students and teachers (where relevant) of partner UA organisations will be able access the arrangements by month 20.

A2.4 Development and implementation of training events: CZU will lead development and implementation of an offline training event in English at CZU (mostly planned as "training for trainers" partly targeting the trainers of the online training) by month 10, and an online training event in English by month 12; the training events will touch technical and organisational issues of the created systems and arrangements, as well as various pedagogical aspects of e-learning and other e-resources.

A2.5 Equipment and software procurement: For UA partners.

Explain how this activity is going to help reach the WP objectives.

A2.1 will help to fine tune the objectives given the current situation, and will provide detailed guidance for their implementation.

A2.2 directly corresponds to O2.1, and will develop `war-resistant` ICT solutions as provided by the objective.

A2.3 directly corresponds to O2.2, and will develop organisational solutions for better research training and internationalisation of UA partners.

A2.4 directly corresponds to O2.3, and will create capacity of EU and UA partners in using the developed ICT and organisational solutions via training events.

A2.5 will create technical capacity for the implementation of O2.1 at EU and UA partners.

Describe the expected results of the activities.

A2.1: The set of terms of references for WP results will be developed by M6 and kept open to amendments till the end of the project, as the situation is dynamic and unpredictable; it will be based on a survey to be filled in by EU and Ukrainian partners, and the outcomes of a follow up workshop (by month 5); the final (open to edits) version of the ToRs will be ready by month 6; the set of ToRs will be available as a c.a. 10 page report.

A2.2: SUNNY research training system will support blended learning courses, e-science modules, and e-portfolio for the doctoral school INTENSE; the system will be hosted and maintained by CZU; the specific design features will be set in the ToR (A2.1), the delivery of the system is projected for the month 14.

A2.3: The results will include specific organisational and institutional arrangements for Ukrainian partners in order to access learning and networking opportunities within cooperation networks EU partners are involved in, such as BOVA-NOVA, AGRINATURA and ELLS; CZU together with EU partners will prepare options for formal and informal arrangements between the networks and INTENSE (or individual UA partners) by month 20.

A2.4: an offline training event in English at CZU (mostly planned as "training for trainers" partly targeting the trainers of the online training) by month 10; an online training event in English by month 12; the training events will touch technical and organisational issues of the created systems and arrangements, as well as various pedagogical aspects of e-learning and other e-resources.

A2.5: Equipment and software procurement for UA partners.

Expected number and profile of participants.

CZU: participants of development activities (names, relevant experience), participants of training events (total number and overall characteristic of their profiles)

EMU: participants of development activities include 2 members of university management concerned with doctoral training and research management, 2 academic staff and 2 educational technologists; 2 representatives of EMU will take part in training events as trainees (junior academic staff and an educational technologist).

UniCAM: participants of development activities

OSENU: participants of development activities include 2 members of university management concerned with the school INTENSE, research training, international cooperation, 1 academic staff (a dean of the relevant faculty), 1 educational technologist; 10 participants of training events (junior academic staff and IT specialists).

KKNU: participants of development activities include 1 member of the university management, 3 members of the academic staff, and 2 educational technologists; 10 representatives of KKNU will take part in the training events (junior academic staff, administrators and IT specialists).

Sumy State University (SumDU): participants of development activities include 1 member of the university management, 2 members of the academic staff, 1 administrator, and 2 IT specialists; 5 representatives of SumDU will take part in the training events (junior academic staff, administrators and IT specialists).

ICE: participants of development activities participants of development activities include 1 member of the institute's management, and 2 members of the academic staff; 8 representatives of KKNU will take part in the train

Please keep in mind that the Erasmus+ Programme is offering co-financing for your project. This means that the EU grant can only cover a part of the project costs, while the rest must be covered by the participating organisations either in form of additional funding, or in form of invested goods, services and work.

Work package n°3 - Curriculum contents and research addressing the preparedness to and aftermath of the war

What are the specific objectives of this work package and how do they contribute to the general objectives of the project?

This WP is led by EMU and designed to contribute to the general objective (2), which is to support resilience to war impacts and post-war recovery of Ukraine through the development of research and teaching expertise in the areas critical important for environmental and socioeconomic sustainability, such as enhancing disaster preparedness through “build back better”, the development of resilient and autonomous energy systems, war damage assessment, as well as restoration and recultivation of ecosystems, food systems and settlements. Accordingly, the specific WP objectives are set to:

- (O3.1): to ensure the availability of relevant curriculum deliverables (new disciplines and existing disciplines updated with new modules as well as teaching and learning materials) addressing the issues of war impact preparedness and the management of the aftermath through their co-development by EU and Ukrainian partners;
- (O3.2) to encourage society-relevant research and research training in Ukraine through support to PhD research and supervision addressing the issues of war impact preparedness and the management of the aftermath through co-supervision, training and resource support to Ukrainian PhD students and supervisors by EU partners;
- (O3.3) to enhance the capacity of academic staff and PhD students at EU and UA partners in issues of war impact preparedness and the management of the aftermath through online and offline training events (in English and Ukrainian).

What will be the main results of this work package?

The main results will include:

- (R3.1) New courses and new modules for existing courses (including teaching and learning materials in blended learning formats) addressing the issues of war impact preparedness and the management of the aftermath; the deliverables will be co-developed and co-piloted by EU and Ukrainian partners, and will be worth c.a. 10 ECTS.
- (R3.2) Co-supervised or otherwise supported PhD students exploring the issues of war impact preparedness and the management of the aftermath as a central or a minor focus of their PhD thesis work; such students and their supervisors in Ukraine will receive support from EU partners according to their respective expertise.
- (R3.3) 3 training events (2 offline at UniCam in English - a training and development workshop for online trainers and a summer school for students, and a webinar in Ukrainian) to enhance the capacity of academic staff and PhD students at EU and UA partners in issues disaster preparedness and the management of the aftermath through online and offline training events (in English and Ukrainian), with particular attention to war-related impacts.

What qualitative and quantitative indicators will you use to measure the level of the achievement of the work package objectives and the quality of the results?

- O3.1: courses contents (in blended learning formats) worth 10 ECTS are developed by month 20, and submitted to relevant approval or accreditation procedures by month 24, with largely positive external reviews and reviews by the third EU partner institution received by the time of the submission; at least 40 hours of online teaching provided by EU partners;
- O3.2: 8 PhD students exploring in their thesis work issues of war impact preparedness and the management of the aftermath (by Month24) with various forms of support by European partners, including at least 3 co-supervision arrangements, and successfully passed their interim progress review before the end of the project;
- O3.3: running the offline training for trainers and development workshop at UniCam by Month 10 with 10 participants from Ukrainian and 6 from EU partners, and summer school for students by month 30 and 16 participants from Ukraine and 6 from EU partners with participant feedback overly positive; running the webinar in Ukrainian starting Month 16 with at least 12 sessions and 160 participants, with participant feedback overly positive.

Please describe the tasks and responsibilities of each partner organisation in the work package.

- CZU - contribution to training events, contribution to all the development tasks, provision of various forms of support to PhD students (including co-supervision of at least 1 PhD student) and supervisors;
- EMU - overall coordination, hosting the webinar, contribution to all the development tasks, provision of various forms of support to PhD students (including co-supervision of at least 1 PhD student) and supervisors;
- UniCam - hosting the offline events, contribution to all the development tasks, provision of various forms of support to PhD students (including co-supervision of at least 1 PhD student) and supervisors;
- OSENU - participation in all the training events, co-development contribution to all the development tasks, hosting at least 2 PhD students with WP-relevant thesis topics;
- KKNU - co-lead of the WP, participation in all the training events, co-development contribution to all the development tasks, co-organisation of training events, hosting at least 2 PhD students with WP-relevant thesis topics;
- SumDU - participation in all the training events, co-development contribution to all the development tasks, hosting at least 2 PhD students with WP-relevant thesis topics;
- ICE - participation in all the training events, co-development of curriculum contents, hosting at least 2 PhD students with WP-relevant thesis topics.

Please explain how you define the amount dedicated to the work package and how the work package is cost-effective ?

The total WP3 budget is 95000 EUR.

For carrying out activities in the context of WP3 Methodology , each partner has been allocated a carefully calculated budget according to the number of days they will dedicate to each activity. The number of days allocated to each activity has been determined according to activity 'density' and duration. All partners will be involved in all activities.

Activities (3 - Curriculum contents and research addressing the preparedness to and aftermath of the war)

In the following sections, you are asked to provide details about each activity of the work package.

You are asked to provide information about each planned activity as a whole (e.g. its venue, duration, estimated number of participants etc.), to define the activity's lead organisation, and optionally to list the other participating organisations. The lead organisation is typically the one organising the activity. The other participating organisations are all other project partners who will also take part in the particular activity. The estimated activity start and end dates can be changed during implementation.

Please specify each of the planned project activities in the table below

Activity title	Venue	Estimated start date	Estimated end date	Leading Organisation	Participating Organisations	Amount allocated to activity (EUR)	Expected results
Set of ToRs for WP Estonia	01/09/2023	01/03/2024	EESTI MAAULIKOOL (E10208772 - EE)	Applicant - Česká zemědělská univerzita v Praze (E10209207 - CZ) ,	15 000,00	Report	
				Institute of Ecology of the Carpathians Natajyaal Academy of Ukraine (E10330593 - UA) ,			
				Odessa State Environmental University (E10167368 - UA) ,			
				SUMY STATE UNIVERSITY (E10174056 - UA) ,			
				UNIVERSITA DEGLI STUDI DI CAMERINO (E10208672 - IT) ,			
				V. N. Karazin Kharkiv National University (E10175429 - UA)			
New courses and new modules	Estonia	01/09/2023	01/09/2025	EESTI MAAULIKOOL (E10208772 - EE)	Applicant - Česká zemědělská univerzita v Praze (E10209207 - CZ) ,	61 000,00	New courses and modules
					Institute of Ecology of the Carpathians Natajyaal Academy of Ukraine (E10330593 - UA) ,		
					Odessa State Environmental University (E10167368 - UA) ,		
					SUMY STATE UNIVERSITY (E10174056 - UA) ,		
					UNIVERSITA DEGLI STUDI DI CAMERINO		

(E10208672 - IT) ,

V. N. Karazin Kharkiv National University
(E10175429 - UA)

76 000,00

Description of the activities

Describe the content of the proposed activities.

A3.1: The set of terms of references for WP results will be developed by M6 and kept open to amendments till the end of the project, as the situation is dynamic and unpredictable; it will be based on a survey to be filled in by EU and Ukrainian partners, and the outcomes of a follow up workshop (by month 5); the final (open to edits) version of the ToRs will be ready by month 6; the set of ToRs will be available as a c.a. 10 page report.

A3.2: 10 ECTS of new courses and new modules for existing courses (including teaching and learning materials in blended learning formats) according to the ToR (A3.1) and addressing the issues of war impact preparedness and the management of the aftermath; the courses will be submitted for approval or accreditation by month 24; the deliverables will be co-developed and co-piloted by EU and Ukrainian partners; EU partners will offer 40 hours of online reaching to help the piloting of the courses.

A3.3: 3 co-supervised and 12 otherwise supported PhD students, including 8 students exploring the issues of war impact preparedness and the management of the aftermath as a central or a minor focus of their PhD thesis work; such students and their supervisors in Ukraine will receive support from EU partners according to their respective expertise.

A3.4: a training and development workshop (in English) for online trainers from UA (webinar in Ukrainian) by month 10 (10 participants from Ukraine) at UniCam, and a summer school for students by month 30 (16 participants from Ukraine and 6 from EU partners) at UniCam; the events will address issues of disaster preparedness and the management of the aftermath, with particular attention to war-related impacts.

A3.5: A webinar in Ukrainian starting Month 16 with at least 12 sessions and 160 participants, addressing issues of disaster preparedness and the management of the aftermath, with particular attention to war-related impacts; the webinar will be hosted and moderated by EMU.

Explain how this activity is going to help reach the WP objectives.

A3.1 will help to fine tune the objectives given the current situation, and will provide detailed guidance for their implementation.

A3.2 directly corresponds to O3.1 in developing and supporting curricula addressing issues disaster preparedness and the management of the aftermath, with particular attention to war-related impacts.

A3.3 directly corresponds to O3.2 as it provides co-supervision and other forms of resource support to Ukrainian PhD students.

A3.4 directly corresponds to O3.3 through the development and implementation of a training and development workshop (in English) for online trainers from UA (webinar in Ukrainian), and a summer school for students addressing the issues of disaster preparedness and the management of the aftermath, with particular attention to war-related impacts.

A3.5 directly corresponds to O3.3 through the development and implementation of a webinar in Ukrainian addressing issues disaster preparedness and the management of the aftermath, with particular attention to war-related impacts.

Describe the expected results of the activities.

A3.1: The set of terms of references for WP results kept open to amendments till the end of the project, as the situation is dynamic and unpredictable; it will be based on a survey to be filled in by EU and Ukrainian partners, and the outcomes of a follow up workshop (by month 5); the final (open to edits) version of the ToRs will be ready by month 6; the set of ToRs will be available as a c.a. 10 page report.

A3.2: 10 ECTS of new courses and new modules for existing courses (including teaching and learning materials in blended learning formats) according to the ToR (A3.1) and addressing the issues of war impact preparedness and the management of the aftermath; the courses will be submitted for approval or accreditation by month 24; the deliverables will be co-developed and co-piloted by EU and Ukrainian partners; EU partners will offer 40 hours of online reaching to help the piloting of the courses.

A3.3: results include 3 co-supervised and 12 otherwise supported PhD students, including 8 students exploring the issues of war impact preparedness and the management of the aftermath as a central or a minor focus of their PhD thesis work; such students and their supervisors in Ukraine will receive support from EU partners according to their respective expertise.

A3.4: a training and development workshop (in English) for online trainers from UA (webinar in Ukrainian) by month 10 (10 participants from Ukraine) at UniCam, and a summer school for students by month 30 (16 participants from Ukraine and 6 from EU partners) at UniCam; the events will address issues disaster preparedness and the management of the aftermath, with particular attention to war-related impacts.

A3.5: A webinar in Ukrainian starting Month 16 with at least 12 sessions and 160 participants, addressing issues disaster preparedness and the management of the aftermath, with particular attention to war-related impacts; the webinar will be hosted and moderated by EMU.

Expected number and profile of participants.

CZU: participants of development activities (names, relevant experience), participants of training events (total number and overall characteristic of their profiles)

EMU: participants of development activities include 4 experts in soil and ecosystem recovery, recovery of shell mining fields, as well as environmental monitoring, GIS and remote sensing; 2 representatives of EMU will take part in the training events at UniCam as trainees (junior academic staff and a PhD student).

UniCAM: participants of development activities include 5 experts in spatial planning, disaster risk management and post-disaster recovery, decision support systems and local development. 5 junior academic staff will join training events.

OSENU: participants of development activities include 7 experts in agroecology, soil pollution, environmental safety, environmental monitoring, assessment of technogenic load on the environment, waste management, resource conservation, environmental policy, sustainable nature management, hydrological extremes, disaster risk management, green infrastructure; 10 junior staff and students will join training events.

KKNU: participants of development activities include 6 experts in urban planning, conservation management, risk management, soil management, forestry, environmental management, green energy; 10 junior staff and students will attend training events.

SumDU: development activities include 6 specialists in restoration of ecosystems polluted by oil products and heavy metals, energy technology with a focus on bioenergy; 10 staff and students will participate in the training events.

ICE: participants of development activities include 4 experts in forestry and soil science, conservation management, urban planning; 8 junior staff and students will attend training events.

Please keep in mind that the Erasmus+ Programme is offering co-financing for your project. This means that the EU grant can only cover a part of the project costs, while the rest must be covered by the participating organisations either in form of additional funding, or in form of invested goods, services and work.

Work package n°4 - Introduction of Innovative ICT and Organisational Solutions

What are the specific objectives of this work package and how do they contribute to the general objectives of the project?

This WP is led by UniCam designed to contribute to the general objective (3), which is to maintain and enhance the Ukrainian tertiary education and research in environmental fields through introducing innovative ICT and organizational solutions. These solutions will be identified in an agile manner as the situation is unfolding further, and also includes the development of SUNNY Disaster and Resilience Knowledge HUB (an open-source platform that supports education and research training while informing policy, planning, decision-making, and contemporary good practice in disaster resilience, including war situations). Accordingly, the specific WP objectives are set to:

(O4.1) ensure the introduction of innovative ICT and organizational solutions through VR-, AR-technologies in the educational process

(O4.2) develop the SUNNY Disaster and Resilience Knowledge HUB using prototype of the geospatial portal of environmental data

(O4.3) evaluation of virtual laboratories and integration of free digital tools for sustainable education and science in Ukraine digitally to share experiences and inspire innovation and new ways of working in collaboration with EU partner organizations.

What will be the main results of this work package?

(R4.1) webinar in Ukrainian under topic "Integrating Adaptation Activities into Distance Teaching and Learning Methods to Meet Wartime Challenges".

(R4.2) online training for trainers under SUNNY Disaster and Resilience Knowledge HUB using prototype of the geospatial portal of environmental data with implementation of free digital tools for sustainable education and science in Ukraine digitally to share experiences and inspire innovation and new ways of working in collaboration with EU partner organizations.

(R4.3) developed common virtual laboratories and training in their use

What qualitative and quantitative indicators will you use to measure the level of the achievement of the work package objectives and the quality of the results?

(O4.1) running the webinar in Ukrainian under topic "Integrating Adaptation Activities into Distance Teaching and Learning Methods to Meet Wartime Challenges" starting Month 16 with at least 10 sessions and 160 participants.

(O4.2) running the online training for trainers under SUNNY Disaster and Resilience Knowledge HUB using prototype of the geospatial portal of environmental data at UniCam by Month 24 with 10 participants from Ukrainian and 6 from EU partners with implementation of free digital tools for sustainable education and science in Ukraine digitally to share experiences and inspire innovation and new ways of working in collaboration with EU partner organizations.

(O4.3) Introduction of virtual laboratories and training for trainers by Month 36 with 10 participants from Ukrainian and 6 from EU partners

Please describe the tasks and responsibilities of each partner organisation in the work package.

CZU - contribution to all the development tasks, provision of various forms of support to PhD students (including co-supervision of at least 1 PhD student) and supervisors;

EMU - contribution to all the development tasks, provision of various forms of support to PhD students (including co-supervision of at least 1 PhD student) and supervisors;

UniCam - overall coordination, hosting the webinar, contribution to all the development tasks, provision of various forms of support to PhD students (including co-supervision of at least 1 PhD student) and supervisors;

OSENU - participation in all the training events, co-development contribution to all the development tasks, hosting at least 2 PhD students with WP-relevant thesis topics;

KKNU - co-lead of the WP, participation in all the training events, co-development contribution to all the development tasks, co-organisation of training events, hosting at least 2 PhD students with WP-relevant thesis topics;

SumDU - participation in all the training events, co-development contribution to all the development tasks, hosting at least 2 PhD students with WP-relevant thesis topics;

ICE - participation in all the training events, co-development of curriculum contents, hosting at least 2 PhD students with WP-relevant thesis topics.

Please explain how you define the amount dedicated to the work package and how the work package is cost-effective ?

xxx

Activities (4 - Introduction of Innovative ICT and Organisational Solutions)

In the following sections, you are asked to provide details about each activity of the work package.

You are asked to provide information about each planned activity as a whole (e.g. its venue, duration, estimated number of participants etc.), to define the activity's lead organisation, and optionally to list the other participating organisations. The lead organisation is typically the one organising the activity. The other participating organisations are all other project partners who will also take part in the particular activity. The estimated activity start and end dates can be changed during implementation.

Please specify each of the planned project activities in the table below

Activity title	Venue	Estimated start date	Estimated end date	Leading Organisation	Participating Organisations	Amount allocated to activity (EUR)	Expected results
Set of ToRs Ukraine	Ukraine	01/09/2023	01/03/2024	SUMY STATE UNIVERSITY (E10174056 - UA)	Applicant - Česká zemědělská univerzita v Praze (E10209207 - CZ) , EESTI MAAULIKOOL (E10208772 - EE) , Institute of Ecology of the Carpathians Natajyaal Academy of Ukraine (E10330593 - UA) , Odessa State Environmental University (E10167368 - UA) , UNIVERSITA DEGLI STUDI DI CAMERINO (E10208672 - IT) , V. N. Karazin Kharkiv National University (E10175429 - UA)	15 000,00	Report
Webinar series	Ukraine	01/12/2024	01/08/2026	SUMY STATE UNIVERSITY (E10174056 - UA)	Applicant - Česká zemědělská univerzita v Praze (E10209207 - CZ) , EESTI MAAULIKOOL (E10208772 - EE) , Institute of Ecology of the Carpathians Natajyaal Academy of Ukraine (E10330593 - UA) , Odessa State Environmental University (E10167368 - UA) , UNIVERSITA DEGLI STUDI DI CAMERINO	50 000,00	102 webinar sessions

(E10208672 - IT) ,

V. N. Karazin Kharkiv National University (E10175429
- UA)

65 000,00

Description of the activities

Describe the content of the proposed activities.

A4.1 The set of terms of references for WP results will be developed by M 10 and kept open to amendments till the end of the project, as the situation is dynamic and unpredictable; it will be based on a survey to be filled in by EU and Ukrainian partners, and the outcomes of a follow up workshop (by month 10); the final (open to edits) version of the ToRs will be ready by month 12; the set of ToRs will be available as a c.a. 10 page report.

A4.2: A webinar in Ukrainian starting Month 16 with at least 102 sessions and 160 participants, addressing issues of disaster preparedness and the management of the aftermath, with particular attention to war-related impacts; the webinar will be hosted and moderated by SumDu

A4.3: 5 ECTS of online training for trainers under SUNNY Disaster and Resilience Knowledge HUB addressing the issues of sustainable education and science in Ukraine digitally under wartime challenges; the courses will be submitted for approval or accreditation by month 36

A4.4: a development common virtual laboratories space for online trainers from UA (webinar in Ukrainian) by month 10 (10 participants from Ukraine) at UniCam, the events will address issues disaster preparedness and the management of the aftermath, with particular attention to war-related impacts.

Explain how this activity is going to help reach the WP objectives.

A4.1 will help to fine tune the objectives given the current situation, and will provide detailed guidance for their implementation.

A4.2 directly corresponds to O4.1 in developing and supporting mechanisms to support scientific schools in Ukraine, with particular attention to war-related impacts.

A4.3 directly corresponds to O4.2 as to address the shortage of ideas for scientific and technical developments and their importance for the development of educational access in the context of the post-war reconstruction of Ukraine; to update the existing material and technical base and create conditions for the online space development for startups in Ukrainian universities as part of educational activities.

A4.4 directly corresponds to O4.3 through the development sustainable education process in Ukraine

Describe the expected results of the activities.

The expected results will

Expected number and profile of participants.

CZU: participants of development activities (names, relevant experience), participants of training events (total number and overall characteristic of their profiles)

EMU: participants of development activities include experts in educational technology, administrators dealing with the coordination of PhD programs at EMU, with the IT management and management of international mobility.

UniCAM: participants of development activities include Prof. Massimo Sargolini (Full Professor in Town and Regional Planning, expert in territorial and landscape planning, protected areas planning and management, disaster risk management and post-disaster recovery); Prof. Renato De Leone (Full Professor, Chairman of the Mathematics and Computer Science Department, Rector Delegate for Erasmus International Mobility, expert in System Dynamics and decision support systems); Dr. Ilenia Pierantoni (Researcher in Urban and regional planning; expert in local development and landscape and protected areas planning, green infrastructures and climate adaptation, risk management and prevention); Dr. Valentina Polci (Researcher in sociology of cultural and communication processes, expert in participatory processes, communication, and citizen science in the context of disaster risk management and post-disaster recovery); Dr. Flavio Stimilli (Researcher in Urban and regional planning; expert in natural hazards, community resilience and disaster risk reduction); Prof. Salvatore Santuccio (Associated professor in drawing; expert in communication strategies in research, education, and social engagement). 5 more participants will join the training events (1 expert in ICT; 1 expert in GIS; 3 junior academic staff)

OSENU: participants of development activities include experts in distance learning technology, ICT and new approaches in teaching, administrators of PhD training, and managers of international activities.

KKNU: participants of development activities (names, relevant experience), participants

Please keep in mind that the Erasmus+ Programme is offering co-financing for your project. This means that the EU grant can only cover a part of the project costs, while the rest must be covered by the participating organisations either in form of additional funding, or in form of invested goods, services and work.

Work package n°5 - Dissemination, Exploitation and Stakeholder engagement

What are the specific objectives of this work package and how do they contribute to the general objectives of the project?

1. To increase the value of SUNNY in terms of accelerating Innovation and providing sustainable solutions to the EU and Ukrainian universities.
2. To enhance the long-term sustainability and adoption of the SUNNY Project Results.
3. To disseminate the value of Innovative Tools such as the availability of relevant curriculum deliverables (new disciplines and existing disciplines updated with new modules as well as teaching and learning materials) addressing the issues of war impact preparedness and the management of the aftermath through their co-development by EU and Ukrainian partners.
4. To disseminate the SUNNY Project deliverables as well as material related to society-relevant research and research training

The SUNNY consortium wants to ensure the widest possible dissemination of the project activities and final results in order to have early and vivid interest expressed by the target groups. The lead partner for the dissemination plan will be CZU, who also has long-term experiences from Ukraine and will collaboratively work with all the partners on the dissemination of project results.

For the achievement of the Dissemination and Exploitation objectives, CZU will develop and implement the Project Dissemination and Exploitation Strategy. The Strategy will involve:

1. The implementation Dissemination KPI monitoring practices and systematic review/reporting
2. The creation of the project visual identity, which will maximise the visibility of the project, as well as provide a consistent visual quality of all project-related material
3. The establishment of the project website (developed by CZU) and project Social Media page (by CZU), which will enable the consortium to directly disseminate and engage with target groups and stakeholders
4. The development and design of the project e-Newsletters and e-Leaflet
5. The organisation of National Multiplier Events (by all partners)

What will be the main results of this work package?

The ultimate Objective of the Dissemination WP is the promotion of the project and its results, as well as engagement with Target Groups and Project Stakeholders on Local, National, Regional, EU and International levels. The achievement of this objective will be possible with the development of the concrete Result of the Dissemination WP: the SUNNY Dissemination Plan.

The SUNNY Dissemination Plan will:

- a) Outline the Dissemination Strategy and Implementation Methods
- b) Include Target Group descriptions
- c) Include communication Methods
- d) Include Dissemination Key Performance Indicators and Targets
- e) Include Project Visual Identity Information
- f) Include templates for Presentations, Letterheads, Dissemination Activity Registers (to be used by each partner)

Furthermore, the Dissemination Plan will contain a timetable and information on Dissemination Events and other Tools/Communication Methods that will maximise the exposure of the project as well as consortium engagement with target groups and stakeholders.

More specifically, the Dissemination Plan will also include:

- Information on the Multiplier Events, to be carried out by all partners; participant profile, participant numbers, venue location, objectives, hosting organisation (1 ME per partner with at least 30 Local Participants); Organisation and Hosting of Multiplier Events will involve the invitations of attendees, securing venues, inviting experts for the delivery of planned activities/presentations, creating presentations and event schedules
- e-Newsletter and e-Leaflet Templates
- List of Communication Methods
- Dissemination KPIs
- Dissemination Activities Register Template
- SUNNY project website

Furthermore, there will be 2 conferences organized within this WP (Czechia and Italy).

What qualitative and quantitative indicators will you use to measure the level of the achievement of the work package objectives and the quality of the results?

- Project Website and Social Media;
 - a) Website; min. visitors - 4000
 - b) Social Media; min. followers - 500
 - c) People reached through social media posts; min. 4000 people reached
- Successful editorial and distribution (and translations) of 4 Newsletters on project implementation months 6, 12, 18 and 24
- People reached through SUNNY project newsletter; min. 1000 people reached
- Multiplier Events (x6);
 - a) ME1 in the Czech Republic by CZU; 30/30 Local Participants

- b) ME2 in Estonia by EMU; 20/20 Local Participants
- c) ME3 in Ukraine by UniCam; 30/30 Local Participants
- d) ME4 in Ukraine by OSENU; 30/30 Local Participants
- e) ME5 in Ukraine by KKNU; 30/30 Local Participants
- f) ME6 in Ukraine by SumDu; 30/30 Local Participants
- g) ME7 in Italy by ICE, 30/30 Local Participants

Two conferences:

Conference Czechia (100 participants)

Conference Italy (100 participants)

Qualitative:

- Multiplier Event Participant Feedback; event presentations, quality of project results, event material quality, impact of project results, event organisation and participant satisfaction; min. overall score 4/5
- Overall engagement of Target Groups and Stakeholders with Project Material
- Timely development and delivery of the Project Website
- Timely establishment of the Project Social Media Page and consistent flow of content
- Overall achievement of Dissemination Targets

Please describe the tasks and responsibilities of each partner organisation in the work package.

- CZU (P1)

The lead partner for the project dissemination plan will be CZU, who will be responsible for:

- a) Preparing the SUNNY Dissemination Plan which will be shared with the consortium, and monitoring the strategy implementation.
- b) Establishing the project contacts database and upload it to the Project Google Drive.
- c) Establishing and maintaining the the Project's Social Media Page
- d) Developing the Project's Visual Identity and all corresponding templates
- e) Submitting Interim Dissemination Reports (to inform the reporting to the NA)
- f) Drafting the Project e-Newsletters and coordinating partners for their translation to national languages
- g) Coordinating the Social Media Posts Rotation, in order to maintain a consistent flow of content with the contribution of all partners

- All Partners:

All partners will contribute to the implementation of dissemination activities equally and will translate all dissemination materials into their national languages. All partners will:

- a) Disseminate SUNNY Project Results and project-related material to target groups and stakeholders through the contact networks of their organisations
- b) Contribute to the Social Media Page by posting content (according to the agreed Social Media posts rotation) and developing website content
- c) Keep their Dissemination Activities Registers up-to-date
- d) Post content on their individual organisations' Social Media pages and websites
- e) Organise and host Multiplier Events
- Specific to website (PC); CZU will be the partner responsible for developing and maintaining the Project Website, uploading content and ensuring its functionality (fixing errors, troubleshooting etc).

Please explain how you define the amount dedicated to the work package and how the work package is cost-effective ?

xx

Activities (5 - Dissemination, Exploitation and Stakeholder engagement)

In the following sections, you are asked to provide details about each activity of the work package.

You are asked to provide information about each planned activity as a whole (e.g. its venue, duration, estimated number of participants etc.), to define the activity's lead organisation, and optionally to list the other participating organisations. The lead organisation is typically the one organising the activity. The other participating organisations are all other project partners who will also take part in the particular activity. The estimated activity start and end dates can be changed during implementation.

Please specify each of the planned project activities in the table below

Activity title	Venue	Estimated start date	Estimated end date	Leading Organisation	Participating Organisations	Amount allocated to activity (EUR)	Expected results
Conference 1	Czech Republic	01/06/2024	01/12/2024	Applicant - Česká zemědělská univerzita v Praze (E10209207 - CZ)	EESTI MAAULIKOOL (E10208772 - EE) , Institute of Ecology of the Carpathians Natajyaal Academy of Ukraine (E10330593 - UA) , Odessa State Environmental University (E10167368 - UA) , SUMY STATE UNIVERSITY (E10174056 - UA) , UNIVERSITA DEGLI STUDI DI CAMERINO (E10208672 - IT) , V. N. Karazin Kharkiv National University (E10175429 - UA)	20 000,00	Conference
Conference 2	Italy	01/03/2025	01/12/2025	UNIVERSITA DEGLI STUDI DI CAMERINO (E10208672 - IT)	EESTI MAAULIKOOL (E10208772 - EE) , Institute of Ecology of the Carpathians Natajyaal Academy of Ukraine (E10330593 - UA) , Odessa State Environmental University	30 000,00	Conference
Exploitation and dissemination activity	Czech Republic	01/09/2023	31/08/2026	Applicant - Česká zemědělská univerzita v Praze (E10209207 - CZ)	EESTI MAAULIKOOL (E10208772 - EE) , Institute of Ecology of the Carpathians Natajyaal Academy of Ukraine (E10330593 - UA) , Odessa State Environmental University	50 000,00	Exploitation and dissemination activity

(E10167368 - UA) ,

SUMY STATE UNIVERSITY
(E10174056 - UA) ,

UNIVERSITA DEGLI STUDI DI
CAMERINO (E10208672 - IT) ,

V. N. Karazin Kharkiv National University
(E10175429 - UA)

100 000,00

Description of the activities

Describe the content of the proposed activities.

A1: Dissemination and Project Results Exploitation Strategy Development and Implementation; A1 of WP5 will cover the entire project implementation is broken down into action sets:

1. Actions Set 1: CZU will be the partner responsible for drafting and implementing the SUNNY Dissemination Plan. The dissemination plan will be presented to the consortium during the kick-off TPM in the Czech Republic. Furthermore, UMBRIA will lead activities such as creating the project's visual identity (logo, templates, and letterheads), compliance with Erasmus+ requirements. Finally, CZU will draft of the project e-leaflet and coordinate its translation to partner languages. CZU will develop the project website.

2. Actions Set 2: CZU will coordinate the preparation of e-newsletters, translations and distribution, partners will be posting to the Social Media Page (according to the agreed rotation)

3. Actions Set 3: all partners will keep track and document their Dissemination Activities throughout the entire duration of the project, using the Dissemination Activities Registers (created by EMU)

- A2 - A7: Multiplier Events:

Towards the end of the SUNNY Project (July 2025), all partners will organise and host their National Multiplier Events (MEs).

The MEs will aim at the dissemination of all project results and conclusions, as well as to showcase the importance of implementing SUNNY results. Each partner will invite 30 local participants to participate in the events (a total of 180) and will be responsible for:

- Calculating logistics and accounting for all the components of the event
- Arranging for experts to deliver presentations
- Hosting discussions and panels
- Supporting participants with accessibility issues
- Providing catering
- Securing equipment and venue

Explain how this activity is going to help reach the WP objectives.

WP5 will be implemented with the collective effort of a multidisciplinary consortium.

Specifically, each partner will contribute to the achievement of dissemination targets and maximise the exposure of the project to target groups and stakeholders in their own way:

1. SumDu will utilise its network of contacts in in order to disseminate the results and maximise project exposure in Ukraine.

2. CZU will strive to develop the most effective Dissemination Strategy possible by setting realistic targets that can be achieved with popular communication methods. Furthermore, they will reach out to its vast network of national and regional contacts in order to disseminate project results.

The consortium aims to implement the Dissemination Strategy to the fullest and utilise all Dissemination tools at their disposal (e-leaflets, e-newsletters, social media, web etc)

Describe the expected results of the activities.

It is expected that the project will have tangible and intangible results on local, regional, national, European and international levels in terms of:

- Raising awareness- Raising awareness around the SUNNY results.

- Raising awareness of the positive effect and potential of incorporating SUNNY practices

In terms of tangible results, WP5 will allow the consortium to establish and monitor Dissemination KPIs and therefore be in a position to measure the impact of the project on local, national, regional, EU and International levels. Specifically:

- Measure the engagement of target groups and stakeholders with digital dissemination media; followers, visitors, likes etc
- Measure participation in the Multiplier Events
- Monitor content creation deadlines
- Monitor consortium contact numbers
- Allow for stronger project 'branding' through the creation of the project's visual identity
- Allow for more efficient collaboration in terms of coordinating Dissemination Activities, providing documentation and reporting
- Enable the consortium to directly engage with target groups and stakeholders in the form of Multiplier Events
- Enable the consortium to identify and utilise the best communication pathways in order to maximise project reach and engagement with target groups and stakeholders

Expected number and profile of participants.

WP5 will be implemented with the collective effort of a multidisciplinary consortium.

Specifically, each partner will contribute to the achievement of dissemination targets and maximise the exposure of the project to target groups and stakeholders in their own way:

1. SumDu will utilise its network of contacts in in order to disseminate the results and maximise project exposure in Ukraine.

2. CZU will strive to develop the most effective Dissemination Strategy possible by setting realistic targets that can be

achieved with popular communication methods. Furthermore, they will reach out to its vast network of national and regional contacts in order to disseminate project results.

The consortium aims to implement the Dissemination Strategy to the fullest and utilise all Dissemination tools at their disposal (e-leaflets, e-newsletters, social media, web etc)

Please keep in mind that the Erasmus+ Programme is offering co-financing for your project. This means that the EU grant can only cover a part of the project costs, while the rest must be covered by the participating organisations either in form of additional funding, or in form of invested goods, services and work.

Annexes

The maximum size of a file is 15 MB and the maximum total size is 100 MB.

Declaration on Honour

Please download the Declaration on Honour, print it, have it signed by the legal representative and attach.

File Name	File Size (kB)
DOH -declaration-on-honour_CZU_podepsáno.pdf	452
Total Size (kB)	452

Mandates

Please download the mandates, have them signed by the legal representatives and attach them here. You can add a maximum of 90 documents.

Please ensure that mandates are valid before submitting them to the National Agency. Mandates shall be provided at the latest before the signature of the grant agreement.

File Name	File Size (kB)
MAN -EMU_Erasmus_mandate_ KA220-HED-BEA72614.pdf	370
MAN -KKNNU_Mandate_E10175429.pdf	201
MAN -Mandat IEK NASU.pdf	790
MAN -OSENNU_Mandate_E10167368_signed.pdf	257
MAN -SSU_Mandate_KA220-HED-8EA72614.PDF	153
MAN -mandate_E10208672 (UNICAM)_signed.pdf	263
Total Size (kB)	2 036

Other Documents

If needed, please attach any other relevant documents (a maximum of 9 documents). Please use clear file names.

If you have any additional questions, please contact your National Agency. You can find their contact details here: [List of National Agencies](#).

File Name	File Size (kB)
Total Size (kB)	0
Total Size (kB)	2 489

Checklist

Before submitting your application form to the National Agency, please make sure that:

- ☒ It fulfills the eligibility criteria listed in the [Programme Guide](#).
- ☒ All relevant fields in the application form have been completed.
- ☒ You have chosen the correct National Agency of the country in which your organisation is established. Currently selected NA is: CZ01 - Dům zahraniční spolupráce (DZS) Centre for International Cooperation in Education

Protection of Personal Data

Please read our privacy statement to understand how we process and protect [your personal data](#)

Please also keep in mind the following:

Mandates of each partner to the applicant, signed by both parties, should be submitted latest before the signature of the grant agreement. If the application is approved for funding, signed mandates will be considered as a condition for signature of the grant agreement.

The documents proving the legal status of the applicant must be uploaded in the Organisation Registration System, here: [Organisation Registration System](#)



Submission History

Version	Submission time (Brussels time)	Submission ID	Submission status
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