EUROPEAN EDUCATION AND CULTURE EXECUTIVE AGENCY (EACEA)

EACEA.A – Erasmus+, EU Solidarity Corps
A.4 – International Capacity Building

Лист-підтвердження про перемогу заявки в грантовому конкурсі

Borys CHETVERIKOV
LVIV POLYTECHNIC NATIONAL UNIVERSITY
STEPANA BANDERY 12
79013 LVIV
UKRAINE

Subject: Erasmus+ (ERASMUS+)
Call: ERASMUS-EDU-2025-CBHE
Project: 101238034 — AGROPATH
GAP invitation letter

Dear Applicant,

I am writing in connection with your proposal for the above-mentioned call.

Having completed the evaluation, we are pleased to inform you that your proposal has passed this phase and that we would now like to start grant preparation.

Please find enclosed the evaluation summary report (ESR) for your proposal.

Invitation to grant preparation

Grant preparation will be based on the following:

1. **Project:**

   Project number and name: 101238034 — AGROPATH

   Topic: ERASMUS-EDU-2025-CBHE-STRAND-2 — Capacity building in the field of higher education Strand 2

   Type of action: ERASMUS Lump Sum Grants

   Requested grant amount (proposal): 792 193.76 EUR

   Maximum grant amount (after evaluation): 704 635.00 EUR

   Project duration: 36 months

2. **Timetable and deadlines:**

   Preparation of grant data and annexes: 3 weeks after receiving this letter

   Declaration of honour (DoH): 6 weeks after receiving this letter

   Signature: within 3 months after receiving this letter (planned date)

The grant agreement data and annexes (description of the action, estimated budget, etc.) must be based on the proposal you submitted and the clarifications we requested (if any). You may normally NOT make changes to the project/project budget/consortium composition (except if required by us). Please immediately inform your project officer if you need to make a change *(e.g. bankruptcy, etc.)*.

Once we have checked the information you have encoded, you will have 2 weeks to submit your final version — to bring it in line with our comments.

3. **Participant Register**

All partners participating as beneficiaries or affiliated entities must be registered and validated in the Participant Register.

Please note that some of your legal and financial data in this Register is read-only and can be updated only by a LEAR (via the Portal My Organisation(s) page). If you do not already have one, we will contact you soon for their nomination.

4. **How to contact us**

Project officer: Boryana YOTOVA
International Capacity Building

Grant preparation and grant signature will be done exclusively through the Funding & Tenders Portal (login via your Portal account). The Portal allows you to upload documents, send Messages and Formal Notifications. Avoid contacting us via other means (email, letter, etc.); this will allow us to keep the full project file all in the same place.

Please note that affiliated entities cannot directly access the Portal Grant Management System; grant preparation will therefore have to be done by their beneficiaries for them.

5. **Other**

For more information on grant preparation, *see the Online Manual*.

⚠ Please note that this letter does **NOT** constitute a **formal commitment for funding**. The final decision on your project (including the grant amount to be awarded) can be taken only later, when we have finalised grant preparation and the checks that still need to be done *(LEAR appointment, legal entity validation, financial capacity assessment, non-exclusion check, ethics review, security review, etc.)*.

We will try to proceed as swiftly as possible, but we rely on your good cooperation. If you do not reply to our requests or repeatedly miss grant preparation deadlines, we will consider that you are no longer interested in our grant (and reject your proposal).

More information on the evaluation of the call is published in a topic update in the Funding & Tenders Portal.

I would be grateful if you could inform everyone involved in your proposal of this letter.

For any questions, please contact us via your Funding & Tenders Portal account > My Project(s) > Actions > Manage Project > Process communications.

Yours faithfully,

Bodo RICHTER
Head of Unit

Enclosure: Evaluation summary report (ESR)

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Lutkovska Svitlana

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Home > Grants centre > Projects > AGROPATH

AGROPATH

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LVIV POLYTECHNIC NATIONAL UNIVERSITY LPNU
PIC 998579305
Coordinator
Active

POLITECHNIKA WARSZAWSKA WARSAW UNIVERSITY OF TECHNOLOGY
PIC 999884052
Partner
Active

UNIVERZA V MARIBORU UM
PIC 999903646
Partner
Active

ARISTOTELIO PANEPISTIMIO THESSALONIKIS ARISTOTLE UNIVERSITY OF THE…
PIC 999895692
Partner
Active

THE NATIONAL UNIVERSITY OF WATER AND ENVIRONMENTAL ENGINEERING …
PIC 970440478
Partner
Active

Vinnytsia National Agrarian University
PIC 894318176
Partner
Active

Soniachna St.,3
21008 Vinnytsia UA

LEAR access is authorised

To manage LEAR access to the project, click on the Edit Roles button

5 items found

Edit roles

Filter...

Name	Roles	E-mail
Yaropud Vitalii	Participant Contact	yaropud77@gmail.com
Kupchuk Ihor	Team Member	kupchuk.igor89@gmail.com
Lutkovska Svitlana	Project Legal Signatory	inter.depart.vnau@gmail.com
Burlaka Serhiy	Participant Contact	ipserhiy@gmail.com

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NATIONAL UNIVERSITY OF LIFE AND ENVIRONMENTAL SCIENCES OF UKRAINE…

PIC 999526510

Active

Partner

UNIVERSITATEA TEHNICA A MOLDOVEI TUM

PIC 997958020

Active

Partner

INSTITUTIA PUBLICA UNIVERSITATEA PEDAGOGICA DE STAT ION CREANGA DI…

PIC 990242058

Active

Partner

Call: ERASMUS-EDU-2025-CBHE

(Capacity building in the field of higher education)

Topic: ERASMUS-EDU-2025-CBHE-STRAND-2

Type of Action: ERASMUS-LS

(ERASMUS Lump Sum Grants)

Proposal number: 101238034

Proposal acronym: AGROPATH

Type of Model Grant Agreement: ERASMUS Lump Sum Grant

Table of contents

Proposal ID **101238034**

Acronym **AGROPATH**

1 - General information

Field(s) marked * are mandatory to fill.

Topic	ERASMUS-EDU-2025-CBHE-STRAND-2	Type of Action	ERASMUS-LS
Call	ERASMUS-EDU-2025-CBHE	Type of Model Grant Agreement	ERASMUS-AG-LS

Acronym: AGROPATH

Proposal title: Advanced Geomatics and Remote Observation for Precise Agriculture in Terms of Higher education

Note that for technical reasons, the following characters are not accepted in the Proposal Title and will be removed: < > " &

Language: English

Duration in months: 36

Fixed keyword 1: Curriculum design and development

Free keywords: education, precise agriculture, digital innovations, geomatics

Panel: Region 2 - Neighbourhood East

Please select 1 descriptor(s) that best characterise(s) the subject of your proposal, in descending order of relevance. Note that descriptor(s) will be used to identify the best qualified evaluators for your proposal.

Descriptor1: Digital transformation

Abstract *

The AGROPATH project (Advanced Geomatics and Remote Observation for Precision Agriculture in Higher Education) addresses the pressing need to modernize agricultural education and workforce development in Ukraine and Moldova, focusing on digital transformation and advanced geomatics. Agriculture plays a critical role in both economies, but the sectors face challenges such as outdated practices, insufficient digital skills, and the impact of Ukraine's ongoing conflict.
The project seeks to bridge these gaps by modernizing curricula in precision agriculture, integrating cutting-edge digital tools like GNSS, GIS, remote sensing, and UAVs. Key activities include updating education programs, establishing state-of-the-art geomatics laboratories, and providing tailored retraining courses for displaced individuals, rural communities, and professionals. The project will also create an open-access learning environment to ensure long-term access to high-quality, multilingual educational resources.
Through cross-border cooperation with the EU, AGROPATH will enhance the digital literacy of students, educators, and agricultural professionals, fostering sustainable agricultural practices and socio-economic recovery in the region. By equipping stakeholders with the skills needed to drive digital transformation in agriculture, the project will strengthen the resilience of the sector and support long-term economic recovery and workforce development in Ukraine and Moldova.

Remaining characters 522

Application forms

Proposal ID **101238034**

Acronym **AGROPATH**

Has this proposal (or a very similar one) been submitted in the past 2 years in response to a call for proposals under any EU programme, including the current call? ○ Yes ◉ No

Please give the proposal reference or contract number.
Previously submitted proposals should be with either 6 or 9 digits.

Application forms

Proposal ID **101238034**

Acronym **AGROPATH**

Declarations

Field(s) marked * are mandatory to fill.

1) We declare to have the explicit consent of all applicants on their participation and on the content of this proposal. *	☒
2) We confirm that the information contained in this proposal is correct and complete and that none of the project activities have started before the proposal was submitted (unless explicitly authorised in the call conditions). *	☒
3) We declare: - to be fully compliant with the eligibility criteria set out in the call - not to be subject to any exclusion grounds under the EU Financial Regulation 2018/1046 - to have the financial and operational capacity to carry out the proposed project. *	☒
4) We acknowledge that all communication will be made through the Funding & Tenders Portal electronic exchange system and that access and use of this system is subject to the Funding & Tenders Portal Terms and Conditions. *	☒
5) We have read, understood and accepted the Funding & Tenders Portal Terms & Conditions and Privacy Statement that set out the conditions of use of the Portal and the scope, purposes, retention periods, etc. for the processing of personal data of all data subjects whose data we communicate for the purpose of the application, evaluation, award and subsequent management of our grant, prizes and contracts (including financial transactions and audits). *	☒
6) For Lump Sum Grants with a detailed budget table: We understand and accept that the EU lump sum grants must be reliable proxies for the actual costs of a project and confirm that the detailed budget for the proposal has been established in accordance with our usual cost accounting practices and in compliance with the basic eligibility conditions for EU actual cost grants (see AGA - Annotated Grant Agreement, art 6) and exclude costs that are ineligible under the Programme. Purchases and subcontracting costs must be done taking into account best value for money and must be free of conflict of interest.	☒

The coordinator is only responsible for the information relating to their own organisation. Each applicant remains responsible for the information declared for their organisation. If the proposal is retained for EU funding, they will all be required to sign a declaration of honour.

False statements or incorrect information may lead to administrative sanctions under the EU Financial Regulation.

2 - Participants

List of participating organisations

#	Participating Organisation Legal Name	Country	Role	Action
1	LVIV POLYTECHNIC NATIONAL UNIVERSITY	UA	Coordinator	
2	POLITECHNIKA WARSZAWSKA	PL	Partner	
3	UNIVERZA V MARIBORU	SI	Partner	
4	ARISTOTELIO PANEPISTIMIO THESSALONIKIS	EL	Partner	
5	THE NATIONAL UNIVERSITY OF WATER AND ENVIRONMEN	UA	Partner	
6	Vinnytsia National Agrarian University	UA	Partner	
7	NATIONAL UNIVERSITY OF LIFE AND ENVIRONMENTAL SC	UA	Partner	
8	UNIVERSITATEA TEHNICA A MOLDOVEI	MD	Partner	
9	ION CREANGA STATE PEDAGOGICAL UNIVERSITY	MD	Partner	
10	OBUDAI EGYETEM	HU	Associated	

Organisation data

PIC	Legal name
998579305	*LVIV POLYTECHNIC NATIONAL UNIVERSITY*

Short name:	LPNU		
Address:	STEPANA BANDERY 12	Legal person:	yes
Town:	LVIV	Public body:	yes
Postcode:	79013	Non-profit:	yes
Country:	Ukraine		

SME data

SME self-declared status:	unknown	SME self-assessment:	unknown	SME validation:	unknown
Research organisation:	yes	Secondary or higher education:	yes		
International organisation:	no				

Accreditations

Accreditation type:	unknown		
Accreditation number:	unknown	Expiration date:	unknown

Type of Organisation

Higher education institution (tertiary level)

Departments carrying out the proposed work

Department 1

Department name: Department of Photogrammetry and Geoinformatics ☐ not applicable

☐ Same as proposing organisation's address

Street: Karpinskogo 6

Town: Lviv

Postcode: 79013

Country: Ukraine

Links with other participants

Type of link	Participant

Application forms

Proposal ID **101238034**

Acronym **AGROPATH**

Short name **LPNU**

Main contact person

The name and e-mail of contact persons are read-only in the administrative form, only additional details can be edited here. To give access rights and basic contact details of contact persons, please go back to step - Manage your related parties of the submission wizard and save the changes.

Title Dr

Gender ○ Woman ◉ Man ○ Non Binary

First name **Borys**

Last name **Chetverikov**

E-Mail **borys.v.chetverikov@lpnu.ua**

Position in org. Assosiate professor

Department Department of Photogrammetry and Geoinformatics ☐ Same as organisation name

☐ Same as proposing organisation's address

Street Karpinskogo 6

Town Lviv

Post code 79013

Country Ukraine

Website https://lpnu.ua/en/pg

Phone +380631671585

Phone 2 +380322582616

Other contact persons

First Name	Last Name	E-mail	Phone
Lyubov	Babiy	liubov.v.babii@lpnu.ua	*+380676749110*

Organisation data

PIC	Legal name
999884052	*POLITECHNIKA WARSZAWSKA*

Short name: WARSAW UNIVERSITY OF TECHNOLOGY

Address: PLAC POLITECHNIKI 1

Town: WARSZAWA

Postcode: 00-661

Country: Poland

Legal person: yes

Public body: yes

Non-profit: yes

SME data

SME self-declared status: no

SME self-assessment: no

SME validation: unknown

Research organisation: yes

Secondary or higher education: yes

International organisation: no

Accreditations

Accreditation type: Erasmus Charter Higher Education

Accreditation number: 101014116

Expiration date: 31-12-2029

Type of Organisation

Higher education institution (tertiary level)

Departments carrying out the proposed work

Department 1

Department name: Faculty of Geodesy and Cartography ☐ not applicable

☒ Same as proposing organisation's address

Street: PLAC POLITECHNIKI 1

Town: WARSZAWA

Postcode: 00-661

Country: Poland

Links with other participants

Type of link	Participant

Application forms

Proposal ID **101238034**

Acronym **AGROPATH**

Short name **WARSAW UNIVERSITY OF TECHNOLOGY**

Main contact person

The name and e-mail of contact persons are read-only in the administrative form, only additional details can be edited here. To give access rights and basic contact details of contact persons, please go back to step - Manage your related parties of the submission wizard and save the changes.

Title Dr

Gender ◉ Woman ○ Man ○ Non Binary

First name **Joanna**

Last name **Pluto-Kossakowska**

E-Mail **joanna.kossakowska@pw.edu.pl**

Position in org. Assistant Professor

Department Faculty of Geodesy and Cartography ☐ Same as organisation name

☒ Same as proposing organisation's address

Street PLAC POLITECHNIKI 1

Town WARSZAWA

Post code 00-661

Country Poland

Website https://www.gik.pw.edu.pl/

Phone +48 22 234 7223

Phone 2 +48 22 234 1578

Organisation data

PIC	Legal name
999903646	*UNIVERZA V MARIBORU*

Short name: UM

Address: SLOMSKOV TRG 15

Town: MARIBOR

Postcode: 2000

Country: Slovenia

Legal person: yes

Public body: yes

Non-profit: yes

SME data

SME self-declared status: no

SME self-assessment: unknown

SME validation: no

Research organisation: yes

Secondary or higher education: yes

International organisation: no

Accreditations

Accreditation type: Erasmus Charter Higher Education

Accreditation number: 101012174

Expiration date: 31-12-2029

Type of Organisation

Higher education institution (tertiary level)

Departments carrying out the proposed work

Department 1

Department name: Faculty of Agriculture and Life Sciences ☐ not applicable

☒ Same as proposing organisation's address

Street: SLOMSKOV TRG 15

Town: MARIBOR

Postcode: 2000

Country: Slovenia

Links with other participants

Type of link	Participant

Application forms

Proposal ID **101238034**

Acronym **AGROPATH**

Short name **UM**

Main contact person

The name and e-mail of contact persons are read-only in the administrative form, only additional details can be edited here. To give access rights and basic contact details of contact persons, please go back to step - Manage your related parties of the submission wizard and save the changes.

Title Dr

Gender ◯ Woman ◉ Man ◯ Non Binary

First name **Jurij**

Last name **Rakun**

E-Mail **jurij.rakun@um.si**

Position in org. Researcher / lecturer

Department Faculty of Agriculture and Life Sciences ☐ Same as organisation name

☒ Same as proposing organisation's address

Street SLOMSKOV TRG 15

Town MARIBOR

Post code 2000

Country Slovenia

Website *Please enter website*

Phone *+xxx xxxxxxxxx*

Phone 2 +386 (0)2 23 55 280

Organisation data

PIC	Legal name
999895692	*ARISTOTELIO PANEPISTIMIO THESSALONIKIS*

Short name: ARISTOTLE UNIVERSITY OF THESSALONIKI

Address: KEDEA BUILDING, TRITIS SEPTEMVRIOU, ARISTOTLE UNIVERSITY CAMPUS

Town: THESSALONIKI

Postcode: 546 36

Country: Greece

Legal person: yes

Public body: yes

Non-profit: yes

SME data

SME self-declared status: no

SME self-assessment: no

SME validation: no

Research organisation: yes

Secondary or higher education: yes

International organisation: no

Accreditations

Accreditation type: Erasmus Charter Higher Education

Accreditation number: 101013783

Expiration date: 31-12-2029

Type of Organisation

Higher education institution (tertiary level)

Departments carrying out the proposed work

Department 1

Department name: Hydraulics, Soil science and Agric. Engineering ☐ not applicable

☒ Same as proposing organisation's address

Street: KEDEA BUILDING, TRITIS SEPTEMVRIOU, ARIS

Town: THESSALONIKI

Postcode: 546 36

Country: Greece

Links with other participants

Type of link	Participant

Application forms

Proposal ID **101238034**

Acronym **AGROPATH**

Short name **ARISTOTLE UNIVERSITY OF THESSALONIKI**

Main contact person

The name and e-mail of contact persons are read-only in the administrative form, only additional details can be edited here. To give access rights and basic contact details of contact persons, please go back to step - Manage your related parties of the submission wizard and save the changes.

Title Prof.

Gender ○ Woman ◉ Man ○ Non Binary

First name **Thomas**

Last name **Alexandridis**

E-Mail **thalex@agro.auth.gr**

Position in org. Head of Laboratory of Remote Sensing, Spectroscopy and GIS

Department Hydraulics, Soil science and Agric. Engineering ☐ Same as organisation name

☒ Same as proposing organisation's address

Street KEDEA BUILDING, TRITIS SEPTEMVRIOU, ARISTOTLE UNIVERSITY CAMPUS

Town THESSALONIKI

Post code 546 36

Country Greece

Website www.auth.gr

Phone 0030 2310995140

Phone 2 *+xxx xxxxxxxxx*

Organisation data

PIC	Legal name
970440478	*THE NATIONAL UNIVERSITY OF WATER AND ENVIRONMENTAL ENGINEERING*

Short name: NUWEE

Address: 11 SOBORNA STR.

Town: RIVNE

Postcode: 33028

Country: Ukraine

Legal person: yes

Public body: yes

Non-profit: yes

SME data

SME self-declared status: no

SME self-assessment: unknown

SME validation: no

Research organisation: yes

Secondary or higher education: yes

International organisation: no

Accreditations

Accreditation type: unknown

Accreditation number: unknown

Expiration date: unknown

Type of Organisation

Higher education institution (tertiary level)

Departments carrying out the proposed work

Department 1

Department name: Department Geodesy and Cartography ☐ not applicable

☒ Same as proposing organisation's address

Street: 11 SOBORNA STR.

Town: RIVNE

Postcode: 33028

Country: Ukraine

Links with other participants

Type of link	Participant

Application forms

Proposal ID **101238034**

Acronym **AGROPATH**

Short name **NUWEE**

Main contact person

The name and e-mail of contact persons are read-only in the administrative form, only additional details can be edited here. To give access rights and basic contact details of contact persons, please go back to step - Manage your related parties of the submission wizard and save the changes.

Title Dr

Gender ○ Woman ◉ Man ○ Non Binary

First name **Ruslan**

Last name **Yanchuk**

E-Mail **r.m.yanchuk@nuwm.edu.ua**

Position in org. Head of Department

Department Department Geodesy and Cartography ☐ Same as organisation name

☒ Same as proposing organisation's address

Street 11 SOBORNA STR.

Town RIVNE

Post code 33028

Country Ukraine

Website *Please enter website*

Phone +38-036-2633209

Phone 2 *+xxx xxxxxxxxx*

Organisation data

PIC	Legal name
894318176	*Vinnytsia National Agrarian University*

Short name:	Vinnytsia National Agrarian University		
Address:	Soniachna St.,3	Legal person:	yes
Town:	Vinnytsia	Public body:	yes
Postcode:	21008	Non-profit:	no
Country:	Ukraine		

SME data

SME self-declared status:	unknown	SME self-assessment:	unknown	SME validation:	unknown
Research organisation:	no	Secondary or higher education:	yes		
International organisation:	no				

Accreditations

Accreditation type:	unknown		
Accreditation number:	unknown	Expiration date:	unknown

Type of Organisation

Higher education institution (tertiary level)

Departments carrying out the proposed work

Department 1

Department name: Faculty of Agricultural Engineering and Technical Service ☐ not applicable

☒ Same as proposing organisation's address

Street: Soniachna St.,3

Town: Vinnytsia

Postcode: 21008

Country: Ukraine

Links with other participants

Type of link	Participant

Application forms

Proposal ID **101238034**

Acronym **AGROPATH**

Short name **Vinnytsia National Agrarian University**

Main contact person

The name and e-mail of contact persons are read-only in the administrative form, only additional details can be edited here. To give access rights and basic contact details of contact persons, please go back to step - Manage your related parties of the submission wizard and save the changes.

Title Dr

Gender ◯ Woman ◉ Man ◯ Non Binary

First name **Oleksandr**

Last name **Kholodiuk**

E-Mail **holodyk76@ukr.net**

Position in org. Associated professor

Department Faculty of Agricultural Engineering and Technical Service ☐ Same as organisation name

☒ Same as proposing organisation's address

Street Soniachna St.,3

Town Vinnytsia

Post code 21008

Country Ukraine

Website https://vsau.org/en/

Phone +380673918432

Phone 2 *+xxx xxxxxxxxx*

Organisation data

PIC	Legal name
999526510	*NATIONAL UNIVERSITY OF LIFE AND ENVIRONMENTAL SCIENCES OF UKRAINE*

Short name: NUBIP

Address: Herojiv Obrony 15

Town: KYIV

Postcode: 03041

Country: Ukraine

Legal person: yes

Public body: yes

Non-profit: yes

SME data

SME self-declared status: unknown

SME self-assessment: unknown

SME validation: unknown

Research organisation: no

Secondary or higher education: yes

International organisation: no

Accreditations

Accreditation type: unknown

Accreditation number: unknown

Expiration date: unknown

Type of Organisation

Higher education institution (tertiary level)

Departments carrying out the proposed work

Department 1

Department name: Land Management faculty ☐ not applicable

☒ Same as proposing organisation's address

Street: Herojiv Obrony 15

Town: KYIV

Postcode: 03041

Country: Ukraine

Links with other participants

Type of link	Participant

Application forms

Proposal ID **101238034**

Acronym **AGROPATH**

Short name **NUBIP**

Main contact person

The name and e-mail of contact persons are read-only in the administrative form, only additional details can be edited here. To give access rights and basic contact details of contact persons, please go back to step - Manage your related parties of the submission wizard and save the changes.

Title Prof.

Gender ○ Woman ◉ Man ○ Non Binary

First name **Taras**

Last name **Ievsiukov**

E-Mail **ievsiukov_t@nubip.edu.ua**

Position in org. Dean

Department Land Management faculty

☐ Same as organisation name

☒ Same as proposing organisation's address

Street Herojiv Obrony 15

Town KYIV

Post code 03041

Country Ukraine

Website *Please enter website*

Phone +380445313652

Phone 2 *+xxx xxxxxxxxx*

Organisation data

PIC	Legal name
997958020	*UNIVERSITATEA TEHNICA A MOLDOVEI*

Short name: TUM

Address: Stefan cel Mare 168

Town: Chisinau

Postcode: MD2004

Country: Moldova

Legal person: yes

Public body: yes

Non-profit: yes

SME data

SME self-declared status: no

SME self-assessment: unknown

SME validation: unknown

Research organisation: yes

Secondary or higher education: yes

International organisation: no

Accreditations

Accreditation type: unknown

Accreditation number: unknown

Expiration date: unknown

Type of Organisation

Higher education institution (tertiary level)

Departments carrying out the proposed work

Department 1

Department name: Faculty of Constructions, Geodesy and Cadastre ☐ not applicable

☒ Same as proposing organisation's address

Street: Stefan cel Mare 168

Town: Chisinau

Postcode: MD2004

Country: Moldova

Links with other participants

Type of link	Participant

Application forms

Proposal ID **101238034**

Acronym **AGROPATH**

Short name **TUM**

Main contact person

The name and e-mail of contact persons are read-only in the administrative form, only additional details can be edited here. To give access rights and basic contact details of contact persons, please go back to step - Manage your related parties of the submission wizard and save the changes.

Title Dr

Gender ◉ Woman ○ Man ○ Non Binary

First name **Livia**

Last name **Nistor-Lopatenco**

E-Mail **livia.nistor@fcgc.utm.md**

Position in org. Dean

Department Faculty of Constructions, Geodesy and Cadastre ☐ Same as organisation name

☒ Same as proposing organisation's address

Street Stefan cel Mare 168

Town Chisinau

Post code MD2004

Country Moldova

Website https://fcgc.utm.md/

Phone +37369412245

Phone 2 *+xxx xxxxxxxxx*

Organisation data

PIC	Legal name
990242058	*ION CREANGA STATE PEDAGOGICAL UNIVERSITY*

Short name:	UNIVERTISITEA PEDAGOGIA DE STAT ION CREANGA CHISINAU		
Address:	ION CREANGA STREET 1	Legal person:	yes
Town:	CHISINAU	Public body:	yes
Postcode:	2069	Non-profit:	yes
Country:	Moldova		

SME data

SME self-declared status:	no	SME self-assessment:	unknown	SME validation:	unknown
Research organisation:	yes	Secondary or higher education:	yes		
International organisation:	no				

Accreditations

Accreditation type:	unknown		
Accreditation number:	unknown	Expiration date:	unknown

Type of Organisation

Higher education institution (tertiary level)

Departments carrying out the proposed work

Department 1

Department name: Faculty of Geography ☐ not applicable

☒ Same as proposing organisation's address

Street: ION CREANGA STREET 1

Town: CHISINAU

Postcode: 2069

Country: Moldova

Links with other participants

Type of link	Participant

Application forms

Proposal ID **101238034**

Acronym **AGROPATH**

Short name **UNIVERTISITEA PEDAGOGIA DE STAT ION CRE**

Main contact person

The name and e-mail of contact persons are read-only in the administrative form, only additional details can be edited here. To give access rights and basic contact details of contact persons, please go back to step - Manage your related parties of the submission wizard and save the changes.

Title Mr

Gender ○ Woman ◉ Man ○ Non Binary

First name **Vitalie**

Last name **Dilan**

E-Mail **dilan.vitalie@gmail.com**

Position in org. Assist. Prof. MSc , Head of GIS Laboratory

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Organisation data

PIC	Legal name
986279123	*OBUDAI EGYETEM*

Short name: OBUDA UNIVERSITY UNIVERSITAS BUDENSIS

Address: BECSI UT 96 B

Town: BUDAPEST

Postcode: 1034

Country: Hungary

Legal person: yes

Public body: no

Non-profit: yes

SME data

SME self-declared status: no

SME self-assessment: unknown

SME validation: unknown

Research organisation: yes

Secondary or higher education: yes

International organisation: no

Accreditations

Accreditation type: Erasmus Charter Higher Education

Accreditation number: 101013261

Expiration date: 31-12-2029

Type of Organisation

Higher education institution (tertiary level)

Departments carrying out the proposed work

Department 1

Department name: The Institute of Geoinformatics of the Alba Regia ☐ not applicable

☒ Same as proposing organisation's address

Street: BECSI UT 96 B

Town: BUDAPEST

Postcode: 1034

Country: Hungary

Links with other participants

Type of link	Participant

3 - Budget

No	Name of Beneficiary	Country	Requested grant amount
1	Lviv Polytechnic National University	UA	117 444.27
2	Politechnika Warszawska	PL	77 623.15
3	Univerza V Mariboru	SI	82 148.18
4	Aristotelio Panepistimio Thessalonikis	EL	84 718.32
5	The National University Of Water And Environmental Engineering	UA	87 397.60
6	Vinnytsia National Agrarian University	UA	89 216.60
7	National University Of Life And Environmental Sciences Of Ukraine	UA	87 440.40
8	Universitatea Tehnica A Moldovei	MD	88 319.94
9	Ion Creanga State Pedagogical University	MD	77 885.30
10	Obudai Egyetem	HU	0.00
	Total		792 193.76

TECHNICAL DESCRIPTION (PART B)

COVER PAGE

PROJECT	
Project name:	Advanced Geomatics and Remote Observation for Precise Agriculture in Terms of Higher education
Project acronym:	AGROPATH
Coordinator contact:	Borys Chetverikov, Lviv Polytechnic National University

TABLE OF CONTENTS

#@APP-FORM-ERASMUSBBLSII@#
#@PRJ-SUM-PS@# [This document is tagged. Do not delete the tags; they are needed for the processing.]

PROJECT SUMMARY

Project summary *(in English)*

The AGROPATH project (Advanced Geomatics and Remote Observation for Precision Agriculture in Higher Education) addresses the pressing need to modernize agricultural education and workforce development in Ukraine and Moldova, focusing on digital transformation and advanced geomatics. Agriculture plays a critical role in both economies, but the sectors face challenges such as outdated practices, insufficient digital skills, and the impact of Ukraine's ongoing conflict.
The project seeks to bridge these gaps by modernizing curricula in precision agriculture, integrating cutting-edge digital tools like GNSS, GIS, remote sensing, and UAVs. Key activities include updating education programs, establishing state-of-the-art geomatics laboratories, and providing tailored retraining courses for displaced individuals, rural communities, and professionals. The project will also create an open-access learning environment to ensure long-term access to high quality, multilingual educational resources.
Through cross-border cooperation with the EU, AGROPATH will enhance the digital literacy of students, educators, and agricultural professionals, fostering sustainable agricultural practices and socio-economic recovery in the region. By equipping stakeholders with the skills needed to drive digital transformation in agriculture, the project will strengthen the resilience of the sector and support long-term economic recovery and workforce development in Ukraine and Moldova.

#§PRJ-SUM-PS§# #@REL-EVA-RE@# #@PRJ-OBJ-PO@#

1. RELEVANCE

1.1 Background and general objectives

Background and general objectives

Please address all guiding points presented in the Call document/Programme Guide under the award criterion 'Relevance'.

Describe the background and rationale of the project.

How is the projectrelevant to the scope of the call? How does the project address the general objectives of the call? What is the project's contribution to the priorities of the call (if applicable)?

The **Advanced Geomatics and Remote Observation for Precise Agriculture in Terms of Higher education (AGROPATH)** project addresses the evolving challenges in the agricultural sectors of **Ukraine and Moldova**, focusing on **digital transformation**, **higher education modernization and human resource development**. Agriculture remains a cornerstone of both economies, contributing significantly to GDP and employment. In 2021, agriculture accounted for **11% of Ukraine's GDP**, employing approximately **14% of the population** (EPRS, 2024). In Moldova, the sector contributed **11% to GDP**, with **25% of the workforce engaged in agriculture** (FAO, 2023).
Both countries face critical challenges in agricultural development. Ukraine's **war-affected agrarian sector** has suffered from **reduced sown areas, land contamination** from unexploded ordnance, disrupted supply chains, and a **loss of skilled labour**. The ongoing conflict has led to a **30% decline in overall agricultural production** (FAO Report, 2023), with **grain exports** dropping by nearly **40%** compared to pre-war levels (World Bank, 2023). The **destruction of over 3 million hectares of farmland,** the displacement of **over 10,000 agricultural workers** and **damage to key infrastructure** have further exacerbated difficulties. The FAO estimates that **20-25% of Ukraine's agricultural land is contaminated with landmines**, posing significant risks to food production and rural livelihoods. In response, the Ukraine Recovery Plan, outlined in the **Lugano Declaration**, highlights **digital transformation** and **human resource development** as key to rebuilding the sector. While not directly affected by the war, Moldova struggles with **structural inefficiencies**, outdated agricultural practices, limited access to modern technologies, and fragmented landholdings. The Education 2030 Development Strategy and European Moldova 2030 National Development Strategy emphasize the urgent need for **agriculture digitalization**, workforce upskilling, and HEI-business collaboration. **Many graduates lack proficiency in digital farming technologies**, limiting their competitiveness in the labour market.
Both countries are also highly vulnerable to environmental challenges, including soil degradation, water scarcity, and the effects of climate change. A key barrier to addressing these issues is the limited integration of digital agriculture into higher education curricula. Many HEIs still follow traditional agricultural training models, which do not sufficiently equip graduates with the digital competencies required for modern agribusiness. The lack of interdisciplinary training in geospatial technologies, data analytics, and digital agronomy further hampers graduates' ability to drive innovation in the sector. Additionally, weak university-industry collaboration limits the practical application of digital agriculture solutions, particularly among small and medium-sized farms that lack access to trained specialists.
Precision agriculture, which relies on digital technologies and data-driven methods, offers a pathway to improving productivity, reducing costs, and minimizing environmental impact. A core component of this approach is **geomatics**, which focuses on collecting, analysing, and managing spatial data to support agricultural planning and land management. **Advanced Geomatics and Remote Earth Observation** encompass a range of technologies, including **Geographic Information Systems (GIS), Remote Sensing (RS), Global Navigation Satellite Systems (GNSS), and Unmanned Aerial Vehicles (UAVs)**. These tools provide high-resolution geospatial data for precise agricultural mapping, land monitoring, and resource management. A crucial role in digital agriculture also play Information and Communication Technologies **(ICTs)**, which enable **data-driven decision-making, automation, and remote monitoring**. The **FAO highlights digital literacy and access to ICT tools** as critical factors for adopting **precision agriculture** (FAO, 2022). Higher education institutions must address these challenges by modernizing curricula, enhancing training programs, and

strengthening collaboration with the agricultural sector. Despite its potential, many precision agriculture technologies remain limited due to educational, infrastructural, and institutional barriers. The AGROPATH project will empower HEIs to lead digital education, capacity-building, and applied research in geomatics and precision agriculture, ensuring lasting impact across national and regional levels.

The **general objective** of the AGROPATH project is to enhance **geomatics and digital education** for precision agriculture in Ukraine and Moldova by **modernizing curricula,** strengthening **institutional capacities,** and fostering **human resource development** through tailored training for **teaching staff, students, war-affected groups and rural communities**. Through skill development, open-access learning resources, and international collaboration, the project will contribute to **socio-economic resilience and the digital transformation of the agricultural sector**, in line with **EU priorities and the Global Gateway strategy**.

In line with **objectives and activities of the CBHE**, the project enhances the quality and labour market relevance of higher education through updated precision agriculture curricula, modern geomatics modules, and applied learning in upgraded laboratories. It also fosters HEI reform and digital transformation by developing an open-access learning environment, integrating digital skills training, and strengthening university-business collaboration. Additionally, the project promotes regional cooperation by facilitating cross-border knowledge exchange and sustainable capacity building between Ukraine, Moldova, and EU institutions.

The project contributes to the Priority "Digital Transformation" for Region 2: Neighbourhood East, particularly by supporting the development and uptake of digital skills in precision agriculture, ensuring an inclusive digital transformation that benefits diverse target groups, including war-affected individuals and rural communities. It helps bridge the digital divide by promoting digital literacy and entrepreneurship through specialized training programs and open-access learning resources. Additionally, the project fosters connectivity solutions by integrating digital learning environments, enhancing distance education opportunities, and strengthening links between education, research, and industry. By reinforcing HEI staff and students' digital skills and competencies, AGROPATH aligns with EU priorities to modernize higher education and advance sector-specific digitalization in agriculture.

In alignment with Ukraine’s national priority - Higher Education for Post-War Reconstruction, the project supports digital and green transformation, labour market recovery through retraining, and HEI-business cooperation in agriculture and environmental restoration. For Moldova, the project addresses structural challenges by strengthening institutional capacity, expanding digital skills training, and fostering cross-border collaboration with Ukraine and the EU.

The project upholds **EU core values**, ensuring equal access to education, democracy, and social inclusion. Specific attention is given to: war-affected groups in Ukraine (Internally displaced persons (IDPs), veterans, and individuals affected by military actions), offering tailored retraining programs to facilitate labour market reintegration; rural communities and underrepresented groups, providing access to open educational resources in local languages; gender-sensitive approaches, ensuring equal opportunities for women in digital agritech and geospatial sciences.

By leveraging digital transformation, advanced geomatics, and HEI capacity building, AGROPATH fosters long-term sustainability, workforce development, and economic recovery in Ukraine and Moldova. It reinforces their integration into the European Higher Education and Research Area and exemplifies a comprehensive approach to modernizing higher education in precision agriculture, enhancing employability, and strengthening HEI capacities. The project aligns with Erasmus+ CBHE objectives and priorities while contributing to broader European strategies such as the Global Gateway and the Green Deal.

1.2 Needs analysis and specific objectives

Needs analysis and specific objectives

Please address the specific conditions/objectives set out in the Call document/ Programme Guide, if applicable.
Describe how the objectives of the project are based on a sound needs analysis in line with the specific objectives of the call. What issue/challenge/gap does the project aim to address?
The objectives should be clear, measureable, realistic and achievable within the duration of the project. For each objective, define appropriate indicators for measuring achievement (including a unit of measurement, baseline value and target value).

The project **AGROPATH** addresses critical gaps in precision agriculture education and workforce development in **Ukraine and Moldova**, aligning with the specific objectives of the CBHE call. The **needs analysis** highlights key challenges and justifies the project's objectives through targeted interventions aimed at strengthening HEIs' capacity and enhancing digital skills in the agricultural sector:

- **Low Adoption of Advanced Technologies:** The agricultural industries in both countries have a low rate of adoption of geomatics, precision agriculture, and digital tools. A shortage of digital skills among students, educators, and professionals limits the effective use of technologies such as remote sensing, GIS, and data-driven farming techniques. Small-scale farmers, especially in rural areas, continue to rely on traditional farming methods, which restricts their productivity and resource efficiency.
- **Outdated and Fragmented Curricula:** The agricultural and geomatics programs at universities in Ukraine and Moldova are not fully aligned with modern standards or industry needs. The absence of integrated courses on precision agriculture, GIS, UAV technology, and smart farming techniques leaves students unprepared for current industry demands. Furthermore, practical training components are insufficient, and the connection between theoretical knowledge and real-world applications is lacking.
- **Insufficient Practical Training and Infrastructure:** The existing infrastructure for precision agriculture education at HEIs is outdated and often inaccessible, particularly for students in rural regions. Additionally, there is a lack of specialized short-term retraining programs for displaced persons, military veterans, and professionals seeking career changes. The shortage of modernized teaching labs and resources limits opportunities for hands-on training in

geospatial and precision agriculture technologies.

- **Limited Access to Digital Resources:** The lack of digital learning platforms for precision agriculture significantly limits access to essential knowledge. Rural communities, small-scale farmers, and professionals often lack the necessary tools to engage with digital learning, further widening the gap in adopting modern agricultural practices.
- **Socio-Economic and Environmental Pressures:** The war in Ukraine has created additional pressures, disrupting agricultural education and labour markets. This situation has led to a surge in demand for upskilling programs, especially for displaced persons and war-affected groups. Meanwhile, Moldova's agricultural sector struggles to modernize, with limited access to training in precision agriculture. Additionally, both countries face environmental challenges such as climate change and resource depletion, requiring a shift toward more sustainable agricultural practices.

The project's objectives are directly **derived from these needs** and are designed to provide **realistic, measurable, and achievable solutions**:

- **Modernize precision agriculture curricula** by integrating geomatics and digital technologies at 2 Ukrainian and 1 Moldovan partner universities by Year 2.
- **Develop 4 new and modernize 10 existing advanced geomatics modules** for precision agriculture by Year 2.
- **Strengthen institutional capacities** by establishing 2 precision agriculture and geomatics laboratories and enhancing 4 existing laboratories by the mid-point of the project, supporting practical training and the implementation of new modules and short-term retraining courses.
- **Improve employability and digital skills** of local target groups in Ukraine and Moldova through 6 short-term retraining courses by Year 3, contributing to socio-economic reintegration.
- **Develop an open-access learning environment** by Year 2, featuring multilingual digital learning materials in geomatics and precision agriculture to ensure long-term accessibility, drawing from the experience of EU universities, and fostering inclusive education for rural and disadvantaged communities.
- **Enhance the competencies of at least 45 teaching staff** through four intensive training sessions at EU universities by the project's midpoint, equipping them with advanced precision agriculture techniques.
- **Facilitate student engagement** in precision agriculture by organizing two seasonal schools and four online guest lecture series sessions at EU universities by Year 2, providing students with exposure to innovative technologies and cross-cultural learning experiences.
- **Ensure wide dissemination and long-term impact** by engaging at least 400 stakeholders (academic, industry, and rural communities) through digital platforms (website, social media, open-access learning environment), supporting knowledge exchange and sustainable exploitation of project results.

By addressing these needs, the project will strengthen HEIs' capacity, equip students and professionals with future-ready skills, and foster the sustainable transformation of the agricultural sector in Ukraine and Moldova.

#@COM-PLE-CP@#

1.3 Complementarity with other actions and innovation — European added value

Complementarity with other actions and innovation

Explain how the project builds on the results of past activities carried out in the field, and describe its innovative aspects (if any).

Explain how the activities are complementary to other activities carried out by other organisations (if applicable). Illustrate the trans-national dimension of the project; its impact/interest in the EU area; possibility to use the results in other countries, potential to develop /cross-border cooperation among Programme countries and Partner countries, if applicable, etc.

If your proposal is based on the results of one or more previous or ongoing projects, please provide precise references to these projects.

The AGROPATH project, brings together a unique combination of strengths from Ukrainian and Moldovan partners, as well as foreign partners from Slovenia, Hungary, Greece, and Poland. Ukrainian and Moldovan partners have strong expertise in advanced geomatics and remote earth observation, encompassing key technologies like Remote Sensing (RS), Unmanned Aerial Vehicles (UAVs), Geographic Information Systems (GIS) and Global Navigation Satellite Systems (GNSS). This expertise forms the project's backbone and will be central in delivering precision agriculture solutions through high-resolution spatial data and efficient data collection methods. On the other hand, the foreign partners bring significant experience in other crucial technologies for precision agriculture, such as the Internet of Things (IoT), information and communication technologies (ICTs), Soil Sensing, Artificial Intelligence (AI) and Machine Learning, and Cloud Computing. These advanced technologies will be instrumental in processing the data generated from geomatics and remote observation tools, enabling real-time decision-making, predictive analysis, and optimization of agricultural practices. Combining these diverse yet complementary skills will ensure that the project can address the full spectrum of challenges in precision agriculture, driving innovation and fostering sustainable practices. This partnership will create a robust, multidisciplinary team capable of developing cutting-edge solutions and advancing precision agriculture technologies in academic and practical applications. The exchange of knowledge across these areas will enhance all partners' capabilities and ensure a lasting impact on the agricultural sector. The project builds on past and existing EU initiatives in higher education, such as Horizon Europe and Erasmus+, by advancing digital transformation and precision agriculture education. Its transnational nature fosters unique collaboration between institutions from Ukraine, Moldova, Slovenia, Hungary, Greece, and Poland, integrating diverse expertise in geomatics, AI, IoT, and remote sensing. EU support is essential, as national-level interventions lack the scale and cross-border coordination needed for impactful innovation. Funding enables cooperation that would not be possible otherwise, ensuring access to advanced technologies, research, and shared knowledge. The project's outcomes—new teaching methodologies, digital tools, and

scalable educational models—are designed for broad replicability, benefiting institutions across Europe and beyond. The proposal clearly demonstrates that similar results could not be achieved without the cooperation of HEIs from EU Member States and associated countries, nor without EU funding. The project's transnational approach enables knowledge exchange, access to advanced technologies, and the development of scalable solutions in precision agriculture and digital education, fostering innovation and long-term impact beyond national capabilities.

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2. QUALITY

2.1 PROJECT DESIGN AND IMPLEMENTATION

2.1.1 Concept and methodology

Concept and methodology

Please address all guiding points presented in the Call document/Programme Guide under the award criterion 'Quality of the project design and implementation'.

Outline the approach and methodology behind the project. Explain why they are the most suitable for achieving the project's objectives.

The project is designed to ensure alignment between its objectives, methodology, activities, and budget, focusing on meeting the educational needs in precision agriculture. Each project objective is linked to specific actions aimed at achieving tangible results that contribute to the overall goals. Emphasis on updating educational programs, establishing geomatics laboratories, developing open-access educational materials, and enhancing the qualifications of both teachers and students creates a comprehensive approach to addressing the shortage of digital skills in Ukraine's agricultural sector. This aligns with the broader goal of advancing the country's agricultural sector through digital transformation and innovation.

The project's work program covers all implementation stages, including needs analysis, updating curricula, utilizing laboratories, staff training, monitoring quality, and disseminating results. Each stage is clearly defined with relevant tasks and responsibilities to ensure effective project execution. Through continuous monitoring and evaluation, the project will be able to adapt to new challenges and opportunities, ensuring maximum impact and sustainability.

Methodology:

1. The project aims to update agricultural curricula with a focus on digital technologies such as geomatics, remote sensing, and precision agriculture, using a participatory approach that involves various stakeholders. The aim of the curriculum modernisation is to include the achievements of modern technologies and their integration into precision farming by the introducing new and updating existing geomatics modules. The updated curriculum will provide practical-oriented knowledge of precision agriculture technologies, cover the applications and focus on the innovative digital technologies. Collaboration with researchers, experts, and government organizations will ensure that the programs meet European standards such as EQF, ESCO, and Europass.
2. Specialized geomatics modules aimed at precision agriculture will be created and updated using an interdisciplinary approach that brings together experts from geomatics, agriculture, and education. This process will incorporate the latest technologies and methods to optimize agricultural processes, improve land resource management, and enhance agricultural production. Developing these modules will allow agricultural professionals to improve their digital skills and adopt cutting-edge tools for effective geomatics application in real-world scenarios, promoting the development of precision farming and facilitating the implementation of innovative solutions.
3. For the successful implementation of the educational process according to modernised curricula and modules the project envisions the creation of new geomatics laboratories and modernisation of existing equipped with the necessary technology for universities in Ukraine and Moldova. Establishing these laboratories will allow students to gain both theoretical knowledge and hands-on skills essential for applying precision agriculture technologies. This will enhance the quality of education, foster research in the agricultural sector, and strengthen the connection between academia and industry, promoting innovation in agriculture.
4. The project will organize intensive courses for university lecturers from all partner universities. Four European partner will develop program and conduct theoretical and practical lessons, enabling them to master the latest precision agriculture technologies. This will enhance the qualifications of instructors and integrate Ukrainian and Moldovan curricula with international standards in the agricultural field. Including all representatives to the program will ensure familiarization with the culture and education system of different European countries, allowing participants not only to acquire professional knowledge but also to experience European culture and values, develop new scientific contacts and strengthen international relations.
5. An open-access online environment will be created to provide educational materials on geomatics and precision farming. The environment will serve as an important resource for the agricultural sector, offering access to up-to-date and high-quality materials on modern agricultural technologies. This will provide professionals, students, and farmers with continuous access to learning resources, supporting their professional development and skill enhancement. The environment will also serve as a hub for disseminating project results, ensuring long-term impact on the agricultural industry and creating new opportunities for innovation in agriculture.

6 Basing of upgraded technical and human resources the project will develop short-term retraining courses for local target groups: students, working professionals in agriculture firms, Rural Communities and Small-Scale Farmers (Moldova & Ukraine), war-affected groups (internally displaced persons, Discharged Military Personnel) in Ukraine, ensuring gender equality and inclusion.. These courses will address the need for digital skills critical to the development of the agricultural

sector. Topics covered will include geomatics, precision farming, remote sensing, UAV and other modern technologies. These courses will help participants to enhance their qualifications, master new digital tools and methods, and better adapt to changes in the labour market for the short period.
7. Guest lectures and seasonal schools will be organized for students, providing them with the opportunity to learn innovative technologies and explore the real-world applications of precision farming. This will contribute to the development of their digital skills and prepare them for careers in the modern agricultural sector.
Overall, the project's approach is systematic, consistent, and aligned with European standards, ensuring compatibility and sustainability of the project outcomes within the EU framework. Through collaboration and engagement with various stakeholders, the project will drive the long-term transformation of precision agriculture education in Ukraine and Republic of Moldova.

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2.1.2 Project management, quality assurance and monitoring and evaluation strategy

Project management, quality assurance and monitoring and evaluation strategy

Describe the measures foreseen to ensure that the project implementation is of high quality and completed in time.

Describe the methods to ensure good quality, monitoring, planning and control.

Describe the evaluation methods and indicators (quantitative and qualitative) to monitor and verify the outreach and coverage of the activities and results (including unit of measurement, baseline and target values). The indicators proposed to measure progress should be relevant, realistic and measurable.

NARRATIVE SUMMARY OF THE INTERVENTION LOGIC	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS AND PREREQUISITES
Goal (general objective) The main goal of the AGROPATH project is to enhance **geomatics and digital education** for precision agriculture in Ukraine and Moldova by **modernizing curricula, strengthening institutional capacities, and fostering human resource development** through tailored training for **teaching staff, students, war-affected groups and rural communities**.	- The number of HEIs that have implemented an updated precision farming curriculum or geomatics modules focused on modern agricultural technologies. - The number of HEI staff and students who have successfully completed training or upskilling in precision farming technologies. - The percentage increase in the adoption of modern technologies within the framework of the precision farming curriculum in HEI.	- A review of academic documentation through the analysis of official documents from higher education institutions that confirm the modernization and implementation of precision farming curricula or geomatics modules. - Surveys and feedback through data collection from educators and students via questionnaires and other mechanisms to evaluate the effectiveness of implementing modern technologies in agricultural education.	- Availability of ongoing industry advancements in precision agriculture technologies to support the integration of new technologies into the curriculum. - Collaboration and engagement of HEIs, industry stakeholders, and regulatory bodies in the curriculum modernization process. - Continued interest and commitment from HEI staff, students, and individuals in the agrarian sector to engage with and adopt new technologies in agriculture education.
Purpose (specific Objectives) - **Modernize precision agriculture curricula** by integrating geomatics and digital technologies at 2 Ukrainian and 1 Moldovan partner universities by Year 2. - **Develop 4 new and modernize 10 existing advanced geomatics modules** for precision agriculture by Year 2. - **Strengthen institutional capacities** by establishing 2 precision agriculture and geomatics laboratories and enhancing 4 existing laboratories by the mid-point of the project.	- The number of updated precision agriculture curricula and the percentage increase in the integration of digital components, such as geomatics, remote sensing, and precision agriculture concepts, within the update of agricultural curricula. - The number of specialized geomatics modules developed or	- Review of educational documentation: verification of official documents from educational institutions that detail the integration of digital components into updated agricultural curricula, including courses, plans, and approvals. - Review of documentation demonstrating the development or modernization of specialized geomatics modules, including course outlines, educational	-Support from educational institutions, availability of digital technologies and resources necessary for updating curricula with digital content, including geomatics, remote sensing, and precision agriculture. - Availability of qualified personnel or experts in geomatics and access to necessary resources and technologies for creating and providing practical training opportunities in geomatics. - Support from university administration and relevant stakeholders, proper funding

supporting practical training and the implementation of new modules and short-term retraining courses. - **Develop an open-access learning environment** by Year 2, featuring multilingual digital learning materials in geomatics and precision agriculture to ensure long-term accessibility, drawing from the experience of EU universities, and fostering inclusive education for rural and disadvantaged communities. - **Improve employability and digital skills** of local target groups in Ukraine and Moldova through 6 short-term retraining courses by Year 3, contributing to socio-economic reintegration. - **Enhance the competencies of at least 45 teaching staff** through four intensive training sessions at EU universities by the project's midpoint, equipping them with advanced precision agriculture techniques. - **Facilitate student engagement** in precision agriculture by organizing two seasonal schools and four online guest lecture series sessions at EU universities by Year 2, providing students with exposure to innovative technologies and cross-cultural learning experiences. - **Ensure wide dissemination and long-term impact** by engaging at least 400 stakeholders (academic, industry, and rural communities) through digital platforms (website, social media, open-access learning environment), supporting knowledge exchange and sustainable exploitation of project results.	modernized for precision agriculture. - The number of laboratories created in Ukrainian and Moldovan universities. - Participation indicators in courses by target groups, including university staff, students, agricultural sector practitioners, internally displaced persons, and returning Armed Forces of Ukraine servicemen. - The number of developed and uploaded learning modules and resources to the online environment. - The number of educators and teachers who participated in intensive courses. - The number of students participating in practical sessions and seasonal schools. - The level of participation in events organized to disseminate the project results.	materials, and expert feedback in the relevant field. - Review of documentation and inventory records with detailed information on equipment, tools, and resources purchased and installed in laboratories. - Tracking the number of participants who are registered and attend each course session. Participant feedback and surveys. - Monitoring and documenting the process of developing and uploading learning modules and resources to the online environment. Surveys and user feedback. - Teacher surveys and interviews to assess the impact of intensive courses on their teaching practices and professional development. - Collecting feedback from students through interviews to assess the impact of training sessions on their learning experience and skill development. - Tracking tools to monitor the number of visitors, page views, and downloads of project results and materials. Keeping records of participants registered for webinars and events, along with attendance data. Surveys and feedback forms.	and resources allocated for purchasing, installing, and maintaining equipment and resources in laboratories. - Collaboration among relevant stakeholders to promote and support educational initiatives. Access to necessary resources and infrastructure for conducting training. - Availability of qualified staff, funding, and resources for developing high-quality educational materials suitable for the environment. Promotion and dissemination, and encouragement of environment use among the target audience. - Availability of qualified trainers with experience in integrating geomatics technologies. Support for institutional policies promoting teachers' professional development. - Availability of experts and relevant resources for conducting practical workshops and seasonal schools, including agricultural fields, equipment, and educational materials. Motivating students to actively participate in practical learning opportunities. - Promotion and marketing activities to increase awareness of the availability of project results and resources through digital channels. - Supportive policies from relevant stakeholders. Ongoing maintenance and updating of digital environments to ensure accessibility and relevance of the disseminated project results and resources over time.

Our AGROPATH project includes a comprehensive quality assurance system for all activities, which will be led by a lead partner with experience in managing international projects. The project management will focus on ensuring effective communication, active partner involvement, technical accuracy, cost-effectiveness and transparency. Regular steering group meetings, online sessions and face-to-face meetings with partners will be key to monitoring progress and promptly resolving any issues. In addition, direct contact with Erasmus specialists is foreseen for advice and support. Monitoring visits and external evaluations by international experts will be organized to ensure quality control. Their conclusions will continuously improve all aspects of the project implementation. Digital transformation will become a key tool for ensuring environmental sustainability within the AGROPATH project. Efforts will focus on implementing innovative digital solutions to reduce the carbon footprint, automate monitoring processes, and manage resources more efficiently, while also promoting environmentally friendly practices. Particular attention will be given to the use of digital technologies for optimizing production, reducing waste, and integrating sustainable technologies into precision farming.
We aim to incorporate environmental sustainability through the digitalization of educational programs and training methods for agricultural sector specialists. This will facilitate the adoption of advanced technologies and adherence to environmental standards at every stage of the project, fostering sustainable development within the industry.

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2.1.3 Project teams, staff and experts

Project teams and staff

Describe the project teams and how they will work together to implement the project.

List the staff included in the project budget (budget category A) by function/profile (e.g. project manager, senior expert/advisor/researcher, junior expert/advisor/researcher, trainers/teachers, technical personnel, administrative personnel etc — use the same profiles as in the detailed budget table, if any (n/a for prefixed Lump Sum Grants)) and describe briefly their tasks. Provide CVs of all key actors (if required by the Call document/Programme Guide).

Name and function	Organisation	Role/tasks	Professional profile and expertise
Borys Chetverikov	LPNU	Project coordinator / Local team leader	DSc, Assoc.Prof. of the Department of Photogrammetry and Geoinformatic. An active participant in the projects TEMPUS and CADSES INTERREG. Experienced in collecting, processing, and implementing geoinformation systems in various fields, processing remote sensing data, and applying remote and georadar methods. Vice President of the Public Union "Ukrainian Society of Geodesy and Cartography," Deputy Chairman of the Board of the PO "Western Geodetic Society of the USGC." Delegate from Ukraine to the General Assembly of the European Council of Surveyors (CLGE). Expert of the Ministry of Education and Science of Ukraine for the evaluation of scientific projects. Co-author of curricula "Digital Technologies of Precision Agriculture" in LPNU. ORCID: https://orcid.org/0000-0001-8677-1735.
Lyubov Babiy	LPNU	Project team member	Senior lecturer, responsible for international activity of the Department of Photogrammetry and Geoinformatics. She has a master degree on Land Management and real property formation in Royal Institute of technology (Sweden). She is interested in Photogrammetry, RS, GIS, and Land management. She has experience in projects such as Tempus, CADSES INTERREG and NAWA and their implementation in LPNU as assistant of local coordinator and administrator. Technical secretary Ukrainian Society of Photogrammetry and Remote Sensing. ORCID: https://orcid.org/0000-0002-5772-4865
Khrystyna Marusazh	LPNU	Project team member	Ph.D. in Geodesy, Photogrammetry, and Cartography (2021). Associate professor of the Department of Photogrammetry and Geoinformatics. The scientific field of interest focuses on Earth surface monitoring through the use of remote sensing and GIS technologies. Participant in the KA1 – Learning Mobility of Individuals – Staff mobility for teaching and training activities between programme and partner countries (2022, 2024). Member of the organizing committee of the annual International Conference of Young Professionals "GeoTerrace". Co-author of curricula "Digital Technologies of Precision Agriculture". ORCID: https://orcid.org/0000-0002-4889-0781
Iryna Zayats	LPNU	Project team member	PhD in Geodesy, Photogrammetry and Cartography (2015). Associate professor of the Department of Photogrammetry and Geoinformatics. The scientific field of interest focuses on GIS, RS, spatial analysis, photogrammetry and digital mapping. Research interests include precision agriculture, agricultural and water resources monitoring and modeling using Earth observation, and spatial analysis in GIS. An active participant in scientific and international projects TEMPUS and NAWA. Participant in the Erasmus+ Staff mobility for teaching and training activities (2022) and Staff mobility within the NAWA Strategic Partnership Programme (2023). ORCID: https://orcid.org/0000-0002-3838-5431
Joanna Pluto-Kossakowska	WUT	Local team leader	Experienced manager of research (e.g. soil / agri sciences) and didactic projects e.g. in Erasmus and mobility programs. Long-serving teacher in remote sensing field.
Anna Fijałkowska	WUT	Project team member	Experienced teacher in GIS field, e.g. applications and spatial analysis. Long-standing administrator and coordinator of postgraduate studies.
Magdalena Pilarska-Mazurek	WUT	Project team member	Experienced teacher in photogrammetry field. Trainer of UAV operators. Co-creator of educational programmes in geodesy and cartography field.
Jurij Rakun	UM	Local team leader, Coordinator at UM	Assistant professor in the field of computer science, focusing on the use of ICT in agriculture, including topics such as digital signal processing, pattern recognition, computer vision, agricultural robotics and other related topics.
Miran Lakota	UM	Project team member,	Associate professor with a background of mechanical engineering. Head of the Chair of biosystems engineering at the Faculty of Agriculture and Life Sciences. Focusing on agricultural robotics, renewable energy sources, and other.
Denis Stajnko	UM	Project team	Full professor in the field of agriculture. Focusing on fruit prognosis

		member,	systems, soil science, sustainable agriculture and other related areas.
Peter Vindiš	UM	Project team member,	Assistant professor in the field of agriculture. Working on topics related to precision agriculture, including UAVs, remote sensing and other related technologies.
Benjamin Založnik	UM	Project team member,	Holds a masters in safe food, with a background in Biosystems Engineering. Just started working as a researcher at the Chair of Biosystems engineering and is a future PhD candidate.
Thomas Alexandridis, Professor	AUTH	Local team leader	Agronomist with a specialization in remote sensing and geoinformatics. Research interests include precision agriculture, environmental, agricultural and water resources monitoring and modeling using Earth observation, and spatial analysis of geographic data in GIS.
Thomas Koutsos, Laboratory Teaching Staff	AUTH	Project team member	Scientific interests lay in the fields of Geo-Informatics, Spatial Analysis for precision agriculture applications, Geographical Information Systems, management of the agricultural and natural resources and wastes, Data Visualization, and Spatial Statistics.
Nikolaos Karapetsas, Research Associate	AUTH	Project team member	Soil Scientist experienced in applied research in agri-environmental Geographical Information Systems and Remote Sensing in agricultural and environmental applications.
Ruslan Yanchuk	NUWEE	Local team leader	Ph.D. in Geodesy, Photogrammetry, and Cartography (2008). Head of the Department of Geodesy and Cartography. Lecturer of the specialty “Land Management” and “Geoinformation Systems and Technologies” Accreditation expert of the National Agency for the Quality of Higher Education of Ukraine; Member of the qualification commission for the certification of geodesy and GIS specialists in Ukraine; Member of the Board of the Ukrainian Society of Geodesy and Cartography. ORCID: https://orcid.org/0000-0002-4809-032X
Oleksandr Yanchuk	NUWEE	Project team member	Ph.D. in Geodesy, Photogrammetry, and Cartography (2011). Lecturer of courses in Geodesy, Building and managing geospatial databases. Certified surveying engineer. The scientific field of interest includes spatial analysis, geoinformation modeling, and geospatial databases. The areas of scientific work are the improvement of methods and means of conducting geodetic monitoring using modern technologies. ORCID: https://orcid.org/0000-0001-5361-790X
Olha Dmytriv	NUWEE	Project team member	Ph.D. in Cadastre and Land Management (2004). Her scientific and pedagogical experience is 20 years. Lecturer of courses in Geodesy, GIS. The areas of scientific work are improvement of Predictive assessment of the development of the territories of ecologically dangerous objects.
Oleksandr Kholodiuk	VNAU	Local team leader	PhD in Machines and means of mechanisation of agricultural production, associate professor .Head of the Department of Agricultural Engineering and Technical Service. Has skills in using precision farming tools, including unmanned aerial vehicles for spraying fields. Teaches educational disciplines, such as precision farming systems, navigation systems in agriculture, geoinformation analysis and satellite geodesy. ORCID ID: http://orcid.org/0000-0002-4161-6712
Valerii Hraniak	VNAU	Project team member	PhD in Instruments and methods for controlling and determining the composition of substances. Head of the Department of Power Engineering, Electrical Engineering and Electromechanics. Has skills in using electronic automated systems and developing measuring equipment. ORCID ID: 0000-0001-6604-6157
Vitalii Yaropud	VNAU	Project team member	Dean of the Faculty of Engineering and Technology. Scientific interests are focused on: ensuring optimal parameters of the microclimate in livestock premises;development and improvement of the ventilation system in livestock premises using renewable energy sources. Teaching experience in topics of Machinery and equipment for agriculture ORCID ID: https://orcid.org/0000-0003-0502-1356
Taras Ievsiukov	NUBiP	Local team leader	Doctor of Sciences (2016), Professor. Dean of Land management faculty. Appraiser for Expert Monetary Valuation of Land. Certified Engineer in Geodesy. Certified Engineer in Land-Use Planning. Collaborated with the “German-Ukrainian Agricultural Policy Dialogue” (APD). Designed and participated in a professional training program for students and professional land surveyors in Ukraine, INSPIRE directive (2022). Collaborated with the USAID’s Projects: “Agriculture Growing Rural Opportunities Activity In Ukraine”, Support for Agrarian and Rural Development"). Consultant of The Word Bank (Program "Supporting Transparent Land Governance in Ukraine", Implementation The State

			Agrarian Register In Ukraine, 2020-2021). ORCID: https://orcid.org/0000-0002-0992-5582
Antonina Moskalenko	NUBiP	Project team member	Associate Professor. Head of the Department of Geoinformatics and Aerospace Research of the Earth. Research directed on the geoinformation mapping for assessing the state of land resources; geoinformation modelling to ensure rational use and protection of land resources, geospatial databases design. ORCID: https://orcid.org/0000-0001-7538-8044
Vyacheslav Bogdanets	NUBiP	Project team member	Ph.D. in Agricultural Sciences. Assoc. Prof. of the Department of Geodesy and Cartography. Research directed on the development and implementation of environmental mapping, wetlands and nature reserves mapping, assessment of environmental and social impact of landscape component changes, assessment of environmental variables for sustainable development. Has experience of participating in Joint scientific Ukrainian-Czech project. ORCID ID 0000-0003-0051-1778
Livia Nistor-Lopatenco	TUM	Local team leader, Project Coordinator	Dean of FCGC-TUM. Associate Professor, PhD in Engineering. Expertise: Photogrammetry and Cadastre. Has great experience as project coordinator of ERASMUS CBHE and ENNI-CROSS BORDER COOPERATION calls
Pantaz Alexandr	TUM	Project team member	Vice Dean FCGC-TUM. Expertise: GIS and Remote Sensing He is high skilled in project implementation of ERASMUS CBHE and ENNI-CROSS BORDER COOPERATION calls
Seinic Valeriu	TUM	Project team member	University assistant. Expertise: Application of UAV And GPS In Agricultural, Forestry And Cadastral Activities. Actively participated in 2 ERASMUS CBHE projects in TUM
Vitalie Dilan	UPSC	Local team leader	MSc in Geoinformatics, assist. prof. at the Faculty of Geography, chief of the GIS Lab. Expertise: GIS, Web GIS, remote sensing, spatial data, SDI. Has large experience as team leader in Tempus, ERASMUS CBHE, H2020 projects. Member of 2 national working groups (of the Agency of Geodesy, Cartography and Cadastre).
Lucia Capatina	UPSC	Project team member	PhD in Geonomics Sciences, Lecturer, Faculty of Geography. Expertise: SDI, sustainable development, GIS, environmental protection. Part of the GEOBIZ E+ Project (TL), other projects-funded by GEF-SGP, WB, UNDP.
Gherman Bejenaru	UPSC	Project team member	PhD in Geonomics Sciences, senior researcher in GIS Lab. Expertise: GIS, environmental protection, sustainable management of natural resources, hydrology, agroclimatology, adaptation of regional climate change scenarios, applied climatic research.

Outside resources (subcontracting, seconded staff, etc)

If you do not have all skills/resources in-house, describe how you intend to get them (contributions of members, partner organisations, subcontracting, etc).

If there is subcontracting, please also complete the table in section 4.

The Obuda University (OU) will be involved in the implementation of tasks throughout all project flow, especially in tasks related to the development of Learning materials precise farming education, as they have great experience in this field. OU will receive financial support from the Hungarian government with 0% of required EU contribution. External evaluation is planned by international experts. They will conduct financial and technical assessments. The evaluation will start from the third year until the end of the project. During this assessment, they will interact online and offline with key stakeholders and project key persons and develop a final report based on feedback. The evaluator selection process will be transparent, emphasizing gender equality and cost-effectiveness, with minimized travel well-coordinated meetings.

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2.1.4 Cost effectiveness and financial management

Cost effectiveness and financial management *(n/a for prefixed Lump Sum Grants)*

Describe the measures adopted to ensure that the proposed results and objectives will be achieved in the most cost-effective way.

Indicate the arrangements adopted for the financial management of the project and, in particular, how the financial resources will be allocated and managed within the consortium.

⚠ *Do NOT compare and justify the costs of each work package, but summarize briefly why your budget is cost effective.*

Insert text

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2.1.5 Risk management

Critical risks and risk management strategy

Describe critical risks, uncertainties or difficulties related to the implementation of your project, and your measures/strategy for addressing them.

Indicate for each risk (in the description) the impact and the likelihood that the risk will materialise (high, medium, low), even after taking into account the mitigating measures.

***Note:** Uncertainties and unexpected events occur in all organisations, even if very well-run. The risk analysis will help you to predict issues that could delay or hinder project activities. A good risk management strategy is essential for good project management.*

Risk No	Description	Work package No	Proposed risk-mitigation measures
1	Delays in participative processes - *low*	WP 1	Include in the Quality plan financial control of partners Increase the intensity and frequency of communication between project members.
2	Technical problems to implement changes to curricula or integrating geomatics modules into educational process - low	WP 2 WP 5	During the trainings in EU, partner country university teachers and administration will visit different administration Departments to see the methods and protocols used. Local regulations in partner countries will be followed for implementation of curricula and geomatics modules. Getting clear timelines for approval processes of new curriculum and geomatics modules.
3	Stakeholder Engagement - low	WP 3 WP 4 WP 6	Establish clear communication channels, foster stakeholder involvement through regular meetings and updates, and address conflicts proactively. The goals of the project directly coincide with existing universities stakeholders - according previous discussion.
4	Male students will not be able to leave Ukraine. Due to the war in Ukraine, men of military age will not be able to participate in events abroad. Male teachers mainly are able for mobilities - high	WP 4	Revise the conditions of participation, mechanisms for selecting and evaluating available resources depending on the military situation in Ukraine. Enable men of military age to participate in certain events remotely. Planning most of the project's training events within Ukraine. Clearly explain and justify the selection of candidates.
5	Laboratories are not successfully created in due time. Funding is not sufficient to purchase the equipment. Change in the exchange rate of the national currency of Ukraine and Republic of Moldova to the EUR. Equipment delivery is delayed - medium	WP 3	Clearly explain the financial guidelines and rules of the project at the kick-off meeting and include summary documents on the websites. Try to obtain sufficient offers from providers for equipment acquisition. Equipment prices are determined by market prices in the territory of the European Union. Optimally calculate the amount of equipment for efficient functioning of laboratories
6	External experts are available for visiting partner countries - medium	WP 4 WP 6	Allocate sufficient time for external evaluation so appropriate experts can be selected
7	Possibilities of blackout and risks of unstable internet connection in Ukraine and Republic of Moldova - medium	WP 1 WP 4 WP 5 WP 6	Guarantee the use of outsource server equipment for safety and security on international cloud services. Create a conducive environment for the successful execution of the project.
8	Unstable political and military situation in Ukraine - high	WP 1 WP 2 WP 3 WP 4 WP 6	Despite the ongoing full-scale military conflict, universities in Ukraine have shown remarkable resilience and dedication in fulfilling their tasks and sustaining their operations throughout the period. Conduct a thorough evaluation of the project vicinity and the designated transportation routes to ensure the safety and security of personnel and equipment. Effective coordination with local authorities and security forces is essential to safeguard the project team and participants. By working closely with these entities, the project can align itself with local security measures and proactively address any security risks that may arise. The project envisages the possibility of holding events in online or mixed formats.
9	The lack of fluid communication between partners and coordinator - low	WP 1 WP 2 WP 4 WP 5	To facilitate effective communication between the coordinator and partners, it is essential to embrace flexibility and utilize a wide array of communication tools. These tools may include the internet, conferences, email, social networks, and meetings,

		WP 6	among others.
10	Administration will not continue supporting the project - low	WP 2 WP 3 WP 5 WP 6	The project participants voluntarily agreed for the project preparation and implementation and the project goals are in accordance with the university's goals declared. The results of the project have an effect regardless of external circumstances, because they are based on the development of personal skills and are implemented with the digital tools. The partners possess a wealth of expertise in executing collaborative international initiatives. In the process of preparing the application, it was ensured that all partners had a clear understanding of the application submission guidelines and the obligatory co-financing the winning application from their university
11	The government will not continue supporting the project - low	WP 4 WP 6	The project participants are interested and selected by voluntary consent. The prolonged effect of the results will increase confidence in the current political forces
12	Lacks of fairness and inclusivity for the process for choosing candidates for technical training and workshops - medium	WP 4	Clearly explain and justify the selection of candidates. By establishing conditions for participation, implementing fair selection procedures, and evaluating freely accessible resources, equal access to selection mechanisms is provided for all university staff.

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2.2 PARTNERSHIP AND COOPERATION ARRANGEMENTS

2.2.1 Consortium set-up

Consortium cooperation and division of roles (if applicable)

Please address all guiding points presented in the Call document/Programme Guide under the award criterion 'Quality of the partnership and the cooperation arrangements'.

Describe the participants (Beneficiaries, Affiliated Entities, Associated Partners and others, if any) and explain how they will work together to implement the project. How will they bring together the necessary expertise? How will they complement each other?

In what way does each of the participants contribute to the project? Show that each has a valid role and adequate resources to fulfil that role.

The project AGROPATH brings together a unique combination of strengths from Ukrainian and Moldovan partners, as well as EU partners from Slovenia, Greece, Poland and Hungary.

Lviv Polytechnic National University (LPNU) founded in 1816, consists of 17 institutes including Institute of Geodesy, offers higher education in 16 curricula from the bachelor's level to Ph.D. The Department of Photogrammetry and Geoinformatics has experienced staff in international projects in the fields of GIS, UAV and RS. Being the first Ukrainian university, who established new Educational program on Digital Technologies of Precision Agriculture, it faced modern requirements of Ukrainian economy and labour market. LPNU will lead the main management and quality control overall project. Warsaw University of Technology (WUT) is the biggest academic institution of higher education in engineering and related topics in Poland and experienced in implementation of the internationalization process, including international and European academic and research programs. WUT has great experience in application of UAV and RS and innovative teaching methodology to enhance the hard skills of Ukrainian and Moldovan teachers in advanced geomatic technologies for precise agriculture. WUT is Lead partner in WP 6. The University of Maribor (UM), is one of the largest and most prominent public universities in Slovenia, recognized for its commitment to academic excellence, research, and innovation. Within UM, the Faculty of Agriculture and Life Sciences plays a crucial role in advancing sustainable agricultural practices and technological innovations.UM already plays a key role in bridging technology and agriculture, leveraging its expertise in computer science, robotics, and biosystems engineering to introduce innovative digital solutions for farming. As the leader of WP4, and a key contributor to WP4,5 UM will collaborate with partners to develop an integrated and innovative approach to digital farming education. Aristotle University of Thessaloniki (AUTH), is one of the largest academic institution in Greece and one of the largest in South-eastern Europe covering all disciplines and scientific fields.Over the last 5 years AUTH has either coordinated or participated in more than 5.000 national, European and international research projects. The Lab of Remote sensing, spectroscopy and GIS of the School of Agriculture focuses work and research activities on Earth Observation and RS, Data science and Intelligence Systems. Vinnytsia National Agrarian University (VNAU) includes 3 institutes, 8 faculties and 5 professional colleges and is a part of the network of prestigious international organizations: the Visegrad University Association (VUA) and the Black Sea Universities Network (BSUN). The university is part of an educational experimental group focused on the introduction of dual education in Ukraine. VNAU is a powerful center of agricultural education and will be actively involved in all project activities and will be leader for WP5. National University of Life and Environmental Sciences of Ukraine (NUBiP) includes departments of basic university in Kyiv and 10 separate regional units in the whole Ukraine. NUBiP is a well known institution in modern agriculture. The Land Management faculty includes such departments as Management of Land Resources, Land Cadastre, Land Use Planning, Geodesy and Cartography, GIS and RS and provides geomatic modules for students on specialty of Agrarian engineering. NUBiP will support the inclusion of innovative educational technologies into Ukrainian and Moldovan and having a large experience in innovative digital precise farming equipment NUBIP is the leader of WP3.

National University of Water and Environmental Engineering (NUWEE) has 51 bachelors' programs, 58 masters' programs, PhD and DS programs, more than 7 000 students and 550 academic staff. NUWEE has advances in water management engineering, construction and architecture, geodesy and GIS technologies, transport technologies and services, agronomy, economics and business. Since the department of Geodesy and Cartography possess a renowned expertise in the development and implementation of curriculum, their experience will play a crucial role in development of retraining courses on application of geomatics methods in precise agriculture in Ukraine and Moldova and their use for post-war recovery efforts in Ukraine. Technical University of Moldova (TUM) was founded in 1964. In 2022, following the merger by absorption of the State Agrarian University, TUM expanded its educational offer by introducing 3 new faculties including Agricultural Sciences. TUM has 3 academic degrees, and plays a crucial role for training of the professionals for Moldovan agriculture labour market.TUM will be the leader partner for WP2 sharing its experience in numerous international projects on curriculum development. "Ion Creanga" State Pedagogical University (UPSC) mission is training of highly qualified staff on the national and international labor market; creating lifelong learning opportunities; preservation, development and promotion of cultural- historical national values in the context of cultural diversity. Faculty of Geography, including GIS Lab, is actively involved in curricula development and infrastructure modernization as one of the key issues for training highly qualified professionals in geomatics, who can then adapt easier to labour market needs. UPSC will participate in all project activity and effort on Organization of the Labor Market Day and other dissemination activity in Moldova. Obuda University (OU) is one of the largest and strongest technical universities in Hungary. ÓU is the founder of the Hungarian STEM platform, supported by the EU STEM Coalition. The Institute of Geoinformatics of the Alba Regia Technical Faculty is a leading institution on education of RS, surveying engineering, GIS, geodesy, land management engineering in Hungary. Since the great experience as coordinating organization in ERASMUS+ project IRSEL (2017-2020) in making a joint E- learning environment OU will be highly useful in the project implementation, especially in Work Package 5, which focuses on creating an open access learning environment and developing learning materials. OU is an associated partner of the project and will get financial support from the Hungary government.

2.2.2 Consortium management and decision-making

Consortium management and decision-making (if applicable)

Explain the management structures and decision-making mechanisms within the consortium. Describe how decisions will be taken and how regular and effective communication will be ensured. Describe methods to ensure planning and control.

Note: *The concept (including organisational structure and decision-making mechanisms) must be adapted to the complexity and scale of the project.*

The Project Management Group will be responsible for carrying out management tasks. It will consist of representatives from each partner and will be led by the Project Coordinator. All decisions that impact the operational activities of the project will be made through consensus among all committee members or by a majority vote. The committee members will always consider the perspectives of their institutional leaders, such as rectors, directors, or department heads. Special attention will be given to the opinions and suggestions of local administrative participants, as they represent the primary stakeholders and the public from the partner countries.

Whenever possible, the Project Management Group will strive to make decisions by consensus. However, if consensus cannot be achieved, decisions will be made by a majority vote. The project tasks will be divided into work packages (WPs), with WP leaders playing a crucial role in their execution. Communication will be maintained through various channels, including email, phone, Zoom, MS Teams, WhatsApp, and face-to-face meetings. The cornerstone of all management activities will be effective communication and mutual respect among all partners. Active participation of staff, students, and administration from partner institutions will be highly valued. Additionally, the project will prioritize technical efficiency in task implementation, cost-effectiveness in all planned activities, and transparency in both technical and administrative reports.

Project management will strictly adhere to EU regulations and best practices, as well as the project guidelines agreed upon by partners in the grant and partnership agreements. Open and direct communication will be maintained with Erasmus officers to ensure effective collaboration. Each partner organization will appoint a local coordinator responsible for reporting on activities and financial results to the Project Coordinator. All partners will be subject to the same financial and reporting rules. It is crucial that financial management is conducted efficiently and transparently, in full compliance with EU regulations and the rules of the consortium universities. The International Department of Lviv Polytechnic National University (LPNU) will oversee all financial transactions, and whenever possible, payments will be made through bank transfers.

Ukrainian universities and universities of the Republic of Moldova are led by experienced professionals who hold key positions such as faculty deans and department heads. They have already demonstrated their ability to manage effectively at the local level. Furthermore, participants have extensive experience in successful collaboration through joint projects, scientific research, and academic publications. This experience is a crucial factor in fostering successful cooperation and promoting future mutual understanding.

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3. IMPACT

3.1 Impact and ambition

Impact and ambition

Please address each guiding points presented in the Call document/Programme Guide under the award criterion 'Impact'.

Define the expected short, medium and long-term effects of the project. Who are the target groups? How will the target groups benefit concretely from the project and what would change for them?

The project aims to enhance the integration of new technologies in Agriculture Education by modernizing and implementing a Precision Agriculture Curriculum, focusing on human resource development through skill enhancement for Higher Education Institutions (HEI) staff, students and individuals in the agrarian sector. By incorporating cutting-edge technologies, the project can contribute to a technological revolution in agriculture, leading to increased efficiency, sustainability, and productivity.

Short-Term Effects:

- Implementation of improved curricula in precision agriculture, enhanced skillset among teachers involved in the educational programmes "Agroengineering" and "Agronomy" and including the principles and technologies of precision agriculture as an integral and basic component of curricula.
- increased digital engagement in learning - the development of the open-access online environment will provide professionals, students, and farmers with continuous access to learning resources, supporting their professional development and skill enhancement.
- increase access to training - the creation of an open-access online environment and short-term retraining courses will make specialised training more accessible, especially for veterans transitioning to civilian professions and IDPs;
- immediate research collaboration between participating universities and acquisition of relevant competencies by students of the precision agriculture programme.
- increased awareness of precision agriculture.

Medium-Term Effects:

- improved the educational infrastructure - integrating geomatics, GIS, RS, GNSS technologies, AI and the IoT into higher education curricula in the field of precision agriculture, which will contribute to the training of higher-level specialists. Collaboration with researchers, experts, and government organizations will ensure that the programs meet European standards such as EQF, ESCO, and Europass.
- improving the skills and qualifications of university lecturers - organized intensive courses for university lecturers from all partner universities will enhance the qualifications of instructors and integrate Ukrainian and Moldovan curricula with international standards in the agricultural field and develop new scientific contacts and strengthen international relations.
- upgraded technical and human resources - developed short-term retraining courses for local target groups will help participants to enhance their qualifications, master new digital tools and methods, and better adapt to changes in the labor market for the short period.
- social adaptation and integration of veterans and Internally Displaced Persons - the short-term retraining courses will aid their integration into the workforce by providing them with targeted skills and qualifications
- Improving the technical base for training - the purchase of special equipment for universities to use in the educational process will enhance the quality of education, foster research in the agricultural sector, and strengthen the connection between academia and industry, promoting innovation in agriculture.

Long-Term Effects:

- opportunities for innovation and entrepreneurship in agriculture - created an Open-Access online environment will serve as an important resource for the agricultural sector, offering access to up-to-date and high-quality materials on modern agricultural technologies. This will provide professionals, students, and farmers with continuous access to learning resources, supporting their professional development and skill enhancement.
- sustainable integration of precision agriculture in the educational process - the developed modernized agricultural curricula with a focus on the innovative digital technologies such as geomatics, remote sensing, and precision agriculture will contribute to the updating curricula beyond the participating institutions.
- a wider collaboration with the stakeholders and industry transformation - through collaboration with various stakeholders, the project will contribute to the long-term transformation of precision agriculture education in Ukraine and the Republic of Moldova

TARGET GROUPS:

Teaching Staff and Students The primary target group of this project is lecturers, researchers, and students of agricultural curricula. Lecturers and researchers involved in curriculum modernisation and research in the field of agriculture will acquire new competencies in the intensive training courses and workshops in European partner universities and will have newly equipped labs to convert the ideas into projects and the projects into outcomes. This will enhance the qualifications of instructors and integrate Ukrainian and Moldovan curricula with international standards in the agricultural field.

Students will be able to learn and apply knowledge and innovative technologies in precision agriculture and apply them in the current social problems that the country has, improving labour market opportunities. Their education, reinforced by modernised curricula, is crucial to ensure that they are well prepared to meet the growing demands of the agricultural industry. The result of their mastery of modern innovative technologies is their competitive advantage in the labour market.

Working professionals in agriculture firms, Rural Communities and Small-Scale Farmers. The AGROPATH project also targets professionals in the agricultural sector to upgrade their skills in the field of precision agriculture using digital technologies. The short-term retraining courses and an open-access online environment with access to up-to-date and high-quality materials on modern agricultural technologies developed for these people ensure that they remain at the forefront of their field, armed with the latest knowledge in precision agriculture. This target group receives training and support in applying modern digital technologies (e.g. remote sensing, IoT, GIS) to restore and enhance agricultural productivity.

War-Affected groups (Internally Displaced Persons (IDPs), Discharged Military Personnel) in Ukraine. Another significant target group is the individuals forced to relocate due to the war, seeking new career opportunities and veterans returning to civilian life and transitioning to civilian professions. The AGROPATH project will provide them with specialised retraining programmes focused on precision agriculture and geospatial technologies to facilitate their integration into the civilian workforce. Short-term retraining courses in digital agriculture and geomatics at partner universities will help them to enhance their qualifications, master new digital tools and methods, provide them with competencies in precision agriculture and better adapt to changes in the labor market for the short period. This approach not only contributes to their personal and professional development, but also unlocks their potential to contribute to the reconstruction of the country.
Industry Partners. Stakeholders from the industry will benefit from young professionals with new competencies. Universities will support industry to increase the markets and address society's problems.
Benefits. Access to an open-access environment featuring multilingual digital learning materials in geomatics and precision agriculture. Short-term acquisition of practical skills through hands-on training in geomatics tools, UAV technology, and GIS, enabling diverse target groups to acquire new competencies in precision agriculture practices. Fostering cross-border exchange of knowledge and expertise. Increased awareness of precision agriculture's potential and its role in sustainable farming practices, generating interest and support for the project. Establishment of connections between students and industry partners, providing internship opportunities and aligning education with industry needs. Implementation of advanced training courses in precision agriculture for industry professionals and modernisation of existing curricula to provide students with new competencies in precision agriculture. Overall, the impact and ambition of this project extend beyond the immediate academic sphere to influence the agricultural industry, technological innovation, and global collaboration in addressing the challenges and opportunities of precision agriculture.

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3.2 Communication, dissemination and visibility

Communication, dissemination and visibility of funding

Describe the communication and dissemination activities which are planned in order to promote the activities/results and maximise the impact (to whom, which format, how many, etc.). Clarify how you will reach the target groups, relevant stakeholders, policymakers and the general public and explain the choice of the dissemination channels.

Describe how the visibility of EU funding will be ensured.

Basic communication activities are: kick-off meeting; day-to-day management meetings; annual meetings of the project management group; local environment, where all administrative and technical documentation will be available to partners, fostering transparency and communication; the website of the project, where all information about project activity will be present and one-on-one meetings based on specific needs or problem solutions. Project communication and scientific supervision are provided by regular meetings of the project groups. The involvement of enterprises and the business community will be carried out through wide information about thematic innovation seminars, the involvement of participants will be done through official invitations also. The final conference on the completion of the project will be held in Lviv, Ukraine, which will facilitate the wide dissemination of information about the results of the project at the local level.
The process of making the results and deliverables of a project available to the stakeholders and to the wider audience will be done by the website,
To share project updates, relevant articles, and engage with a wider audience a social media profiles will be created and actively manage (e.g., Facebook, Instagram, YouTube)
To disseminate information about the project, there will be active engagement with stakeholders, including government agencies, non-governmental organizations and industry partners, to inform them of the progress of the project and ask for their input.
Also, engaging stakeholders and students to participate in project events is an important part of the dissemination.
The development of a dissemination strategy will be part of the project management plan. To disseminate educational resources, an online open-access learning environment will be developed as part of the project.
As the most common method of disseminating the project results, we will use publications in social networks, web-sites and professional scientific journals.
We expect to have a major impact on the student community by involving them in training and workshops, which will be covered both through traditional ways of informing students - university websites, deans' offices, announcements - and through modern channels such as social networks. To bring together key stakeholders, including employers, educators, researchers, and students, to bridge the gap between academia and industry, to facilitate networking, knowledge exchange, and career opportunities in the rapidly evolving sector of precision agriculture the Labor Market Day in the field of precision agriculture in Ukraine and Moldova will be organized.
The project funding is divided into 6 work packages, which are mainly used to finance researchers, the opening of teaching laboratories, some technical equipment and software, travel to project meetings, trainings and practices for students and teachers, workshops and conferences.
The creation of new curricula in precision agriculture will increase the social attractiveness of the speciality among students and the development of agricultural policy in Ukraine. Promotional information materials will disseminate the developed and modernized curricula of precision agriculture among university applicants. The information will also be highlighted on social networks to attract a wider target audience.
The visibility of EU funding for the project will be ensured by clearly mentioning the EU funding in all project-related communication materials, including websites, newsletters, press releases, and reports, in public announcements related to project milestones, events, and achievements. All support documents and materials will support with EU Logo and Branding. Information about EU funding for the project will be presented in a dedicated section on the project website. All

presentations, workshops, and training sessions will include a segment acknowledging EU funding and explaining its importance for the project

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3.3 Sustainability and continuation

Sustainability, long-term impact and continuation

Describe the follow-up of the project after the EU funding ends. How will the project impact be ensured and sustained?

What will need to be done? Which parts of the project should be continued or maintained? How will this be achieved? Which resources will be necessary to continue the project? How will the results be used?

Are there any possible synergies/complementarities with other (EU funded) activities that can build on the project results?

The WP6 tasks will be focused on promoting the maintenance of the achievements and philosophy of the project on a long-term basis, involving the Higher education institutions, students and society in promoting ideas and activities that ensure sustainability.During the project meetings, workshops, training and courses will be programmed to attract stakeholders and promote sustainability. Some of the activities will be: organize workshops, trainings to attract social stakeholders, meetings of project participations, teachers, staff and students, contacts with stakeholders and agriculture industry representatives, short-term retraining courses for representatives from various target groups.
Modernization existing or developing new curricula of precision agriculture according European recommendations will have the support of university administrations and the Ministry of Education and Science of Ukraine and the Ministry of Education and Research of Moldova.
To ensure the continued success and long-term sustainability of the project after the conclusion of EU funding, the following strategies will be implemented:
- Ongoing curriculum management - curricula and geomatics modules will be continuously updated to meet the latest industry standards and technologies.
- Continuation of retraining courses in partner Ukrainian and Moldovan universities will allow them to support agricultural branches with properly skilled staff in the field of digitization of agriculture methods and approach. That will have the impact on the overall enhancement of agrarian business and economy of these countries.
- Resource allocation and management: development of laboratories for geomatics in precise agriculture will be implemented to attract and retain students, teachers and specialists. Investments in special equipment and technology, especially for developing open-access learning environment, will be a priority.
- Public Engagement and Marketing: advertising and highlighting of the projects achievements and offerings will promote broad involvement of rural communities and all target groups.
Given that the project objectives align directly with the strategic aims of educational development outlined by the Ministry of Education and Science of Ukraine and the Ministry of Education and Research of Moldova, as well as with the trajectories for university advancement detailed in the internal documents of partner institutions, and given their reflection of the pressing societal needs, there is a strong assurance that the initiatives instigated by the project will persist in their evolution. Specifically, the alignment of educational curricula at the national scale will bolster employers' confidence in professionals and elevate the demand for graduates. The introduction of retraining courses for stakeholders will contribute to the exchange of knowledge and the acquisition of new competencies in the field of precision agriculture.
The developed open-access learning environment, which will be available after the project is completed, will allow specialists to acquire new skills in precision agriculture, and retraining courses and workshops will provide an opportunity to get acquainted with new equipment and precision agriculture technologies.
Collectively, these outcomes will fortify the competitiveness of Ukrainian and Moldovan professionals on a European scale and foster their further integration into the European and global educational and scientific realms.
Continuation of the project after the end of EU funding is a key aspect to maintain its results and impact. To ensure the continued success and long-term sustainability of the project after the end of the EU funding, a strategy of continuous curriculum management will be implemented and applied: the curriculum will be continuously updated based on the latest technological advances in precision agriculture.
The development of open-access educational materials and their integration into the digital learning environment will foster a knowledge-sharing ecosystem that extends beyond the project’s duration. The interaction of universities with policy makers, industry stakeholders, and agricultural enterprises will help bridge the gap between academic research and real-world application. Through ongoing knowledge dissemination efforts, universities will ensure that precision agriculture education evolves with industry advancements, reinforcing their role as a leading hubs for digital and sustainable innovation in agriculture.
The universities can provide services to agricultural enterprises of the region in the analysis of remote sensing data performed by unmanned aerial vehicles in the development of recommendations for the implementation of the following technological operations, which will allow receiving financing from the private sector. To attract private investors, universities can offer and implement partnership programs for companies interested in developing precision agriculture by organising short-term training and retraining courses. Also it is possible to provide education, training and courses for teachers and students from other universities, rural communities and small-scale farmers, allowing them to work with new precise agricultural technologies in the future. Therefore, the university can become a leading centre of precision agriculture in the region.
By strategically implementing these measures, the project can transition from a funded initiative to a self-sustaining, impactful and influential force in the field of precise agriculture in higher education. The careful continuation of key project components, coupled with the proactive pursuit of new opportunities, will contribute to the project's enduring success

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4. WORK PLAN, WORK PACKAGES, ACTIVITIES, RESOURCES AND TIMING

4.1 Work plan

Work plan *Provide a brief description of the overall structure of the work plan (list of work packages or graphical presentation (Pert chart or similar)).*
WP 1. Project Management and Quality control T1.1. Kick-off meeting T1.2. Day-to-day management of the project T1.3 Annual meetings of the project management group T1.4.Quality assurance T1.5. External evaluation WP 2. Creation and Modernization of Innovative Geomatic Modules for Precision Agriculture Curricula T.2.1. Analysis and comparison of Ukrainian, Moldovan and European curricula T.2.2. Creation and modernization of geomatics modules T.2.3. Modernization of curricula WP 3. Enhancement of Geomatics infrastructure in precise agriculture T.3.1. Development of precise agriculture and geomatics laboratories T.3.2. Enhancement of existing precise agriculture and geomatics laboratories WP 4. Human Resource Development: Education & Training T.4.1. Development and implementation of intensive courses for teachers in the field of geomatics methods used in precise agriculture T.4.2. Development and Conducting of short-term retraining courses for local target groups T.4.3. Development and Implementation of student seasonal schools in European universities T.4.4. Guest lecturing of innovating technologies in precision agriculture WP 5. Open access learning environment and learning materials T.5.1. Development of open access learning environment and its long life usability T.5.2. Development of learning materials T.5.3. Integration of materials into national languages T5.4. Joint workshop on innovative teaching methods WP 6. Dissemination and Exploitation T.6.1. Dissemination and marketing of project outcomes T.6.2. Organization of the Labor Market Day in the field of precision agriculture in Ukraine T.6.3. Actions to enhance the project's sustainability T.6.4. Final dissemination conference

4.2 Work packages, activities, resources and timing

Work Package 1

Work Package 1

Work Package 1: Project Management and Quality control			
Duration:	M1 – M36	**Lead Beneficiary: LPNU**	WP1. Management

Objectives

- To skilfully manage the project and cultivate a culture of quality within the consortium.
- To ensure the smooth execution of each project phase and its monitoring.
- To promote transparent communication among all stakeholders to uphold international cooperation and align educational initiatives within the precise agriculture field.
- To build a collaborative network within Ukrainian, Moldovan and European partners.

Activities and division of work (WP description)

Task No (continuous numbering linked to WP)	Task Name	Description	Participants		In-kind Contributions and Subcontracting (Yes/No and which)
			Name	Role (COO, BEN, AE, AP, OTHER)	
T1.1	Kick-off meeting	The kick-off meeting will be in Warsaw organized by WUT and LPNU. It will include: ● Introduction of partners ● Revision of the project proposal ● Establishment of a project management group ● Development of quality and dissemination plan ● Development of a work plan for the first year	LPNU all partner universities	COO BEN	
T1.2	Day-to-day management of the project	It aims to maintain transparent communication with all partners, overseeing activities from initial planning to implementation, evaluation, and reporting. All partners will be involved in the planning and implementation of project activities. The project coordinator (LPNU) will oversee the smooth organization of all project activities, ensuring funds are transferred promptly to achieve planned outcomes, and addressing partner requirements and concerns throughout project execution.	LPNU all partners	COO BEN	
T1.3	Annual meetings of the project management group	There will be a total of 4 meetings of the project management group. To be cost-effective, some of them will be programmed together with other activities of the project. The main questions included in agenda will be: Presentation of key achievements and milestones reached during the past year. Review of project goals	LPNU all partners	COO BEN	

		and their alignment with current activities, review of financial reports and actual outcomes, setting goals and priorities for the upcoming year, monitoring of quality plan implementation			
T1.4	Quality assurance	Quality assurance will be implemented in all project activities. Quality plan will be created and aimed to evaluate project activities' progress; achievement of objectives and outcomes; risk assessment. The co-ordinator will work closely with the lead partner of each work package to effectively monitor the progress of activities. Lead partner will report achieved results to the co-ordinator. The co-ordinator will make a monitoring visit to all partner country universities to on-site inspect activities and facilities established by the project.	**LPNU** all partners	COO BEN	
T1.5	External evaluation	External evaluators will conduct an on-site assessment of the project's progress during the last year in Ukraine and Moldova and review all reports. During this assessment, they will interact with key stakeholders, such as teachers, students, administrative staff, industry and retrained persons to monitor the planned outcomes. Additionally, they will tour the newly established laboratories, evaluate curriculum modernization, review the effectiveness of quality assurance measures implemented by each partner and provide recommendations.	**LPNU** all partner universities	COO BEN	Subcontracting: 9000 euros for external evaluation, including travels and costs of the evaluation report.

Milestones and deliverables (outputs/outcomes)

Milestone No (continuous numbering not linked to WP)	Milestone Name	Work Package No	Lead Beneficiary	Description	Due Date (month number)	Means of Verification
MS1	Establishment of the project management group.	1	LPNU	Project management group is a main decision making and controlling body of the project and consists of the project coordinator (from LPNU) and all local coordinators from each partner organization	M2	Minute from the kick-off meeting detailing the formation of the project management group, including names, roles, and responsibilities of members.
MS2	Day-to-Day management of the project.	1	LPNU	For each WP the leader partner is assigned, who will be responsible for the work plan, its implementation, communication, control and reporting. Additionally the tasks within the WP have also coordinator partner and beneficiaries for proper management and implementation. Current online meetings and communications (via messengers, calls, e-mails) with the project partners additionally to annual project management group meetings will help review progress, solve problems and critical situations, and support decision-making	M36	Work plans for each work package finalized and assigned to lead partners and published on the project web-site Smooth transfer of funds to partners to start project activities. Reports about progress
MS3	Approval of the quality plan.	1	LPNU	Development of documents and guidelines that will define Evaluation, Quality and Risk Assessment procedures. The quality plan will be developed, approved by all partners, and published on the website as PDF files.	M3	Detailed plan for project evaluation, monitoring of activities and financial issues, quality control and assessments of risks

Deliverable No (continuous numbering linked to WP)	Deliverable Name	Work Package No	Lead Beneficiary	Type	Dissemination Level	Due Date (month number)	Description (including format and language)
D1.1	Work plans and task allocation.	1	LPNU	R	PU	M2	After each meeting, the coordinator will develop a comprehensive action plan outlining specific tasks, assigned responsibilities, deadlines, and anticipated outcomes to ensure effective follow-up and progress throughout the project.
D1.2	Progress reports and status updates from all partners.	1	LPNU	R	PU	M36	All partners will send to the WP leader and coordinator the progress report about WP tasks implementation. Summary report on each WP be written by WP leader and published on the project website.
D1.3	Monitoring visits to Ukrainian and Moldovan partners	1	LPNU	R	PU	M35	The coordinator will conduct visits to 3 partner universities in Ukraine and 2 in Moldova. During these visits, he will gather feedback and reports from partners regarding project progress and any challenges encountered; assess the collaboration between partners and identify any communication gaps; engage with students and social stakeholders to monitor project implementation and dissemination efforts; discuss and propose strategies to enhance the project's efficiency
D1.4	External evaluation report	1	LPNU	R	PU	M35	Evaluation reports in PDF prepared by independent experts

Work Package 2

Work Package 2: Project Management and Quality control			
Duration:	M4 – M24	**Lead Beneficiary: TUM**	WP2. Curricula Modernisation
Objectives			
▪ To study European, Ukrainian and Moldovan curricula for precise agriculture in order to apply European experience and introduce new geomatic related topics, modules and educational technologies into Ukrainian and Moldovan curricula on precise agriculture within the framework of the European Green Deal, Digital Transformation and current demands of Ukraine and Moldova. ▪ To develop and modernize geomatic related modules aligned with current and emerging trends in the agricultural sector. ▪ To infuse new technology into modules and curricula and emphasize practical, real-world applications of theoretical concepts. ▪ To modernize curricula of Ukrainian and Moldovan partner universities by introducing new and updated modules.			
Activities and division of work (WP description)			

Task No (continuous numbering linked to WP)	Task Name	Description	Participants		In-kind Contributions and Subcontracting (Yes/No and which)
			Name	Role (COO, BEN, AE, AP, OTHER)	
T2.1	Analysis and comparison of Ukrainian, Moldovan and European curricula	This activity will include joint workshop "Peculiarities of modern precise agriculture curricula" in TUM (Moldova), as well as seminars, discussions, and working groups meetings will be implemented to revise existing Ukrainian, Moldovan and European curricula of partner universities, make their analysis and comparison, and develop conclusions for modernisation of Ukrainian and Moldovan curricula of partner universities.	TUM all partners	COO BEN	
T2.2	Creation and modernization of geomatics modules	Development of 4 new modules related to geomatics methods for the precision agriculture is planned: • Satellite RS technologies in precise agriculture • Application of UAV in precise agriculture • GNSS technologies in precise agriculture • GIS analysis based on integrated geospatial data from various sources Partners are expected to make minor changes to the title and content of modules according to the features of their curricula. Additionally, during the project 10 existing modules will be considered and modernised by including partially data from above mentioned modules to face innovative technology and current level of digital transformation in agriculture of developed countries.	NUBIP all partners	COO BEN	
T2.3	Modernization of curricula	On the basis of new developed and updated modules 2 Ukrainian (LPNU, VNAU) and 1 Moldovan (TUM) universities will modernize their curricula. Depending on the universities specializing in either agrarian or technical fields, various modules will be implemented adaptively. For example, the number of credits ECTS for each module may vary in different curricula. Other beneficiary partners will not change curricula structure, but just update the existing modules. The aim of the modernised curriculum is to present the achievements of modern technologies and their integration into precision farming. This curriculum provides practical-oriented knowledge of precision agriculture technologies, covering both the applications and the different technologies (e.g. satellite remote sensing systems and UAV, geographic information systems (GIS), global navigation satellite systems (GNSS), variable rate application etc. that make precision farming (PF) possible.	VNAU LPNU, TUM	COO BEN	

Milestones and deliverables (outputs/outcomes)

Milestone No (continuous	Milestone Name	Work Package No	Lead Beneficiary	Description	Due Date (month	Means of Verification

numbering not linked to WP)					number)	
MS4	Workshop of partner responsible staff “Peculiarities of modern precise agriculture curriculum”	2	TUM	Representatives of all partner universities will meet in TUM Moldova and discuss the common issue related to an education program, its focus on a labour market, development of new digital technologies in the field of precise agriculture.	M4	Workshop summary with developed strategy of new modules development and modernisation for each Ukrainian and Moldovan partner.
MS5	Working groups formation	2	LPNU VNAU NUBIP NUWEE TUM UPSC	Each Ukrainian and Moldovan partner university will form a working group to make analysis, find weak and strong sides of their geomatic modules and curricula related to precision agriculture comparatively with partner’s. The selection of an individual focus for each university's curriculum is a crucial element, encompassing both regional characteristics and the university's objectives. This focus should be harmonized with the European Green Deal, state and role of agricultural sector and digital transformation, post-war recovery in Ukraine, and level of internal migration, thereby integrating these aspects seamlessly.	M5	Lists with working groups members
MS6	Official decision of appropriate Councils/Commissions and university’s administrations bodies agreeing changes in curricula of partner Universities of Ukraine and Republic of Moldova.	2	LPNU, VNAU, TUM	Each university has established its own guidelines for curriculum updates. The preferred documents for this milestone is the official document signed by responsible bodies and the university's administrations for each university.	M24	The official document signed by responsible authority board for each university. Official procedure and title of responsible boards can differ relating to the country and university.

Deliverable No (continuous numbering linked to WP)	Deliverable Name	Work Package No	Lead Beneficiary	Type	Dissemination Level	Due Date (month number)	Description (including format and language)
D2.1	Lists of educational modules, that will be planned to be developed and updated for Ukrainian and Moldovan partners	2	NUWEE	R	PU	M1	Each Ukrainian and Moldovan partner university will prepare a list of educational modules including proposed upgrading and development plan
D2.2	Modernised curricula with detailed educational plan for LPNU, VNAU and TUM.	2	TUM	R	PU	M24	LPNU, VNAU and TUM will develop the modernised curricula including education plan with structure, lectures, practical exercises, case-studies, projects, description of educational approaches, credits system and evaluation criteria. The curricula will be supported with developed LE and LM and adopted by university boards. Language - Ukrainian, Romanian

Work Package 3

Work Package 3: Enhancement of Geomatics Infrastructure for Precision Agriculture			
Duration:	M2 – M15	**Lead Beneficiary:** NUBIP	WP3. Infrastructure

Objectives

- To analyse the market proposals of the available equipment and software according to needs for Ukrainian and Moldovan partner universities.
- To purchase equipment.
- To modernize existed and create new laboratories for student training and retraining courses in Ukrainian and Moldovan partner universities.

Activities and division of work (WP description)

Task No (continuous numbering linked to WP)	Task Name	Description	Participants		In-kind Contributions and Subcontracting (Yes/No and which)
			Name	Role (COO, BEN, AE, AP, OTHER)	
T3.1	Development of precise agriculture and geomatics laboratories	2 New laboratories for precise agriculture will be created in LPNU and TUM. They will be equipped with highly specialized products allowing application of modern geomatics methods for precision agriculture. Created laboratories should satisfy the implementation of training of new modules developed in T2.2. and short-term retraining courses developed in T4.2. LPNU and TUM will provide proper space and installations for their laboratory. Each laboratory will include highly specialized products for precision agriculture and working stations (computer with specialized geomatic software and possibilities to connect with other equipment)	NUBIP LPNU TUM	COO BEN	
T3.2	Enhancement of existing precise agriculture and geomatics laboratories	4 partner universities (VNAU, NUWEE, NUBIP, UPSC) need to enhance their existing laboratories with innovative technical means for precise agriculture and geomatics modules to face the training of new modules developed in T2.2. and short-term retraining courses developed in T4.2. Laboratories will be updated with new equipment and software.	NUBIP VNAU, NUWEE, UPSC	COO BEN	

Milestones and deliverables (outputs/outcomes)

Milestone No (continuous numbering	Milestone Name	Work Package No	Lead Beneficiary	Description	Due Date (month	Means of Verification

not linked to WP)					number)	
MS7	Registration of project in the responsible government bodies of Ukraine and Republic of Moldova	3	LPNU UPSC	The responsible government bodies of Ukraine and Republic of Moldova recommend registering international scientific and technical programs and projects in accordance with the defined Procedure ian legislation. It will allow to avoid taxes for the equipment purchase	M2	Registration document of project issued by the responsible government bodies of Ukraine and Republic of Moldova
MS8	Purchase of new lab equipment after the analysis of needs and market proposals	3	LPNU, VNAU, NUBIP, NUWEE, TUM, UPSC	Each Ukrainian and Moldovan partner university will perform an analysis of the available equipment and software on the market according to their needs. The brand and model of each equipment will be selected after a detailed analysis of the technical specifications and price offers on the market.The general list of equipment will include: Copter-type UAVs (multispectral drones, spraying drones); GNSS Receivers; Specialized workstations; Software licenses (PIX4D, Leica GeoOffice, ERDAS, DJI Terra); Parallel driving systems; Weather station; Mini laboratory for soil analysis + test kit; Consumables, maintenance, and spare parts for UAVs.	M6	Documents proved the purchase of equipment and its acceptance on accounting and balance by Ukrainian and Moldovan universities.

Deliverable No (continuous numbering linked to WP)	Deliverable Name	Work Package No	Lead Beneficiary	Type	Dissemination Level	Due Date (month number)	Description (including format and language)
D3.1	List of equipment for each Ukrainian and Moldovan university	3	NUWEE	R	PU	M2	List of equipment will be created for each partner university in Ukraine and Moldova
D3.2	Installation of new equipment and integration in university's laboratory network	3	LPNU, VNAU, NUBIP, NUWEE, TUM, UPSC	DEM	PU	M8	LPNU and TUM will allocate and prepare the premises for new laboratories. Then all Ukrainian and Moldovan partners will perform installation of new equipment and its integration with already existing equipment. Each partner commits to conducting the essential labeling of the laboratory in alignment with the project's funding.
D3.3	Testing new equipment for training	3	LPNU, VNAU, NUBIP, NUWEE, TUM, UPSC	R	PU	M18	Report on results of implementations training classes and feedbacks from participants for each Ukrainian and Moldovan partner

Work Package 4

Work Package 4: Human Resource Development: Education & Training			
Duration:	M5 – M34	**Lead Beneficiary: UM**	WP4. Education & Training

Objectives

- To enhance cross-cultural learning experiences and to strengthen academic ties between the European,Moldovan and Ukrainian involved institutions
- To increase the hard skills of Ukrainian and Moldovan teachers in advanced geomatic technologies for precise agricultureTo support utilization of digital tools and technologies in the field of Precision Agriculture, contributing to staff professional development and enhancement of digital skills and literacy
- To enhance human resource development in the field of precise agriculture, including persons, involved in the agrarian sector of the economy in both country Ukraine and Republic of Moldova, and war-affected groups (internally displaced persons, Discharged Military Personnel) in Ukraine
- To increase knowledge transfer and acquisition by students of additional competencies related to the technologies of precision agriculture

Activities and division of work (WP description)

Task No (continuous numbering linked to WP)	Task Name	Description	Participants		In-kind Contributions and Subcontracting (Yes/No and which)
			Name	Role (COO, BEN, AE, AP, OTHER)	
T4.1	Development and implementation of intensive courses (4 courses total -1 in each European University) for teachers in the field of geomatics methods used in precise agriculture	4 seven-day intensive courses (1 in each European partner university and OU) for teachers from Ukrainian and Moldovan universities who are involved in the education process on precise agriculture engineering subjects are planned. The purpose is to increase skills of teaching staff for sustainable improvement of precise agriculture education. Participants will be trained on innovative teaching/learning methodologies The proposed topics will include: (UM) - Innovative Pedagogy in Precision Agriculture: Integrating information and communication technologies (ICT) into the Classroom (AUTH) Spatial analysis of the data for precision agriculture. (WUT) Aerial and satellite solutions in Remote Sensing for GIS supporting landscape and agriculture (OU) Basic knowledge of precision farming technology, data acquisition and processing, advanced methods application and field demonstrations	UM, AUTH, WUT, NUWEE LPNU, NUWEE, NUBIP, VNAU, TUM, UPSC	COO BEN	
T4.2	Development and	Introducing new digital technologies into the agrarian sector requires the higher skills of working	NUWEE, TUM	COO	

	Conducting of short-term retraining courses for local target groups (in Ukraine and Moldova)	staff. To fill this gap in Ukraine and Moldova it is planned to develop short-term retraining courses which will be functioning on the base of Ukrainian and Moldovan partner universities. The courses will propose new working possibilities for already involved professionals in both countries and other target groups in Ukraine: internally displaced persons and discharged military personnel (for example in Ukrainian military forces there are a large number of high skilled drone operators, persons dealing with digital maps, etc, and after discharging they can retrain their skills for peaceful agrarian profession) . It is planned that courses will continue their functioning after project completion. The teaching staff trained on the intensive courses (T4.1) and modern laboratories (T3.1 and T3.2) will be involved.	UM, AUTH, WUT, LPNU, NUBIP, VNAU, UPSC	BEN	
T4.3	Development and Implementation of student (2 total) seasonal schools in European universities	To enhance cross-cultural learning experiences 2 seven-day seasonal schools for students will be organized in European partner universities (UM and AUTH). Student groups will include students from Ukrainian and Moldovan universities. Sending universities will provide a selection procedure to appoint the most appropriate participants for each school. Receiving universities will implement training and practice according to the developed program and schedule.	UM, AUTH LPNU, NUWEE, NUBIP, VNAU, TUM, UPSC	COO BEN	
T4.4	Guest lecturing of innovating technologies in precision agriculture	Professors of European partner universities will conduct four sessions (organised by each European partner) of on-line lectures for students of all partner universities in the field of geomatics and innovative technologies in precise agriculture (English). Additionally, Ukrainian and Moldovan stakeholders will conduct two lectures for Ukrainian and two for Moldovan students correspondingly on national languages. With dissemination aim students from non partner universities will have the possibility to participate.	UM AUTH, LPNU, NUWEE, NUBIP, VNAU, TUM, UPSC, WUT	COO BEN	

Milestones and deliverables (outputs/outcomes)

Milestone No (continuous numbering not linked to WP)	Milestone Name	Work Package No	Lead Beneficiary	Description	Due Date (month number)	Means of Verification
MS9	Joint workshop Modern obligatory skills and knowledge in geomatics and remote sensing methods for students in precise agriculture	4	NUBIP	Joint Workshops of European and Ukrainian Teachers focus on advancing geomatic technologies for precise agriculture is a collaborative event which brings together educators from Europe and Ukraine to explore and share insights on cutting-edge geomatic technologies. The event will be organised in on-line format that will allow to increase the number of participants and invite representatives from other universities and decrease travel cost.	M11	Workshop summary, cooperation plans
MS10	Development of program and schedule for intensive courses	4	AUTH	For successful implementation of intensive courses each European partner and OU will develop a comprehensive program and schedule for their courses based on the available human and technical resources. Each program will include theoretical and practical training, case studies, and visits to stakeholders (agricultural enterprises applying precise farming)	M20	Documents with program and schedule for each intensive course will be sent to Ukrainian and Moldovan partners a month before courses start
MS11	Workshop:	4	WUT	Ukrainian, Moldovan and European partners will meet together on the workshop in WUT to discuss and develop the curricula (structure,	M22	List of short-term retraining courses for each Ukrainian

	Development of structure, content and time-table for short-term retraining courses			description, content, training and evaluation methods) for the 5 short-term courses with the following titles: • Satellite RS technologies in precise agriculture • Application of UAV in precise agriculture • GNSS technologies in precise agriculture • GIS analysis based on integrated geospatial data from various sources • Geoinformation analysis of UAV data to ensure the safety of agriculture in certain territories. (affected by Russian intervention) (Only for Ukrainian partners)		and Moldovan universities with detailed description and educational program.
MS12	Development of program and schedule of seasonal schools for students	4	UM	The proposed title and content will cover main technologies used in advanced precise agriculture: • Winter School: Geospatial Data Analysis and Spatial Interpolation Techniques for Precision Agriculture Content:Geospatial Analysis, statistics and Interpolation methods for application in Precision Agriculture. Educational field visit to rice and wine producers implementing precision agriculture techniques • Summer School: Future Farmers: Exploring the World of Precision Agriculture and ICT (UM) Content: Introduction, Hands-on ICT and Exploring Robotics in Agriculture; Smart Farming with Sensors and IoT; Sustainability and the Future of Farming. Field case studies.	M19	Detailed program for each seven-day event

Deliverable No (continuous numbering linked to WP)	Deliverable Name	Work Package No	Lead Beneficiary	Type	Dissemination Level	Due Date (month number)	Description (including format and language)
D4.1	Customizable certificates for participants who complete the intensive courses to acknowledge their attendance and participation	4	AUTH	R	PU	M22	Upon the effective execution of the intensive courses program, attendees for each session will receive certificates detailing the primary subjects covered and the total duration of the program
D4.2	Conducting pilot short-term retraining courses for stakeholders in Ukrainian and Moldovan universities	4	NUWEE, TUM	DEM	PU	M33	Each Ukrainian and Moldovan partner university will conduct at least one pilot short-term course for representatives of its region. The training group will consist of 10 students, the duration of the courses will be five days, and upon successful completion of the training, the participants will receive appropriate certificates.
D4.3	Certificates with a description of the theoretical and practical competencies acquired by students during the training in season schools	4	UM	R	PU	M21	After successfully completing the courses program, participants in each seasonal school will be awarded certificates that outline the main topics, overall, credits and obtained competences. Outcomes of the training program will be transferred in the sending universities as informal education results.
D4.4	Evaluation report based on feedback from	4	UM	R	PU	M34	Analysis of feedback from students and teachers will be

	participants of project training events (intensive courses for teaching staff, short-term retraining courses, and summer schools)						implemented by each responsible partner to identify strengths and areas for improvement. Summing-up joint report will be formed under leadership of UM

Work Package 5

Work Package 5: Open access learning environment and learning materials					
Duration:	M13 – M30	**Lead Beneficiary: VNAU**		WP5. Learning materials	
Objectives					
▪ To develop learning materials (LM) in advanced geomatics and remote sensing in precise agriculture in terms of higher education using experience of European universities. ▪ To develop an open access learning environment in geomatics modules in precise agriculture for sustainable use of developed data and materials ▪ To study and apply innovative teaching methods					
Activities and division of work (WP description)					
Task No (continuous numbering linked to WP)	Task Name	Description	Participants		In-kind Contributions and Subcontracting (Yes/No and which)
			Name	Role (COO, BEN, AE, AP, OTHER)	
T5.1	Development of open access learning environment (LE) and its long life usability	The project is aimed at raising awareness in Precision Agriculture by developing innovative teaching materials, methods and learning support systems. It forecasts the development of the LE on a base of on-line sources with open access (digital video-sharing platforms, social media website) for allocation of developed LM, video-lectures, case studies, labs, database, as well as existing e- learning systems in beneficiary partner universities.	VNAU UM,AUTH, WUT, OU LPNU, NUWEE, NUBIP, VNAU, TUM, UPSC	COO AP BEN	
T5.2	Development of learning materials (LM)	Development of digital LM is planned for new and modernized modules and short-term retraining courses. The content of new modules and short-term courses is similar. So LM will be developed for both types of education without extra labour expenses. Short-courses are more practically oriented and include additional topics relating to the war influence peculiarities.	VNAU UM,AUTH, WUT, OU LPNU, NUWEE, NUBIP, VNAU, TUM, UPSC	COO AP BEN	

T5.3	Integration of learning materials into national languages	It is planned that in the final version most of the LM will be in Ukrainian and Romanian languages, but during development all Ukrainian, Romanian and English languages will be used. Some specific materials, as for example, data sets, will be in English.	NUBIP, TUM LPNU, NUWEE,, VNAU, UPSC	COO AP BEN	
T5.4	Joint workshop on innovative teaching methods	Workshop is planned to ensure the use of innovative teaching methods in the educational process at universities. Participants will consider, discuss, and highlight innovative teaching and evaluation methods and the possibilities of their implementation for education in precision agriculture. The event will be organised in on-line format that will increase the number of participants from other universities and decrease project travel cost.	NUWEE OU, UM,AUTH, WUT LPNU, NUWEE, NUBIP, VNAU, TUM, UPSC	COO AP BEN	

Milestones and deliverables (outputs/outcomes)

Milestone No (continuous numbering not linked to WP)	Milestone Name	Work Package No	Lead Beneficiary	Description	Due Date (month number)	Means of Verification
MS13	Workshop " LM development strategy"	5	LPNU	Workshop will discuss LM development strategy. and include two main topics: Development of LM (content and format, delivery criteria, review (internal or external), templates, formats, types, etc) and Development of open access LEt (agree specification, structure, content, accessibility, internet means, etc). Additionally, partners will discuss expected learning outcomes and sustainability of the materials and environment. It will be organized in OU as it has large high skills experience in LM development.	M16	Resume of workshop activity with detailed list and description of planned LM and LE structure

Deliverable No (continuous numbering linked to WP)	Deliverable Name	Work Package No	Lead Beneficiary	Type	Dissemination Level	Due Date (month number)	Description (including format and language)
D5.1	Open access elearning environment with digital learning materials adopted to national languages for Ukrainian and Moldovan partners	5	VNAU	DEM, DEC, DATS	PU	M22	The description of LE will be located on the site of AGROPATH project and local sites of the partner's department. It will provide links and access to the LE content and LM (digital video-sharing platforms, social media website existing e- learning systems in beneficiary partner universities. It is planned that each partner university will continue to develop, fill with new materials and use the environment after the project completion. Public access to all learning materials developed during the project will be ensured.
D5.2	Report of quality assessment of e-learning environment and learning materials	5	VNAU	R	PU	M30	After testing the LE and LM during the pilot short-term retraining courses and student training in Ukrainian and Moldovan universities, the report on quality assessment will be developed on the basis of feedback from course participants and teachers..

Work Package 6

Work Package 6: Dissemination and Exploitation			
Duration:	M1 - M36	**Lead Beneficiary: WUT**	WP6. Dissemination

Objectives

- To disseminate project activities, outputs, and outcomes to the national and international educational community and relevant stakeholders.
- To ensure the visibility and impact of the project within the academic, scientific, and agricultural communities.
- To promote project activities and results through multiplier events and distribution of visual identity products.
- To facilitate the exploitation and uptake of project results for sustainable impact and knowledge transfer.

Activities and division of work (WP description)

Task No (continuous numbering linked to WP)	Task Name	Description	Participants		In-kind Contributions and Subcontracting (Yes/No and which)
			Name	Role (COO, BEN, AE, AP, OTHER)	
T6.1	Dissemination and marketing of project outcomes	The creation of the project website, where all information about the project will be presented, social networks profiles and the use of local universities websites will serve as primary channels for sharing project outcomes and promoting project initiatives online. The websites and social networks are a central tool for disseminating and communicating all project results, providing users with valuable support and information. Regular updates on the websites and social networks will ensure that users are informed about new activities and interim results. High-quality communication materials, including brochures, flyers, posters, and multimedia content, to promote project activities and outcomes and promotional materials for university applicants will be developed. All project-related communication materials, including websites, newsletters, press releases, and reports, in public announcements related to project milestones, events, and achievements will mention the EU funding.	LPNU all partners	COO BEN	
T6.2	Organization of the Labor Market Day in the field of precision agriculture in Ukraine and Moldova	The Organization of the Labor Market Day in the field of precision agriculture in Ukraine and Moldova aims to bring together key stakeholders, including employers, educators, researchers, and students, to bridge the gap between academia and industry, to facilitate networking, knowledge exchange, and career opportunities in the rapidly evolving sector of precision agriculture.	UPSC LPNU, NUBIP, NUWEE, VNAU, TUM	COO BEN	

T6.3	Actions to enhance the project's sustainability	Collaboration with partner institutions to integrate project results, such as curricula modernisation and the development of geomatics modules, into their educational programmes and research activities and to ensure the sustainability of project initiatives and long life application. The project workshops, training visits and meetings aim to foster cross cultural exchanges, encourage educational and research collaboration, build the capacity and equip teachers with the knowledge to educate the next generation on leveraging geomatic technologies for sustainable and efficient farming practices The open-accessLE will support continuous long life learning and skills enhancement for both student training and retraining of working professionals and other target groups. An opening ceremony will take place for each of 3 new laboratories of geomatics and precise agriculture to promote and market the new facilities. Staff and students, representatives of external stakeholders, and local mass media will be invited to the opening ceremonies.	NUBIP all partners	COO BEN	
T6.4	Final dissemination conference	A number of activities to promote the dissemination of the project results in the long term. Specifically, the concluding conference is expected to encompass the following components: QC presentation. Highlighting innovations, methodologies, and technologies developed or utilized during the project. Presentation of the developed open access LE Presentation of modernized curricula and developed geomatics modules Discussion of the results of the pilot training stream and student feedback Presentation of key findings, achievements, and outcomes of the project across all work packages. Presentation of project outcomes sustainability and long life continuation of developed activity Final evaluation workshop of the project management group The final dissemination conference, organized by LPNU, will take place in Lviv and will be open to students, educators, businesses, and the broader community.	LPNU all partners	COO BEN	

Milestones and deliverables (outputs/outcomes)

Milestone No (continuous numbering not linked to WP)	Milestone Name	Work Package No	Lead Beneficiary	Description	Due Date (month number)	Means of Verification
MS14	Development of dissemination activity plan	6	LPNU	On the kick-off meeting, the plan for dissemination activity will be created with description of activity, responsibility and timing.	M2	Dissemination plan
MS15	Official opening ceremony of Precise Agriculture Lab in LPNU and WUT	6	LPNU, VNAU, TUM	The official opening of the Geomatics and Precise Agriculture Labs is planned to demonstrate the capabilities of laboratories and their potential impact on research, education, and industry collaboration with cutting-edge technologies such as drones, RS equipment, GIS, and PF tools. Industry partners will also have the opportunity to engage with university stakeholders, exploring opportunities for collaboration, technology transfer, and knowledge exchange.	M15	Highlighting in local media and project web-site

Deliverable No (continuous numbering linked to WP)	Deliverable Name	Work Package No	Lead Beneficiary	Type	Dissemination Level	Due Date (month number)	Description (including format and language)
D6.1	Created website of the project and social networks profiles	6	LPNU	R, DEC,OTHER	PU	M3	Creation and Launch of project website and social networks profiles with promotion and advertising the project and planned events to as many people in society as possible. The project website will be created in English, local universities websites will be Ukrainian and Romanian languages.
D6.2	Developed communication and promotion materials	6	NUBIP	R, DEC,OTHER	PU	M34	All promotion materials will be printed and distributed. Regular newsletters, posters and articles will be published at the project website and social networks. Publications about main project events will be done in local news media.Languages: English and national of all partners
D6.3	Collaboration between partner institutions, industry and society	6	WUT	R, DEM,OTHER	PU	M36	Integration project results into curricula and research activities, organization of workshops, training, retraining courses and seasonal schools. Development of project sustainability including establishment of future educational and scientific cooperation between HEIs and signing agreements

Events meetings and mobility

Events meetings and mobility

This table is to be completed for events meetings and mobility that have been mentioned as part of the activities in the work packages above

Give more details on the type, location, number of persons attending, etc.

Event No (continuous numbering linked to WP)	Participant	Description					Attendees
		Name	Type	Area	Location	Duration (days)	Number
E1.1	LPNU and WUT - leading, participants: all partners	Kick off meeting	meeting	Kick off meeting	Warsaw, Poland	2	LPNU,WUT - 2 UM, AUTH, NUBIP, VNAU, NUWEE, TUM, UPSC, OU - 1
E1.2	LPNU and AUTH- leading, participants: all partners	Project management group meeting Travel connected with 4.5	meeting	Project management group meeting	Thessaloniki, Greece	2	all partners - 2
E1.3	LPNU and UM- leading, participants: all partners	Project management group meeting. Travel connected with 4.4	meeting	Project management group meeting	Maribor , Slovenia	2	all partners - 2

E1.4	LPNU and NUWEE - leading, participants: all partners	Project management group meeting travel connected to 4.3 and 5.1	meeting	Project management group meeting	Budapest, Hungary	2	all partners - 2
E1.5	LPNU and UPSC- leading, participants: all partners	Project management group meeting. Travel connected with 1.9	meeting	Project management group meeting	Chisinau, Moldova	2	LPNU, UPSC - 2 WUT, UM, AUTH, NUBIP, VNAU, NUWEE, TUM, OU - 1
E1.6	LPNU	Monitoring visit to NUWEE	visit	On-site inspection of activities implemented and facilities established	Rivne, Ukraine	1	LPNU - 1
E1.7	LPNU	Monitoring visit to NUBIP	visit	On-site inspection of activities implemented and facilities established	Kyiv, Ukraine	1	LPNU - 1
E1.8	LPNU	Monitoring visit to VNAU	visit	On-site inspection of activities implemented and facilities established	Vinnytsia, Ukraine	1	LPNU - 1
E1.9	LPNU	Monitoring visit to TUM and UPSC travel connected with 1.5	visit	On-site inspection of activities implemented and facilities established	Chisinau, Moldova	1	LPNU - 2
E1.10	LPNU - leading, participants: all partners	Final evaluation meeting travel connected with 6.1	meeting	Reporting, discussion and decision making about results of project implementation	Lviv, Ukraine	1	LPNU, UPSC - 2 WUT, UM, AUTH, NUBIP, VNAU, NUWEE, TUM, OU - 1
E2.1	TUM - leading, participants: all partners	“Peculiarities of modern precise agriculture curricula”	workshop	Discussion and decision making about best and innovative modules in precise agriculture curriculum	Chisinau, Moldova	2	all partners - 2
E 4.1	NUBIP - leading, participants: all partners	Joint workshop Joint workshop ‘Modern obligatory skills and knowledge in geomatics and precise agriculture”	workshop	Discussion focused on advancing geomatic technologies for precise agriculture and related education	online	1	all partners - 3
E 4.2	WUT- leading, participants: LPNU, NUBIP, VNAU, NUWEE, TUM, UPSC	Aerial and satellite solutions in Remote Sensing for GIS supporting landscape and agriculture	training	Intensive course for teacher staff of Ukrainian and Moldovan partner universities	Warsaw, Poland	7	LPNU, NUBIP, VNAU, NUWEE, TUM, UPSC - 2
E 4.3	NUWEE - leading, participants: LPNU, NUBIP, VNAU, NUWEE, TUM, UPSC	Intensive courses: “Basic knowledge of precision farming.” travel connected with 5.1	training	Intensive course for teacher staff of Ukrainian and Moldovan partner universities	Budapest, Hungary	7	LPNU, NUBIP, VNAU, NUWEE, TUM, UPSC - 2
E 4.4	UM- leading, participants: LPNU, NUBIP, VNAU, NUWEE, TUM, UPSC	Intensive courses: "Innovative Pedagogy in Precision Agriculture" travel connected with 1.3	training	Intensive course for teacher staff of Ukrainian and Moldovan partner universities	Maribor Slovenia	7	LPNU, NUBIP, VNAU, NUWEE, TUM, UPSC - 2
E 4.5	AUTH- leading, participants: LPNU, NUBIP, VNAU, NUWEE, TUM, UPSC	Intensive courses: “Spatial analysis of the data for precision agriculture” travel connected with 1.2	training	Intensive course for teacher staff of Ukrainian and Moldovan partner universities	Thessaloniki, Greece	7	LPNU, NUBIP, VNAU, NUWEE, TUM, UPSC - 2
E 4.6	WUT - leading, participants: all partners	Development of structure, content and time-table for short-term	Workshop-meeting	Discussion and decision making about Development of structure, content and	Warsaw, Poland	2	all partners - 2

		retraining courses		time-table for short-term retraining courses			
E 4.7	AUTH- leading, participants: LPNU, NUBIP, VNAU, NUWEE, TUM, UPSC	Geospatial Data Analysis and Spatial Interpolation Techniques	Season school for students	Student training. Will be considered as informal education for their Universities	Thessaloniki, Greece	7	LPNU, NUBIP, VNAU, NUWEE-2, TUM, UPSC - 1
E 4.8	UM - leading, participants: LPNU, NUBIP, VNAU, NUWEE, TUM, UPSC	Future Farmers: Exploring the World of Precision Agriculture and ICT	Season school for students	Student training. Will be considered as informal education for their Universities	Slovenia	7	LPNU, NUBIP, VNAU, NUWEE-2, TUM, UPSC - 1
E4.9-4.14	All Ukrainian and Moldovan universities	Short term retraining courses	retraining	Retraining courses for local target groups	local places	5	10
E4.15	VNAU - leading, participants: all partner	Guest lecturing of innovating technologies in precision agriculture.	training	8 Lectures for students by Professors from EU and stakeholders of leading agricultural business from Ukraine and Moldova	on-line	10	min 15 students per each lecture
E5.1	LPNU - leading, participants: all partners	LM development strategy travel connected with 4.3	workshop	Discussion and decision making of structure and content of learning materials and environment.	Budapest, Hungary	1	all partners - 2
E 5.2	NUWEE - leading, participants: all partners	Joint workshop on innovative teaching methods	workshop	Discussion on innovative methods and their use for education in precision agriculture	online	1	all partners - 3
E6.1	LPNU - leading, participants: all partners	Final dissemination conference travel connected with 1.10	Dissemination event	Final conference sums up project activity, outcomes and sustainability	Lviv, Ukraine	3	LPNU - 10 WUT, UM, AUTH, OU, NUBIP, VNAU, NUWEE -2, TUM, UPSC - 1

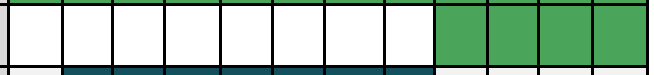
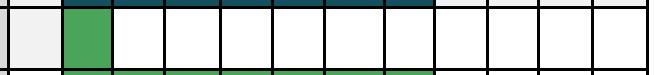
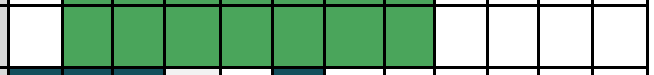
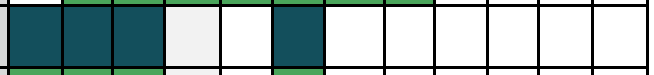
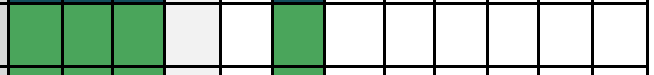
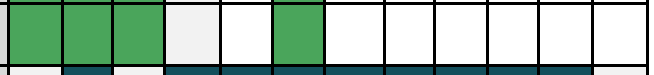
Timetable

Timetable (projects of more than 2 years)

Fill in cells in beige to show the duration of activities. Repeat lines/columns as necessary.

Note: *Use actual calendar years and quarters. In the timeline you should indicate the timing of each activity per WP.*

ACTIVITY	2026				2027				2028			
	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4
WP 1. Project Management and Quality control												
T.1.1 - Kick-off meeting												

T.1.2. *Day-to-day management of the project*	
T.1.3. *Annual meetings of the project management group*	
T.1.4. *Quality assurance*	
T.1.5 - External evaluation	
WP 2. Creation and Modernization of Innovative Geomatic Modules for Precision Agriculture Curricula	
T.2.1. Analysis and comparison of Ukrainian, Moldovan and European curricula	
T.2.2. Creation and modernization of geomatics modules	
T.2.3. Modernization of curricula	
WP 3. Enhancement of Geomatics infrastructure in precise agriculture	
T.3.1. Development of precise agriculture and geomatics laboratories	
T.3.2. Enhancement of existing precise agriculture and geomatics laboratories	
WP 4. Human Resource Development: Education & Training	
T.4.1. Development and implementation of intensive courses for teachers	
T.4.2. Development and Conducting of short-term retraining courses for local target groups	
T.4.3.Development and Implementation of student seasonal schools in European universities	
T.4.4. Guest lecturing of innovating technologies in precision agriculture	
WP 5. Open access learning environment and learning materials	
T.5.1. Development of open access learning environment and its long life usability	
T.5.2. Development of learning materials	

T.5.3. Integration of materials into local languages												
T 5.4 Joint workshop on innovative teaching methods												
WP 6. Dissemination and Exploitation												
T.6.1. Dissemination and marketing of project outcomes												
T.6.2. Organization of the Labour Market Day in the field of precision agriculture in Ukraine and Moldova												
T.6.3. Actions to enhance the project's sustainability												
T.6.4. Final dissemination conference												

#§WRK-PLA-WP§#

#@ETH-ICS-EI@#

5. OTHER

5.1 Ethics

Ethics (if applicable) *If the Call document/Programme Guide contains a section on ethics, describe ethics issues that may arise during the project implementation and the measures you intend to take to solve/avoid them.* *Describe how you will ensure gender mainstreaming and children's rights in the project activities.*
The AGROPATH project will uphold the highest ethical standards, ensuring respect for participants' rights, dignity, and privacy. It will strictly prohibit discrimination based on sex, race, ethnicity, religion, disability, or other protected characteristics, in line with EU values and Article 2 of the Treaty on the European Union. While personal data collection will be minimal, any necessary data gathering for evaluations or feedback will fully comply with GDPR and data protection laws. The project actively promotes gender equality by ensuring equal access to training and education, with special efforts to support women in overcoming barriers to agricultural education and technology. It also prioritizes the inclusion of vulnerable groups, such as internally displaced persons, veterans, and rural communities, by tailoring training programs to their needs. Appropriate measures will ensure the safety and informed consent of students, including minors, in line with legal requirements. By adhering to these ethical principles, AGROPATH will foster a fair, inclusive, and empowering educational environment for all participants.

#§ETH-ICS-EI§# #@SEC-URI-SU@#

5.2 Security

Security
Not applicable.

#§SEC-URI-SU§# #@DEC-LAR-DL@#

6. DECLARATIONS

Double funding	
Information concerning other EU grants for this project ⚠ *Please note that there is a strict prohibition of double funding from the EU budget (except under EU Synergies actions).*	**YES/NO**
We confirm that to our best knowledge neither the project as a whole nor any parts of it have benefitted from any other EU grant *(including EU funding managed by authorities in EU Member States or other funding bodies, e.g. Erasmus, EU Regional Funds, EU Agricultural Funds, etc)*. If NO, explain and provide details.	Yes
We confirm that to our best knowledge neither the project as a whole nor any parts of it are (nor will be) submitted for any other EU grant *(including EU funding managed by authorities in EU Member States or other funding bodies, e.g. Erasmus, EU Regional Funds, EU Agricultural Funds, etc)*. If NO, explain and provide details.	Yes

Financial support to third parties (if applicable) *If your project requires a higher maximum amount per third party than the threshold amount set in the Call document/Programme Guide, justify and explain why this is necessary in order to fulfil your project's objectives.*	
No	
Seal of Excellence (if applicable) *If provided in the Call document, proposals that pass the evaluation but are below the budget threshold (i.e. pass the minimum thresholds but are not ranked high enough to receive funding) will be awarded a Seal of Excellence.* *In this context we may share information about your proposal with other EU or national funding bodies through the Erasmus+ National Agencies.*	
Do you agree that your proposal (including proposal data and documentation) is shared with other EU and national funding bodies to find funding under other schemes?	YES

#§DEC-LAR-DL§#

Proposal ID	Call for Proposal	Topic	Type of Action
SEP-211129223	ERASMUS-EDU-2025-CBHE	ERASMUS-EDU-2025-CBHE-STRAND-2	ERASMUS-LS

KPIs (Key Performance Indicators)

Please fill in the data for your project. At submission and grant preparation stage, the data will be on your planned indicators ; at reporting stage it should be the real indicators achieved (since the project start). The KPI tool should be updated with the latest available data for each periodic report (the KPIs are mandatory part of the project reporting).

Erasmus+ Programme (ERASMUS) - Education (EDU)

Location

Country
Ukraine

Country
Moldova

Type of project, thematic areas and types of activities

Types of activities:

☐ EU Citizenship, EU awareness and Democracy	☐ Creativity and culture	☐ Disabilities - special needs
☐ Access for disadvantaged	☐ Social dialogue	☐ Environment and climate change
☐ Gender equality / equal opportunities	☑ New innovative curricula/educational methods/development of training courses	☐ Pedagogy and didactics
☐ Quality and Relevance of Higher Education in Partner Countries	☐ Quality Assurance	☑ Recognition (non-formal and informal learning/credits)
☐ Research and innovation	☐ Teaching and learning of foreign languages	☐ Youth (Participation, Youth Work, Youth Policy)
☑ Open and distance learning	☑ Post-conflict/post-disaster rehabilitation	☐ Entrepreneurial learning - entrepreneurship education
☐ Combat violence and tackle racism, discrimination and intolerance in sport	☐ Migrant issues	☐ Civic engagement / responsible citizenship
☐ Community development	☐ Cooperation with least developed countries	☐ Universities in more remote areas
☑ Digital and green skills	☐ Digital safety	☐ Digital youth work
☐ Early school leaving / Combating failure in education	☐ Economic and financial affairs (including funding)	☐ Encourage social inclusion and equal opportunities in sport
☐ Energy and resources	☐ Enterprise, industry, SMEs and entrepreneurship	☐ Ethics, religion and philosophy
☐ Grassroots sports	☐ Health and wellbeing	☐ Healthy lifestyle, active ageing
☐ Home and justice affairs (human rights and rule of law)	☐ ICT - new technologies - digital competencies	☐ Inclusion - equality
☐ Intercultural/intergenerational education and (lifelong) learning	☐ International cooperation, international relations, development cooperation	☐ Interreligious dialogue
☐ Key competencies (including mathematics and literacy) - basic skills	☐ Labour market issues (including career guidance and youth unemployment)	☐ Mobility - Exchanges
☐ Natural sciences	☐ Overcoming skills mismatches (basic/transversal)	☐ Preventing radicalisation
☐ Quality and innovation of youth work	☐ Quality improvement of institutions or	☐ Reaching the policy level/dialogue

	methods (including school development)	with decision-makers
☐ Recognition, transparency and certification	☐ Regional dimension and cooperation - territorial cooperation and cohesion	☐ Roma and/or other minorities
☐ Rural development and urbanisation	☐ Skills matching	☐ Soft skills
☐ Sustainable financing in sports, dual careers involving sports, good governance	☐ Transport and mobility	☐ VET teachers/trainers professional development
☐ Work-based learning	☐ Youth entrepreneurship	☐ Youth participation and active citizenship

Education levels:

☑ Higher education	☐ Youth	☐ School education
☑ Adult education	☐ Vocational training	

EQF levels:

☐ Short cycle within the first cycle / Short-cycle tertiary education (ISCED-5)	☐ First cycle / Bachelor's or equivalent level (ISCED-6)	☐ Second cycle / Master's or equivalent level (ISCED-7)
☐ Third cycle / Doctoral or equivalent level (ISCED-8)	☐ Upper secondary education (ISCED-3)	☐ Post-secondary non-tertiary education (ISCED-4)

Academic fields:

☐ Sustainable Development Goals	☐ Climate change	☑ Green transformation
☐ Blue economy	☐ Maritime and coastal management	☑ Digital transformation
☐ Artificial intelligence	☐ Robotic	☐ Big data
☐ Internet of Things	☐ Creative industries	☐ Circular economy
☐ Waste management	☐ Arts	☐ Architecture
☐ Urbanism	☐ Culture	☐ Cultural heritage
☐ Web 4.0 industry	☑ Science, technology, engineering, and mathematics (STEM)	☐ Health
☐ Bio technology	☐ Social sciences	☐ Active citizenship
☐ Social inclusion	☐ Migration	☐ Humanities
☐ Law	☐ European Studies	☐ Public administration
☑ Agriculture	☐ Business - Marketing	☐ Economy
☐ Finance	☐ Other(s)	

Pedagogies:

☐ Pedagogies	☐ Pedagogy(ies) in your alliance	☑ Student centered learning
☐ Challenge based learning	☐ Research based education	☐ Enterpreneurship education
☐ Micro-credential courses	☐ Blended learning	☑ Multi-disciplinary or cross-disciplinary education
☐ Collaborative learning	☐ Other(s)	

Target groups:

☑ Students	☐ Researchers	☑ Academic staff
☐ Administrative Staff	☐ Other(s)	☑ Staff of enterprises

Sectors (only for ALLIANCES FOR INNOVATION actions):

☐ Tourism
☐ Construction
☐ Textile
☐ Renewable Energy
☐ Proximity & Social Economy
☐ Mobility-Transport-Automotive
☐ Agri-food
☐ Creative & Cultural Industries
☐ Electronics
☐ Health
☐ Aerospace & Defence
☐ Low-carbon energy Intensive Industries
☐ Digital
☐ Retail

Mobility activities:

◉ Yes
○ No

Type of mobility:

☐ Other(s)
☑ Mixed mobility
☐ Physical mobility
☐ Virtual mobility

Number of persons involved in mobility/virtual exchanges:

44

Does the project contribute to any of the EU Commission political priorities?

☐ A European Green Deal - Climate change
☑ A European Green Deal - Sustainable Europe investment plan
☐ A Europe fit for the digital age - The digital age
☐ An economy that works for people - Social fairness and prosperity
☐ An economy that works for people - Europe's social pillar
☐ An economy that works for people - Fair taxation
☐ A stronger Europe in the world - Free and fair trade
☐ A stronger Europe in the world - Defending Europe
☐ Promoting our European way of life - Strong borders and a fresh start on migration
☐ A new push for European democracy - Our democracy
☐ A new push for European democracy - Special relationship with the European Parliament
☐ A new push for European democracy - More transparency and scrutiny
☐ An economy that works for people - Deepening our economic and monetary union
☐ A European Green Deal - A just transition
☐ A European Green Deal - Preserving Europe's natural environment
☑ A Europe fit for the digital age - Empowering people through education and skills
☐ An economy that works for people - Supporting small business
☐ An economy that works for people - A union of equality
☐ A stronger Europe in the world - The EU unique brand of responsible global leadership
☐ A stronger Europe in the world - A more active role
☐ Promoting our European way of life - Upholding the rule of law
☐ Promoting our European way of life - Internal security
☐ A new push for European democracy - A greater say for Europeans
☐ A new push for European democracy - Improving the lead candidate system
☐ A new push for European democracy - Protecting our democracy

Does the project address inclusion and diversity?

◉ Yes
○ No

Does the project address participation and civic engagement?

○ Yes
◉ No

Type of project participants

Types of third country participants (only for VIRTUAL EXCHANGES actions) :

Number of third country social partners involved in the project

Number of third country youth organisations involved in the project

Number of third country sport organisations involved in the project

0	0	0

Is the project focused on regional cooperation i.e. cooperation between countries in a region of the world (only for CB-VET and CB-HE actions)?

◉ Yes ○ No

Output, result and impact indicators

Policy impact

Impact on the higher education (HE) sector:

☐ Active participation of students in governance and reform of HE system	☑ Contribution to creation of regional HE area (facilitate national and cross-border recognition, support mobility of teachers, learners and workers)	☑ Contribution to the reform of higher education policies that respond to societal and labour market needs
☐ Development of schemes that facilitate the employability of graduates	☐ New national policies or legislative framework	☐ New regional policies or legislative framework
☐ Project not related to higher education sector	☑ Strengthening of links between education, research and innovation	

Cooperation agreements with stakeholders:

☑ Education institutions not involved in the project	☐ Associations, civil society organisations and NGOs	☐ Public organisations
☐ Local authorities	☑ Private sector	☐ Social enterprises
☑ Research institutions	☐ Other	

Number of third countries introducing new national policies or legislative frameworks in higher education (HE) via the project (only for CB-HE actions):

0

Number of third countries introducing new regional policies or legislative frameworks in higher education (HE) via the project (only for CB-HE actions):

0

Number of third countries creating a regional higher education (HE) area via the project (facilitating national and cross-border recognition, supporting mobility of teachers, learners and workers) (only for CB-HE actions):

2

Number of third countries reforming higher education (HE) policies via the project, to respond to societal and labour market needs (only for CB-HE actions):

0

Do you consider that the project has improved the awareness and the perception of the EU's support in the areas addressed by Erasmus+ in (one or more) third countries (only for VIRTUAL EXCHANGES and NEO actions and only at reporting)?

○ Yes ◉ No

Socio-economic benefits

Do you consider that your organisations/institutions have developed high-quality practices as a result of the participation in this

project (only at reporting)?

○ Yes
○ No

Courses and study programmes

Number of new courses:	Number of new study programmes:	Number of updated courses:
9	0	10

Number of updated study programmes:	Number of study programmes with practical placements:
3	0

Training, meetings, workshops, etc

Number of training sessions organised (only for POLICY NETWORKS actions):	Number of knowledge-sharing events/seminars organised (only for POLICY NETWORKS actions):
0	0

Number of meetings organised with stakeholders (only for POLICY NETWORKS actions):	Number of meetings organised with national authorities (only for POLICY NETWORKS actions):
0	0

Number of meetings organised with students (only for POLICY NETWORKS actions):	Number of meetings organised with schools (only for POLICY NETWORKS actions):
0	0

Number of meetings organised with adult education bodies (only for POLICY NETWORKS actions):

0

Structures and infrastructure

Number of new or modernised structures/units/centres/hubs:	Number of new or modernised labs:
0	6

Number of new services/facilities created (only for CB-VET actions):	Number of new or modernised international offices created (only for CB-HE actions):
	0

Persons reached

Number of persons reached:

Male	Female	Non-binary
30	30	0

Total persons reached:
60

Persons with fewer opportunities addressed by the project

Number of people with disabilities	Number of people with health problems	Number of people who face barriers linked to cultural differences
100	100	0
Number of people who face barriers linked to education and training systems	**Number of people who are facing social barriers**	**Number of people addressed by the project who are facing economic barriers**
5000	100	0
Number of people who are facing barriers linked to discrimination	**Number of people who are facing geographical barriers**	
0	0	

Total number of persons with fewer opportunities addressed by the project
5300

Students/university staff reached:

Number of students/university staff reached	Number of students following the courses/study programme (at Bachelor, Master, PhD level) (only for CB-HE actions)
100	0
Number of students/staff with practical placements (only for CB-HE actions)	**Number of researchers reached (only for EUROPEAN UNIVERSITIES actions)**
44	44
Number of academic staff trained (only for EUROPEAN UNIVERSITIES and CB-HE actions)	**Number of university administrative staff trained (only for EUROPEAN UNIVERSITIES and CB-HE actions)**
24	0

Number of people trained who are not enrolled in HEIs (only for CB-HE actions)
60

Staff from ministries and public authorities reached:

Number of staff trained from ministries and public authorities (only for CB-HE actions)
0

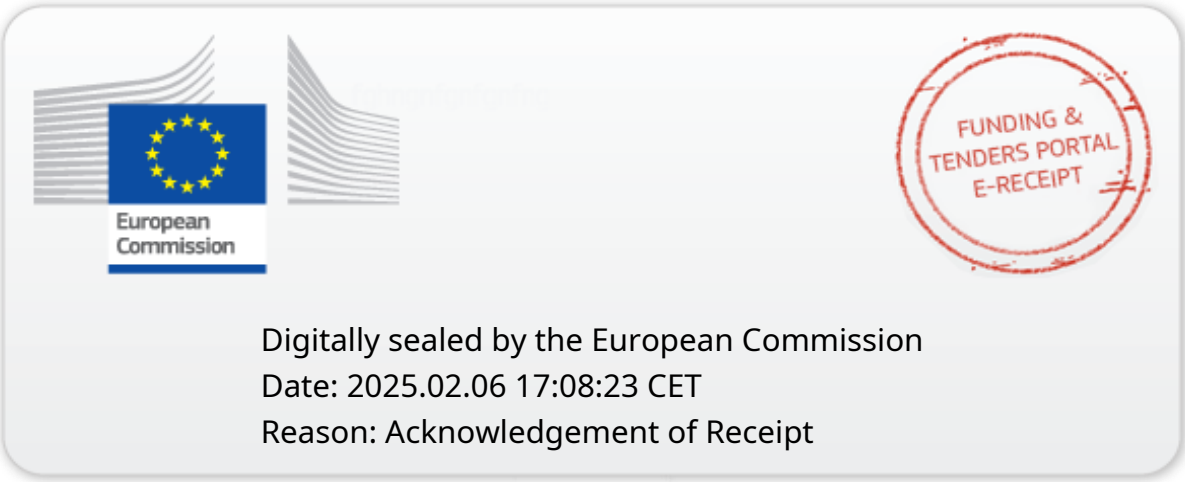
Number of students involved in mobility:

Number of students with practical placements in a partner institution (only for CB-HE actions)	Number of students with other mobility to a partner institution (only for CB-HE actions)
20	0

Number of exchanges
20

Virtual exchanges:

Number of participants involved in mobilities with a Digital Erasmus Opportunity (only for VIRTUAL EXCHANGES actions)	How many types of training (online courses) does the project offer (only for VIRTUAL EXCHANGES actions)?
Number of young participants engaged in virtual exchanges (only for VIRTUAL EXCHANGES actions)	Number of facilitators/moderators/hosts engaged in virtual exchanges (only for VIRTUAL EXCHANGES actions)
Number of university assistents/lecturers/professors engaged in virtual exchanges (only for VIRTUAL EXCHANGES actions)	



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