EUROPEAN EDUCATION AND CULTURE EXECUTIVE AGENCY (EACEA)

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

GRANT AGREEMENT

Project 101179251 — EL-BONGO

PREAMBLE

This **Agreement** ('the Agreement') is **between** the following parties:

on the one part,

the **European Education and Culture Executive Agency (EACEA)** ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and

on the other part,

1. 'the coordinator':

UNIVERSIDAD ANTONIO NARINO (UAN), PIC 998504033, established in CALLE 58 A 37 94, BOGOTA, Colombia,

and the following other beneficiaries, if they sign their 'accession form' (see Annex 3 and Article 40):

2. **Universidad Industrial de Santander (UIS)**, PIC 997938038, established in Ciudad Universitaria-carrera 27 calle 9, Bucaramanga, Colombia,

3. **UNIVERSIDAD AUTONOMA DE BUCARAMANGA (UNAB)**, PIC 924353741, established in AVENIDA 42 NRO. 48-11, CAMPUS EL JARDIN, BUCARAMANGA 680003, Colombia,

4. **ESCUELA SUPERIOR POLITECNICA DE CHIMBORAZO (ESPOCH)**, PIC 934215731, established in KM 1.5 PANAMERICANA SUR, RIOBAMBA EC060155, Ecuador,

5. **UNIVERSIDAD SAN FRANCISCO DE QUITO (USFQ)**, PIC 938699847, established in CALLE DIEGO DE ROBLES S N Y PAMPITE ESQ, QUITO 1712145, Ecuador,

6. **UNIVERSIDAD DE SALAMANCA (USAL)**, PIC 999846610, established in CALLE PATIO DE ESCUELAS 1, SALAMANCA 37008, Spain,

7. **INSTITUT NATIONAL DES SCIENCES APPLIQUEES DE LYON (INSA LYON)**, PIC 999886089, established in 20 AVENUE ALBERT EINSTEIN, VILLEURBANNE CEDEX 69621, France,

8. **UNIVERSITE PARIS CITE (UPCité)**, PIC 897691060, established in 85 BD SAINT GERMAIN, PARIS 75006, France,

9. **UNIVERSITE PAUL SABATIER TOULOUSE III (UT3)**, PIC 999851169, established in ROUTE DE NARBONNE 118, TOULOUSE CEDEX 9 31062, France,

10. **UNIVERSIDAD SAN CARLOS DE GUATEMALA (USAC)**, PIC 997466618, established in CIUDAD UNIVERSITARIA ZONA 12, GUATEMALA 010112, Guatemala,

11. **UNIVERSIDAD NACIONAL AUTONOMA DE HONDURAS (UNAH)**, PIC 952808206, established in BD SUYAPA CIUDAD UNIVERSITARIA FRANCISCO MORAZAN, TEGUCIGALPA 11101, Honduras,

12. **UNIVERSIDAD NACIONAL MAYOR DE SAN MARCOS (UNMSM)**, PIC 999453081, established in AVENIDA GERMAN AMEZAGA S/N, EDIFICIO JORGE BASADRE 4TO PISO, LIMA LIMA 1, Peru,

13. **UNIVERSIDAD DE EL SALVADOR (UES)**, PIC 924681601, established in FINAL AVENIDA MARTIRES ESTUIANTES DEL 30 DE JULIO RECTORIA 4A PLANTA, SAN SALVADOR 3110, El Salvador,

14. **UNIVERSIDAD FRANCISCO GAVIDIA (UFG)**, PIC 879241757, established in CALLE EL PROGRESO 2748 COLONIA FLOR CBLANCA, SAN SALVADOR 01101, El Salvador,

15. **UNIVERSIDAD SIMON BOLIVAR (USB)**, PIC 997939590, established in VALLE DE SARTENEJAS BARUTA ESTADO MIRANDA, CARACAS 1201, Venezuela,

16. **UNIVERSIDAD CENTRAL DE VENEZUELA (UCV)**, PIC 998697257, established in CENT COM LOS CHAGUARAMOS 6/10, CARACAS 1040, Venezuela,

Unless otherwise specified, references to ‘beneficiary’ or ‘beneficiaries’ include the coordinator and affiliated entities (if any).

If only one beneficiary signs the grant agreement (‘mono-beneficiary grant’), all provisions referring to the ‘coordinator’ or the ‘beneficiaries’ will be considered — mutatis mutandis — as referring to the beneficiary.

The parties referred to above have agreed to enter into the Agreement.

By signing the Agreement and the accession forms, the beneficiaries accept the grant and agree to implement the action under their own responsibility and in accordance with the Agreement, with all the obligations and terms and conditions it sets out.

The Agreement is composed of:

Preamble

Terms and Conditions (including Data Sheet)

[1] Template published on Portal Reference Documents.
[2] Template published on Portal Reference Documents.
[3] Template published on Portal Reference Documents.

TERMS AND CONDITIONS

TABLE OF CONTENTS

DATA SHEET

1. General data

Project summary:

Project summary
The EL-BONGO physics project aims to revolutionize higher education in Latin America through digital transformation, emphasizing virtual research and learning communities, and open science practices. It builds upon the success of the LA-CoNGA physics program, seeking to establish a network of research communities across Central America and the Andean region, involving 18 Latin American and European universities from nine countries. The project collaborates with prominent research centers, industrial partners, and multilateral organisations. Key objectives include promoting collaboration through digital platforms, promoting digital education and open science, and developing practical skills in digital fabrication. The project also focuses on implementing a hybrid Bologna Master Program. Four Physics Research and Learning Communities will be established in High Energy Physics, Space Weather, Seismology and Earth Hazards, and Artificial Intelligence. Innovative digital learning methods, research internships, and social impact activities like hackathons will enhance educational experiences and bridge academic research with real-world problems. The project also aims to establish a collaborative Science Gateway for science and education, utilizing advanced digital infrastructure to overcome geographical and socio-economic barriers. The Digital Science Gateway Hub will provide access to educational resources, support networking and collaboration, and enhance the visibility and dissemination of research findings. The project's work plan is structured into six work packages covering preparation, development of tools, training, quality assurance, dissemination, and project management, with specific responsibilities allocated to participating institutions. Universidad Antonio Nariño, in Colombia, will lead the project along with the collaboration of Université Paris Cité as co-pi, facilitating knowledge transfer and collaboration between Europe and Latin America.

Keywords:

- Physics
- High energy physics, seismology, astroparticles, digital transformation, virtual research and learning communities Digital fabrication

Project number: 101179251

Project name: E-Latin American digital huB for OpeN Growing cOmmunities in physics (EL-BONGO physics)

Project acronym: EL-BONGO

Call: ERASMUS-EDU-2024-CBHE

Topic: ERASMUS-EDU-2024-CBHE-STRAND-2

Type of action: ERASMUS Lump Sum Grants

Granting authority: European Education and Culture Executive Agency

Grant managed through EU Funding & Tenders Portal: Yes (eGrants)

Project starting date: first day of the month following the entry into force date

Project end date: starting date + months of duration

Project duration: 36 months

Consortium agreement: Yes

2. Participants

List of participants:

N°	Role	Short name	Legal name	Ctry	PIC	Max grant amount
1	COO	UAN	UNIVERSIDAD ANTONIO NARINO	CO	998504033	108 865.70
2	BEN	UIS	Universidad Industrial de Santander	CO	997938038	73 080.00
3	BEN	UNAB	UNIVERSIDAD AUTONOMA DE BUCARAMANGA	CO	924353741	40 490.00

N°	Role	Short name	Legal name	Ctry	PIC	Max grant amount
4	BEN	ESPOCH	ESCUELA SUPERIOR POLITECNICA DE CHIMBORAZO	EC	934215731	40 458.70
5	BEN	USFQ	UNIVERSIDAD SAN FRANCISCO DE QUITO	EC	938699847	33 762.30
6	BEN	USAL	UNIVERSIDAD DE SALAMANCA	ES	999846610	32 944.00
7	BEN	INSA LYON	INSTITUT NATIONAL DES SCIENCES APPLIQUEES DE LYON	FR	999886089	16 144.00
8	BEN	UPCité	UNIVERSITE PARIS CITE	FR	897691060	42 824.00
9	BEN	UT3	UNIVERSITE PAUL SABATIER TOULOUSE III	FR	999851169	21 744.00
10	BEN	USAC	UNIVERSIDAD SAN CARLOS DE GUATEMALA	GT	997466618	46 642.30
11	BEN	UNAH	UNIVERSIDAD NACIONAL AUTONOMA DE HONDURAS	HN	952808206	43 113.30
12	BEN	UNMSM	UNIVERSIDAD NACIONAL MAYOR DE SAN MARCOS	PE	999453081	58 303.10
13	BEN	UES	UNIVERSIDAD DE EL SALVADOR	SV	924681601	46 642.30
14	BEN	UFG	UNIVERSIDAD FRANCISCO GAVIDIA	SV	879241757	40 953.30
15	BEN	USB	UNIVERSIDAD SIMON BOLIVAR	VE	997939590	31 303.00
16	BEN	UCV	UNIVERSIDAD CENTRAL DE VENEZUELA	VE	998697257	39 152.00
17	AP (IO)	CERN	ORGANISATION EUROPEENNE POUR LA RECHERCHE NUCLEAIRE	CH	999988133	0.00
18	AP	CNRS	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE CNRS	FR	999997930	0.00
19	AP	ICTP	The Abdus Salam International Centre for Theoretical Physics	IT	876279280	0.00
20	AP	CIEMAT	CENTRO DE INVESTIGACIONES ENERGETICAS MEDIOAMBIENTALES Y TECNOLOGICAS	ES	999614877	0.00
21	AP	RedCLARA	COOPERACION LATINOAMERICANA DE REDES AVANZADAS	UY	999646208	0.00
22	AP	CEDIA	Corporación Ecuatoriana para el Desarrollo de la investigación y la Academia	EC	995818006	0.00
23	AP	frontier x	frontier x	CO	906607882	0.00
Total						716 422.00

Coordinator:

- UNIVERSIDAD ANTONIO NARINO (UAN)

3. Grant

Maximum grant amount, total estimated eligible costs and contributions and funding rate:

Maximum grant amount (Annex 2)	Maximum grant amount (award decision)
716 422.00	716 422.00

Grant form: Lump Sum

Grant mode: Action grant

Budget categories/activity types: Lump sum contributions

Cost eligibility options: n/a

Budget flexibility: No

4. Reporting, payments and recoveries

4.1 Continuous reporting (art 21)

Deliverables: see Funding & Tenders Portal Continuous Reporting tool

4.2 Periodic reporting and payments

Reporting and payment schedule (art 21, 22):

Reporting					Payments	
Reporting periods			Type	Deadline	Type	Deadline (time to pay)
RP No	Month from	Month to				
					Initial prefinancing	30 days from entry into force/ financial guarantee (if required) – whichever is the latest
1	1	36	Periodic report	60 days after end of reporting period	Final payment	90 days from receiving periodic report

Prefinancing payments and guarantees:

Prefinancing payment		Prefinancing guarantee		
Type	Amount	Guarantee amount	Division per participant	
Prefinancing 1 (initial)	501 495.40	n/a	1 - UAN	n/a
			2 - UIS	n/a
			3 - UNAB	n/a
			4 - ESPOCH	n/a
			5 - USFQ	n/a
			6 - USAL	n/a
			7 - INSA LYON	n/a
			8 - UPCité	n/a
			9 - UT3	n/a
			10 - USAC	n/a
			11 - UNAH	n/a
			12 - UNMSM	n/a
			13 - UES	n/a
			14 - UFG	n/a
			15 - USB	n/a
			16 - UCV	n/a

Reporting and payment modalities (art 21, 22):

Mutual Insurance Mechanism (MIM): No

Restrictions on distribution of initial prefinancing: The prefinancing may be distributed only if the minimum number of beneficiaries set out in the call condititions (if any) have acceded to the Agreement and only to beneficiaries that have acceded.

Interim payment ceiling (if any): 100% of the maximum grant amount

No-profit rule: n/a

Late payment interest: ECB + 3.5%

Bank account for payments:

075750760 BBOGCOBB

Conversion into euros: n/a

Reporting language: Language of the Agreement

4.3 Certificates (art 24): n/a

4.4 Recoveries (art 22)

First-line liability for recoveries:

Beneficiary termination: Beneficiary concerned

Final payment: Coordinator

After final payment: Beneficiary concerned

Joint and several liability for enforced recoveries (in case of non-payment):

Limited joint and several liability of other beneficiaries — up to the maximum grant amount of the beneficiary

Joint and several liability of affiliated entities — n/a

5. Consequences of non-compliance, applicable law & dispute settlement forum

Applicable law (art 43):

Standard applicable law regime: EU law + law of Belgium

Dispute settlement forum (art 43):

Standard dispute settlement forum:

EU beneficiaries: EU General Court + EU Court of Justice (on appeal)

Non-EU beneficiaries: Courts of Brussels, Belgium (unless an international agreement provides for the enforceability of EU court judgements)

6. Other

Specific rules (Annex 5): Yes

Standard time-limits after project end:

Confidentiality (for X years after final payment): 5

Record-keeping (for X years after final payment): 5 (or 3 for grants of not more than EUR 60 000)

Reviews (up to X years after final payment): 5 (or 3 for grants of not more than EUR 60 000)

Audits (up to X years after final payment): 5 (or 3 for grants of not more than EUR 60 000)

Extension of findings from other grants to this grant (no later than X years after final payment): 5 (or 3 for grants of not more than EUR 60 000)

Impact evaluation (up to X years after final payment): 5 (or 3 for grants of not more than EUR 60 000)

CHAPTER 1 GENERAL

ARTICLE 1 — SUBJECT OF THE AGREEMENT

This Agreement sets out the rights and obligations and terms and conditions applicable to the grant awarded for the implementation of the action set out in Chapter 2.

ARTICLE 2 — DEFINITIONS

For the purpose of this Agreement, the following definitions apply:

Actions — The project which is being funded in the context of this Agreement.

Grant — The grant awarded in the context of this Agreement.

EU grants — Grants awarded by EU institutions, bodies, offices or agencies (including EU executive agencies, EU regulatory agencies, EDA, joint undertakings, etc.).

Participants — Entities participating in the action as beneficiaries, affiliated entities, associated partners, third parties giving in-kind contributions, subcontractors or recipients of financial support to third parties.

Beneficiaries (BEN) — The signatories of this Agreement (either directly or through an accession form).

Affiliated entities (AE) — Entities affiliated to a beneficiary within the meaning of Article 187 of EU Financial Regulation 2018/1046[4] which participate in the action with similar rights and obligations as the beneficiaries (obligation to implement action tasks and right to charge costs and claim contributions).

Associated partners (AP) — Entities which participate in the action, but without the right to charge costs or claim contributions.

Purchases — Contracts for goods, works or services needed to carry out the action (e.g. equipment, consumables and supplies) but which are not part of the action tasks (see Annex 1).

Subcontracting — Contracts for goods, works or services that are part of the action tasks (see Annex 1).

In-kind contributions — In-kind contributions within the meaning of Article 2(36) of EU Financial

[4] For the definition, see Article 187 Regulation (EU, Euratom) 2018/1046 of the European Parliament and of the Council of 18 July 2018 on the financial rules applicable to the general budget of the Union, amending Regulations (EU) No 1296/2013, (EU) No 1301/2013, (EU) No 1303/2013, (EU) No 1304/2013, (EU) No 1309/2013, (EU) No 1316/2013, (EU) No 223/2014, (EU) No 283/2014, and Decision No 541/2014/EU and repealing Regulation (EU, Euratom) No 966/2012 ('EU Financial Regulation') (OJ L 193, 30.7.2018, p. 1): "**affiliated entities** [are]:
(a) entities that form a sole beneficiary [(i.e. where an entity is formed of several entities that satisfy the criteria for being awarded a grant, including where the entity is specifically established for the purpose of implementing an action to be financed by a grant)];
(b) entities that satisfy the eligibility criteria and that do not fall within one of the situations referred to in Article 136(1) and 141(1) and that have a link with the beneficiary, in particular a legal or capital link, which is neither limited to the action nor established for the sole purpose of its implementation".

Regulation 2018/1046, i.e. non-financial resources made available free of charge by third parties.

Fraud — Fraud within the meaning of Article 3 of EU Directive 2017/1371[5] and Article 1 of the Convention on the protection of the European Communities' financial interests, drawn up by the Council Act of 26 July 1995[6], as well as any other wrongful or criminal deception intended to result in financial or personal gain.

Irregularities — Any type of breach (regulatory or contractual) which could impact the EU financial interests, including irregularities within the meaning of Article 1(2) of EU Regulation 2988/95[7].

Grave professional misconduct — Any type of unacceptable or improper behaviour in exercising one's profession, especially by employees, including grave professional misconduct within the meaning of Article 136(1)(c) of EU Financial Regulation 2018/1046.

Applicable EU, international and national law — Any legal acts or other (binding or non-binding) rules and guidance in the area concerned.

Portal — EU Funding & Tenders Portal; electronic portal and exchange system managed by the European Commission and used by itself and other EU institutions, bodies, offices or agencies for the management of their funding programmes (grants, procurements, prizes, etc.).

CHAPTER 2 ACTION

ARTICLE 3 — ACTION

The grant is awarded for the action **101179251 — EL-BONGO** ('action'), as described in Annex 1.

ARTICLE 4 — DURATION AND STARTING DATE

The duration and the starting date of the action are set out in the Data Sheet (see Point 1).

CHAPTER 3 GRANT

ARTICLE 5 — GRANT

5.1 Form of grant

[5] Directive (EU) 2017/1371 of the European Parliament and of the Council of 5 July 2017 on the fight against fraud to the Union's financial interests by means of criminal law (OJ L 198, 28.7.2017, p. 29).
[6] OJ C 316, 27.11.1995, p. 48.
[7] Council Regulation (EC, Euratom) No 2988/95 of 18 December 1995 on the protection of the European Communities financial interests (OJ L 312, 23.12.1995, p. 1).

The grant is an action grant[8] which takes the form of a lump sum grant for the completion of work packages.

5.2 Maximum grant amount

The maximum grant amount is set out in the Data Sheet (see Point 3) and in the estimated budget (Annex 2).

5.3 Funding rate

Not applicable

5.4 Estimated budget, budget categories and forms of funding

The estimated budget for the action (lump sum breakdown) is set out in Annex 2.

It contains the estimated eligible contributions for the action (lump sum contributions), broken down by participant and work package.

Annex 2 also shows the types of contributions (forms of funding)[9] to be used for each work package.

5.5 Budget flexibility

Budget flexibility does not apply; changes to the estimated budget (lump sum breakdown) always require an amendment (see Article 39).

Amendments for transfers between *work packages* are moreover possible only if:

- the work packages concerned are not already completed (and declared in a financial statement) and
- the transfers are justified by the technical implementation of the action.

ARTICLE 6 — ELIGIBLE AND INELIGIBLE CONTRIBUTIONS

6.1 and 6.2 General and specific eligibility conditions

Lump sum contributions are eligible ('eligible contributions'), if:

(a) they are set out in Annex 2 and

(b) the work packages are completed and the work is properly implemented by the beneficiaries and/or the results are achieved, in accordance with Annex 1 and during in the period set out in Article 4 (with the exception of work/results relating to the submission of the final periodic report, which may be achieved afterwards; see Article 21)

They will be calculated on the basis of the amounts set out in Annex 2.

[8] For the definition, see Article 180(2)(a) EU Financial Regulation 2018/1046: '**action grant**' means an EU grant to finance "an action intended to help achieve a Union policy objective".
[9] See Article 125 EU Financial Regulation 2018/1046.

6.3 Ineligible contributions

'Ineligible contributions' are:

(a) lump sum contributions that do not comply with the conditions set out above (see Article 6.1 and 6.2)

(b) lump sum contributions for activities already funded under other EU grants (or grants awarded by an EU Member State, non-EU country or other body implementing the EU budget), except for the following case:

(i) Synergy actions: not applicable

(c) other:

(i) country restrictions for eligible costs: not applicable.

6.4 Consequences of non-compliance

If a beneficiary declares lump sum contributions that are ineligible, they will be rejected (see Article 27).

This may also lead to other measures described in Chapter 5.

CHAPTER 4 GRANT IMPLEMENTATION

SECTION 1 CONSORTIUM: BENEFICIARIES, AFFILIATED ENTITIES AND OTHER PARTICIPANTS

ARTICLE 7 — BENEFICIARIES

The beneficiaries, as signatories of the Agreement, are fully responsible towards the granting authority for implementing it and for complying with all its obligations.

They must implement the Agreement to their best abilities, in good faith and in accordance with all the obligations and terms and conditions it sets out.

They must have the appropriate resources to implement the action and implement the action under their own responsibility and in accordance with Article 11. If they rely on affiliated entities or other participants (see Articles 8 and 9), they retain sole responsibility towards the granting authority and the other beneficiaries.

They are jointly responsible for the *technical* implementation of the action. If one of the beneficiaries fails to implement their part of the action, the other beneficiaries must ensure that this part is implemented by someone else (without being entitled to an increase of the maximum grant amount and subject to an amendment; see Article 39). The *financial* responsibility of each beneficiary in case of recoveries is governed by Article 22.

The beneficiaries (and their action) must remain eligible under the EU programme funding the grant

for the entire duration of the action. Lump sum contributions will be eligible only as long as the beneficiary and the action are eligible.

The **internal roles and responsibilities** of the beneficiaries are divided as follows:

(a) Each beneficiary must:

(i) keep information stored in the Portal Participant Register up to date (see Article 19)

(ii) inform the granting authority (and the other beneficiaries) immediately of any events or circumstances likely to affect significantly or delay the implementation of the action (see Article 19)

(iii) submit to the coordinator in good time:

- the prefinancing guarantees (if required; see Article 23)
- the financial statements and certificates on the financial statements (CFS): not applicable
- the contribution to the deliverables and technical reports (see Article 21)
- any other documents or information required by the granting authority under the Agreement

(iv) submit via the Portal data and information related to the participation of their affiliated entities.

(b) The coordinator must:

(i) monitor that the action is implemented properly (see Article 11)

(ii) act as the intermediary for all communications between the consortium and the granting authority, unless the Agreement or granting authority specifies otherwise, and in particular:

- submit the prefinancing guarantees to the granting authority (if any)
- request and review any documents or information required and verify their quality and completeness before passing them on to the granting authority
- submit the deliverables and reports to the granting authority
- inform the granting authority about the payments made to the other beneficiaries (report on the distribution of payments; if required, see Articles 22 and 32)

(iii) distribute the payments received from the granting authority to the other beneficiaries without unjustified delay (see Article 22).

The coordinator may not delegate or subcontract the above-mentioned tasks to any other beneficiary or third party (including affiliated entities).

However, coordinators which are public bodies may delegate the tasks set out in Point (b)(ii) last

indent and (iii) above to entities with 'authorisation to administer' which they have created or which are controlled by or affiliated to them. In this case, the coordinator retains sole responsibility for the payments and for compliance with the obligations under the Agreement.

Moreover, coordinators which are 'sole beneficiaries'[10] (or similar, such as European research infrastructure consortia (ERICs)) may delegate the tasks set out in Point (b)(i) to (iii) above to one of their members. The coordinator retains sole responsibility for compliance with the obligations under the Agreement.

The beneficiaries must have **internal arrangements** regarding their operation and co-ordination, to ensure that the action is implemented properly.

If required by the granting authority (see Data Sheet, Point 1), these arrangements must be set out in a written **consortium agreement** between the beneficiaries, covering for instance:

- the internal organisation of the consortium
- the management of access to the Portal
- different distribution keys for the payments and financial responsibilities in case of recoveries (if any)
- additional rules on rights and obligations related to background and results (see Article 16)
- settlement of internal disputes
- liability, indemnification and confidentiality arrangements between the beneficiaries.

The internal arrangements must not contain any provision contrary to this Agreement.

ARTICLE 8 — AFFILIATED ENTITIES

Not applicable

ARTICLE 9 — OTHER PARTICIPANTS INVOLVED IN THE ACTION

9.1 Associated partners

The following entities which cooperate with a beneficiary will participate in the action as 'associated partners':

- **ORGANISATION EUROPEENNE POUR LA RECHERCHE NUCLEAIRE (CERN)**, PIC 999988133
- **CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE CNRS (CNRS)**, PIC 999997930
- **The Abdus Salam International Centre for Theoretical Physics (ICTP)**, PIC 876279280

[10] For the definition, see Article 187(2) EU Financial Regulation 2018/1046: "Where several entities satisfy the criteria for being awarded a grant and together form one entity, that entity may be treated as the **sole beneficiary**, including where it is specifically established for the purpose of implementing the action financed by the grant."

- **CENTRO DE INVESTIGACIONES ENERGETICAS MEDIOAMBIENTALES Y TECNOLOGICAS (CIEMAT)**, PIC 999614877
- **COOPERACION LATINOAMERICANA DE REDES AVANZADAS (RedCLARA)**, PIC 999646208
- **Corporación Ecuatoriana para el Desarrollo de la investigación y la Academia (CEDIA)**, PIC 995818006
- **frontier x (frontier x)**, PIC 906607882

Associated partners must implement the action tasks attributed to them in Annex 1 in accordance with Article 11. They may not charge contributions to the action (no lump sum contributions) and the costs for their tasks are not eligible (may not be included in the estimated budget in Annex 2).

The tasks must be set out in Annex 1.

The beneficiaries must ensure that their contractual obligations under Articles 11 (proper implementation), 12 (conflict of interests), 13 (confidentiality and security), 14 (ethics), 17.2 (visibility), 18 (specific rules for carrying out action), 19 (information) and 20 (record-keeping) also apply to the associated partners.

The beneficiaries must ensure that the bodies mentioned in Article 25 (e.g. granting authority, OLAF, Court of Auditors (ECA), etc.) can exercise their rights also towards the associated partners.

9.2 Third parties giving in-kind contributions to the action

Other third parties may give in-kind contributions to the action (i.e. personnel, equipment, other goods, works and services, etc. which are free-of-charge), if necessary for the implementation.

Third parties giving in-kind contributions do not implement any action tasks. They may not charge contributions to the action (no lump sum contributions) and the costs for the in-kind contributions are not eligible (may not be included in the estimated budget in Annex 2).

The third parties and their in-kind contributions should be set out in Annex 1.

9.3 Subcontractors

Subcontractors may participate in the action, if necessary for the implementation.

Subcontractors must implement their action tasks in accordance with Article 11. The beneficiaries' costs for subcontracting are considered entirely covered by the lump sum contributions for implementing the work packages (irrespective of the actual subcontracting costs incurred, if any).

The beneficiaries must ensure that their contractual obligations under Articles 11 (proper implementation), 12 (conflict of interest), 13 (confidentiality and security), 14 (ethics), 17.2 (visibility), 18 (specific rules for carrying out action), 19 (information) and 20 (record-keeping) also apply to the subcontractors.

The beneficiaries must ensure that the bodies mentioned in Article 25 (e.g. granting authority, OLAF, Court of Auditors (ECA), etc.) can exercise their rights also towards the subcontractors.

9.4 Recipients of financial support to third parties

If the action includes providing financial support to third parties (e.g. grants, prizes or similar forms of support), the beneficiaries must ensure that their contractual obligations under Articles 12 (conflict of interest), 13 (confidentiality and security), 14 (ethics), 17.2 (visibility), 18 (specific rules for carrying out action), 19 (information) and 20 (record-keeping)also apply to the third parties receiving the support (recipients).

The beneficiaries must also ensure that the bodies mentioned in Article 25 (e.g. granting authority, OLAF, Court of Auditors (ECA), etc.) can exercise their rights also towards the recipients.

ARTICLE 10 — PARTICIPANTS WITH SPECIAL STATUS

10.1 Non-EU participants

Participants which are established in a non-EU country (if any) undertake to comply with their obligations under the Agreement and:

- to respect general principles (including fundamental rights, values and ethical principles, environmental and labour standards, rules on classified information, intellectual property rights, visibility of funding and protection of personal data)
- for the submission of certificates under Article 24: use qualified external auditors which are independent and comply with comparable standards as those set out in EU Directive 2006/43/EC[11]
- for the controls under Article 25: allow for checks, reviews, audits and investigations (including on-the-spot checks, visits and inspections) by the bodies mentioned in that Article (e.g. granting authority, OLAF, Court of Auditors (ECA), etc.).

Special rules on dispute settlement apply (see Data Sheet, Point 5).

10.2 Participants which are international organisations

Participants which are international organisations (IOs; if any) undertake to comply with their obligations under the Agreement and:

- to respect general principles (including fundamental rights, values and ethical principles, environmental and labour standards, rules on classified information, intellectual property rights, visibility of funding and protection of personal data)
- for the submission of certificates under Article 24: to use either independent public officers or external auditors which comply with comparable standards as those set out in EU Directive 2006/43/EC
- for the controls under Article 25: to allow for the checks, reviews, audits and investigations by the bodies mentioned in that Article, taking into account the specific agreements concluded by them and the EU (if any).

[11] Directive 2006/43/EC of the European Parliament and of the Council of 17 May 2006 on statutory audits of annual accounts and consolidated accounts or similar national regulations (OJ L 157, 9.6.2006, p. 87).

For such participants, nothing in the Agreement will be interpreted as a waiver of their privileges or immunities, as accorded by their constituent documents or international law.

Special rules on applicable law and dispute settlement apply (see Article 43 and Data Sheet, Point 5).

10.3 Pillar-assessed participants

Pillar-assessed participants (if any) may rely on their own systems, rules and procedures, in so far as they have been positively assessed and do not call into question the decision awarding the grant or breach the principle of equal treatment of applicants or beneficiaries.

'Pillar-assessment' means a review by the European Commission on the systems, rules and procedures which participants use for managing EU grants (in particular internal control system, accounting system, external audits, financing of third parties, rules on recovery and exclusion, information on recipients and protection of personal data; see Article 154 EU Financial Regulation 2018/1046).

Participants with a positive pillar assessment may rely on their own systems, rules and procedures, in particular for:

- record-keeping (Article 20): may be done in accordance with internal standards, rules and procedures
- currency conversion for financial statements (Article 21): may be done in accordance with usual accounting practices
- guarantees (Article 23): for public law bodies, prefinancing guarantees are not needed
- certificates (Article 24):
    - certificates on the financial statements (CFS): may be provided by their regular internal or external auditors and in accordance with their internal financial regulations and procedures
    - certificates on usual accounting practices (CoMUC): are not needed if those practices are covered by an ex-ante assessment

and use the following specific rules, for:

- recoveries (Article 22): in case of financial support to third parties, there will be no recovery if the participant has done everything possible to retrieve the undue amounts from the third party receiving the support (including legal proceedings) and non-recovery is not due to an error or negligence on its part
- checks, reviews, audits and investigations by the EU (Article 25): will be conducted taking into account the rules and procedures specifically agreed between them and the framework agreement (if any)
- impact evaluation (Article 26): will be conducted in accordance with the participant's internal rules and procedures and the framework agreement (if any)
- grant agreement suspension (Article 31): certain costs incurred during grant suspension are eligible (notably, minimum costs necessary for a possible resumption of the action and costs

relating to contracts which were entered into before the pre-information letter was received and which could not reasonably be suspended, reallocated or terminated on legal grounds)

- grant agreement termination (Article 32): the final grant amount and final payment will be calculated taking into account also costs relating to contracts due for execution only after termination takes effect, if the contract was entered into before the pre-information letter was received and could not reasonably be terminated on legal grounds

- liability for damages (Article 33.2): the granting authority must be compensated for damage it sustains as a result of the implementation of the action or because the action was not implemented in full compliance with the Agreement only if the damage is due to an infringement of the participant's internal rules and procedures or due to a violation of third parties' rights by the participant or one of its employees or individual for whom the employees are responsible.

Participants whose pillar assessment covers procurement and granting procedures may also do purchases, subcontracting and financial support to third parties (Article 6.2) in accordance with their internal rules and procedures for purchases, subcontracting and financial support.

Participants whose pillar assessment covers data protection rules may rely on their internal standards, rules and procedures for data protection (Article 15).

The participants may however not rely on provisions which would breach the principle of equal treatment of applicants or beneficiaries or call into question the decision awarding the grant, such as in particular:

- eligibility (Article 6)

- consortium roles and set-up (Articles 7-9)

- security and ethics (Articles 13, 14)

- IPR (including background and results, access rights and rights of use), communication, dissemination and visibility (Articles 16 and 17)

- information obligation (Article 19)

- payment, reporting and amendments (Articles 21, 22 and 39)

- rejections, reductions, suspensions and terminations (Articles 27, 28, 29-32)

If the pillar assessment was subject to remedial measures, reliance on the internal systems, rules and procedures is subject to compliance with those remedial measures.

Participants whose assessment has not yet been updated to cover (the new rules on) data protection may rely on their internal systems, rules and procedures, provided that they ensure that personal data is:

- processed lawfully, fairly and in a transparent manner in relation to the data subject

- collected for specified, explicit and legitimate purposes and not further processed in a manner that is incompatible with those purposes

- adequate, relevant and limited to what is necessary in relation to the purposes for which they are processed
- accurate and, where necessary, kept up to date
- kept in a form which permits identification of data subjects for no longer than is necessary for the purposes for which the data is processed and
- processed in a manner that ensures appropriate security of the personal data.

Participants must inform the coordinator without delay of any changes to the systems, rules and procedures that were part of the pillar assessment. The coordinator must immediately inform the granting authority.

Pillar-assessed participants that have also concluded a framework agreement with the EU, may moreover — under the same conditions as those above (i.e. not call into question the decision awarding the grant or breach the principle of equal treatment of applicants or beneficiaries) — rely on provisions set out in that framework agreement.

SECTION 2 RULES FOR CARRYING OUT THE ACTION

ARTICLE 11 — PROPER IMPLEMENTATION OF THE ACTION

11.1 Obligation to properly implement the action

The beneficiaries must implement the action as described in Annex 1 and in compliance with the provisions of the Agreement, the call conditions and all legal obligations under applicable EU, international and national law.

11.2 Consequences of non-compliance

If a beneficiary breaches any of its obligations under this Article, the grant may be reduced (see Article 28).

Such breaches may also lead to other measures described in Chapter 5.

ARTICLE 12 — CONFLICT OF INTERESTS

12.1 Conflict of interests

The beneficiaries must take all measures to prevent any situation where the impartial and objective implementation of the Agreement could be compromised for reasons involving family, emotional life, political or national affinity, economic interest or any other direct or indirect interest (‘conflict of interests’).

They must formally notify the granting authority without delay of any situation constituting or likely to lead to a conflict of interests and immediately take all the necessary steps to rectify this situation.

The granting authority may verify that the measures taken are appropriate and may require additional measures to be taken by a specified deadline.

12.2 Consequences of non-compliance

If a beneficiary breaches any of its obligations under this Article, the grant may be reduced (see Article 28) and the grant or the beneficiary may be terminated (see Article 32).

Such breaches may also lead to other measures described in Chapter 5.

ARTICLE 13 — CONFIDENTIALITY AND SECURITY

13.1 Sensitive information

The parties must keep confidential any data, documents or other material (in any form) that is identified as sensitive in writing ('sensitive information') — during the implementation of the action and for at least until the time-limit set out in the Data Sheet (see Point 6).

If a beneficiary requests, the granting authority may agree to keep such information confidential for a longer period.

Unless otherwise agreed between the parties, they may use sensitive information only to implement the Agreement.

The beneficiaries may disclose sensitive information to their personnel or other participants involved in the action only if they:

(a) need to know it in order to implement the Agreement and

(b) are bound by an obligation of confidentiality.

The granting authority may disclose sensitive information to its staff and to other EU institutions and bodies.

It may moreover disclose sensitive information to third parties, if:

(a) this is necessary to implement the Agreement or safeguard the EU financial interests and

(b) the recipients of the information are bound by an obligation of confidentiality.

The confidentiality obligations no longer apply if:

(a) the disclosing party agrees to release the other party

(b) the information becomes publicly available, without breaching any confidentiality obligation

(c) the disclosure of the sensitive information is required by EU, international or national law.

Specific confidentiality rules (if any) are set out in Annex 5.

13.2 Classified information

The parties must handle classified information in accordance with the applicable EU, international or national law on classified information (in particular, Decision 2015/444[12] and its implementing rules).

Deliverables which contain classified information must be submitted according to special procedures agreed with the granting authority.

Action tasks involving classified information may be subcontracted only after explicit approval (in writing) from the granting authority.

Classified information may not be disclosed to any third party (including participants involved in the action implementation) without prior explicit written approval from the granting authority.

Specific security rules (if any) are set out in Annex 5.

13.3 Consequences of non-compliance

If a beneficiary breaches any of its obligations under this Article, the grant may be reduced (see Article 28).

Such breaches may also lead to other measures described in Chapter 5.

ARTICLE 14 — ETHICS AND VALUES

14.1 Ethics

The action must be carried out in line with the highest ethical standards and the applicable EU, international and national law on ethical principles.

Specific ethics rules (if any) are set out in Annex 5.

14.2 Values

The beneficiaries must commit to and ensure the respect of basic EU values (such as respect for human dignity, freedom, democracy, equality, the rule of law and human rights, including the rights of minorities).

Specific rules on values (if any) are set out in Annex 5.

14.3 Consequences of non-compliance

If a beneficiary breaches any of its obligations under this Article, the grant may be reduced (see Article 28).

Such breaches may also lead to other measures described in Chapter 5.

ARTICLE 15 — DATA PROTECTION

15.1 Data processing by the granting authority

[12] Commission Decision 2015/444/EC, Euratom of 13 March 2015 on the security rules for protecting EU classified information (OJ L 72, 17.3.2015, p. 53).

Any personal data under the Agreement will be processed under the responsibility of the data controller of the granting authority in accordance with and for the purposes set out in the Portal Privacy Statement.

For grants where the granting authority is the European Commission, an EU regulatory or executive agency, joint undertaking or other EU body, the processing will be subject to Regulation 2018/1725[13].

15.2 Data processing by the beneficiaries

The beneficiaries must process personal data under the Agreement in compliance with the applicable EU, international and national law on data protection (in particular, Regulation 2016/679[14]).

They must ensure that personal data is:

- processed lawfully, fairly and in a transparent manner in relation to the data subjects
- collected for specified, explicit and legitimate purposes and not further processed in a manner that is incompatible with those purposes
- adequate, relevant and limited to what is necessary in relation to the purposes for which they are processed
- accurate and, where necessary, kept up to date
- kept in a form which permits identification of data subjects for no longer than is necessary for the purposes for which the data is processed and
- processed in a manner that ensures appropriate security of the data.

The beneficiaries may grant their personnel access to personal data only if it is strictly necessary for implementing, managing and monitoring the Agreement. The beneficiaries must ensure that the personnel is under a confidentiality obligation.

The beneficiaries must inform the persons whose data are transferred to the granting authority and provide them with the Portal Privacy Statement.

15.3 Consequences of non-compliance

If a beneficiary breaches any of its obligations under this Article, the grant may be reduced (see Article 28).

Such breaches may also lead to other measures described in Chapter 5.

ARTICLE 16 — INTELLECTUAL PROPERTY RIGHTS (IPR) — BACKGROUND AND RESULTS —ACCESS RIGHTS AND RIGHTS OF USE

[13] Regulation (EU) 2018/1725 of the European Parliament and of the Council of 23 October 2018 on the protection of natural persons with regard to the processing of personal data by the Union institutions, bodies, offices and agencies and on the free movement of such data, and repealing Regulation (EC) No 45/2001 and Decision No 1247/2002/EC (OJ L 295, 21.11.2018, p. 39).

[14] Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (‘GDPR’) (OJ L 119, 4.5.2016, p. 1).

16.1 Background and access rights to background

The beneficiaries must give each other and the other participants access to the background identified as needed for implementing the action, subject to any specific rules in Annex 5.

'Background' means any data, know-how or information — whatever its form or nature (tangible or intangible), including any rights such as intellectual property rights — that is:

(a) held by the beneficiaries before they acceded to the Agreement and

(b) needed to implement the action or exploit the results.

If background is subject to rights of a third party, the beneficiary concerned must ensure that it is able to comply with its obligations under the Agreement.

16.2 Ownership of results

The granting authority does not obtain ownership of the results produced under the action.

'Results' means any tangible or intangible effect of the action, such as data, know-how or information, whatever its form or nature, whether or not it can be protected, as well as any rights attached to it, including intellectual property rights.

16.3 Rights of use of the granting authority on materials, documents and information received for policy, information, communication, dissemination and publicity purposes

The granting authority has the right to use non-sensitive information relating to the action and materials and documents received from the beneficiaries (notably summaries for publication, deliverables, as well as any other material, such as pictures or audio-visual material, in paper or electronic form) for policy information, communication, dissemination and publicity purposes — during the action or afterwards.

The right to use the beneficiaries' materials, documents and information is granted in the form of a royalty-free, non-exclusive and irrevocable licence, which includes the following rights:

(a) **use for its own purposes** (in particular, making them available to persons working for the granting authority or any other EU service (including institutions, bodies, offices, agencies, etc.) or EU Member State institution or body; copying or reproducing them in whole or in part, in unlimited numbers; and communication through press information services)

(b) **distribution to the public** (in particular, publication as hard copies and in electronic or digital format, publication on the internet, as a downloadable or non-downloadable file, broadcasting by any channel, public display or presentation, communicating through press information services, or inclusion in widely accessible databases or indexes)

(c) **editing or redrafting** (including shortening, summarising, inserting other elements (e.g. meta-data, legends, other graphic, visual, audio or text elements), extracting parts (e.g. audio or video files), dividing into parts, use in a compilation)

(d) **translation**

(e) **storage** in paper, electronic or other form

(f) **archiving**, in line with applicable document-management rules

(g) the right to authorise **third parties** to act on its behalf or sub-license to third parties the modes of use set out in Points (b), (c), (d) and (f), if needed for the information, communication and publicity activity of the granting authority and

(h) **processing**, analysing, aggregating the materials, documents and information received and **producing derivative works**.

The rights of use are granted for the whole duration of the industrial or intellectual property rights concerned.

If materials or documents are subject to moral rights or third party rights (including intellectual property rights or rights of natural persons on their image and voice), the beneficiaries must ensure that they comply with their obligations under this Agreement (in particular, by obtaining the necessary licences and authorisations from the rights holders concerned).

Where applicable, the granting authority will insert the following information:

"© – [year] – [name of the copyright owner]. All rights reserved. Licensed to the [name of granting authority] under conditions."

16.4 Specific rules on IPR, results and background

Specific rules regarding intellectual property rights, results and background (if any) are set out in Annex 5.

16.5 Consequences of non-compliance

If a beneficiary breaches any of its obligations under this Article, the grant may be reduced (see Article 28).

Such a breach may also lead to other measures described in Chapter 5.

ARTICLE 17 — COMMUNICATION, DISSEMINATION AND VISIBILITY

17.1 Communication — Dissemination — Promoting the action

Unless otherwise agreed with the granting authority, the beneficiaries must promote the action and its results by providing targeted information to multiple audiences (including the media and the public), in accordance with Annex 1 and in a strategic, coherent and effective manner.

Before engaging in a communication or dissemination activity expected to have a major media impact, the beneficiaries must inform the granting authority.

17.2 Visibility — European flag and funding statement

Unless otherwise agreed with the granting authority, communication activities of the beneficiaries related to the action (including media relations, conferences, seminars, information material, such as brochures, leaflets, posters, presentations, etc., in electronic form, via traditional or social media, etc.), dissemination activities and any infrastructure, equipment, vehicles, supplies or major result funded

by the grant must acknowledge the EU support and display the European flag (emblem) and funding statement (translated into local languages, where appropriate):

The emblem must remain distinct and separate and cannot be modified by adding other visual marks, brands or text.

Apart from the emblem, no other visual identity or logo may be used to highlight the EU support.

When displayed in association with other logos (e.g. of beneficiaries or sponsors), the emblem must be displayed at least as prominently and visibly as the other logos.

For the purposes of their obligations under this Article, the beneficiaries may use the emblem without first obtaining approval from the granting authority. This does not, however, give them the right to exclusive use. Moreover, they may not appropriate the emblem or any similar trademark or logo, either by registration or by any other means.

17.3 Quality of information — Disclaimer

Any communication or dissemination activity related to the action must use factually accurate information.

Moreover, it must indicate the following disclaimer (translated into local languages where appropriate):

> "Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or [name of the granting authority]. Neither the European Union nor the granting authority can be held responsible for them."

17.4 Specific communication, dissemination and visibility rules

Specific communication, dissemination and visibility rules (if any) are set out in Annex 5.

17.5 Consequences of non-compliance

If a beneficiary breaches any of its obligations under this Article, the grant may be reduced (see Article 28).

Such breaches may also lead to other measures described in Chapter 5.

ARTICLE 18 — SPECIFIC RULES FOR CARRYING OUT THE ACTION

18.1 Specific rules for carrying out the action

Specific rules for implementing the action (if any) are set out in Annex 5.

18.2 Consequences of non-compliance

If a beneficiary breaches any of its obligations under this Article, the grant may be reduced (see Article 28).

Such a breach may also lead to other measures described in Chapter 5.

SECTION 3 GRANT ADMINISTRATION

ARTICLE 19 — GENERAL INFORMATION OBLIGATIONS

19.1 Information requests

The beneficiaries must provide — during the action or afterwards and in accordance with Article 7 — any information requested in order to verify eligibility of the lump sum contributions declared, proper implementation of the action and compliance with the other obligations under the Agreement.

The information provided must be accurate, precise and complete and in the format requested, including electronic format.

19.2 Participant Register data updates

The beneficiaries must keep — at all times, during the action or afterwards — their information stored in the Portal Participant Register up to date, in particular, their name, address, legal representatives, legal form and organisation type.

19.3 Information about events and circumstances which impact the action

The beneficiaries must immediately inform the granting authority (and the other beneficiaries) of any of the following:

(a) **events** which are likely to affect or delay the implementation of the action or affect the EU's financial interests, in particular:

(i) changes in their legal, financial, technical, organisational or ownership situation (including changes linked to one of the exclusion grounds listed in the declaration of honour signed before grant signature)

(ii) linked action information: not applicable

(b) **circumstances** affecting:

(i) the decision to award the grant or

(ii) compliance with requirements under the Agreement.

19.4 Consequences of non-compliance

If a beneficiary breaches any of its obligations under this Article, the grant may be reduced (see Article 28).

Such breaches may also lead to other measures described in Chapter 5.

ARTICLE 20 — RECORD-KEEPING

20.1 Keeping records and supporting documents

The beneficiaries must — at least until the time-limit set out in the Data Sheet (see Point 6) — keep records and other supporting documents to prove the proper implementation of the action (proper implementation of the work and/or achievement of the results as described in Annex 1) in line with the accepted standards in the respective field (if any); beneficiaries do not need to keep specific records on the actual costs incurred.

The records and supporting documents must be made available upon request (see Article 19) or in the context of checks, reviews, audits or investigations (see Article 25).

If there are on-going checks, reviews, audits, investigations, litigation or other pursuits of claims under the Agreement (including the extension of findings; see Article 25), the beneficiaries must keep these records and other supporting documentation until the end of these procedures.

The beneficiaries must keep the original documents. Digital and digitalised documents are considered originals if they are authorised by the applicable national law. The granting authority may accept non-original documents if they offer a comparable level of assurance.

20.2 Consequences of non-compliance

If a beneficiary breaches any of its obligations under this Article, lump sum contributions insufficiently substantiated will be ineligible (see Article 6) and will be rejected (see Article 27), and the grant may be reduced (see Article 28).

Such breaches may also lead to other measures described in Chapter 5.

ARTICLE 21 — REPORTING

21.1 Continuous reporting

The beneficiaries must continuously report on the progress of the action (e.g. **deliverables, milestones, outputs/outcomes, critical risks, indicators,** etc; if any), in the Portal Continuous

Reporting tool and in accordance with the timing and conditions it sets out (as agreed with the granting authority).

Standardised deliverables (e.g. progress reports not linked to payments, reports on cumulative expenditure, special reports, etc; if any) must be submitted using the templates published on the Portal.

21.2 Periodic reporting: Technical reports and financial statements

In addition, the beneficiaries must provide reports to request payments, in accordance with the schedule and modalities set out in the Data Sheet (see Point 4.2):

- for additional prefinancings (if any): **an additional prefinancing report**
- for interim payments (if any) and the final payment: a **periodic report**

The prefinancing and periodic reports include a technical and financial part.

The technical part includes an overview of the action implementation. It must be prepared using the template available in the Portal Periodic Reporting tool.

The financial part of the additional prefinancing report includes a statement on the use of the previous prefinancing payment.

The financial part of the periodic report includes:

- the financial statement (consolidated statement for the consortium)
- the explanation on the use of resources (or detailed cost reporting table): not applicable
- the certificates on the financial statements (CFS): not applicable.

The **financial statement** must contain the lump sum contributions indicated in Annex 2, for the work packages that were completed during the reporting period.

For the last reporting period, the beneficiaries may exceptionally also declare partial lump sum contributions for work packages that were not completed (e.g. due to force majeure or technical impossibility).

Lump sum contributions which are not declared in a financial statement will not be taken into account by the granting authority.

By signing the financial statement (directly in the Portal Periodic Reporting tool), the coordinator confirms (on behalf of the consortium) that:

- the information provided is complete, reliable and true
- the lump sum contributions declared are eligible (in particular, the work packages have been completed, that the work has been properly implemented and/or the results were achieved in accordance with Annex 1; see Article 6)
- the proper implementation and/or achievement can be substantiated by adequate records and supporting documents (see Article 20) that will be produced upon request (see Article 19) or in the context of checks, reviews, audits and investigations (see Article 25).

In case of recoveries (see Article 22), beneficiaries will be held responsible also for the lump sum contributions declared for their affiliated entities (if any).

21.3 Currency for financial statements and conversion into euros

The financial statements must be drafted in euro.

21.4 Reporting language

The reporting must be in the language of the Agreement, unless otherwise agreed with the granting authority (see Data Sheet, Point 4.2).

21.5 Consequences of non-compliance

If a report submitted does not comply with this Article, the granting authority may suspend the payment deadline (see Article 29) and apply other measures described in Chapter 5.

If the coordinator breaches its reporting obligations, the granting authority may terminate the grant or the coordinator's participation (see Article 32) or apply other measures described in Chapter 5.

ARTICLE 22 — PAYMENTS AND RECOVERIES — CALCULATION OF AMOUNTS DUE

22.1 Payments and payment arrangements

Payments will be made in accordance with the schedule and modalities set out in the Data Sheet (see Point 4.2).

They will be made in euro to the bank account indicated by the coordinator (see Data Sheet, Point 4.2) and must be distributed without unjustified delay (restrictions may apply to distribution of the initial prefinancing payment; see Data Sheet, Point 4.2).

Payments to this bank account will discharge the granting authority from its payment obligation.

The cost of payment transfers will be borne as follows:

- the granting authority bears the cost of transfers charged by its bank
- the beneficiary bears the cost of transfers charged by its bank
- the party causing a repetition of a transfer bears all costs of the repeated transfer.

Payments by the granting authority will be considered to have been carried out on the date when they are debited to its account.

22.2 Recoveries

Recoveries will be made, if — at beneficiary termination, final payment or afterwards — it turns out that the granting authority has paid too much and needs to recover the amounts undue.

The general liability regime for recoveries (first-line liability) is as follows: At final payment, the coordinator will be fully liable for recoveries, even if it has not been the final recipient of the undue

amounts. At beneficiary termination or after final payment, recoveries will be made directly against the beneficiaries concerned.

Beneficiaries will be fully liable for repaying the debts of their affiliated entities.

In case of enforced recoveries (see Article 22.4):

- the beneficiaries will be jointly and severally liable for repaying debts of another beneficiary under the Agreement (including late-payment interest), if required by the granting authority (see Data Sheet, Point 4.4)

- affiliated entities will be held liable for repaying debts of their beneficiaries under the Agreement (including late-payment interest), if required by the granting authority (see Data Sheet, Point 4.4).

22.3 Amounts due

22.3.1 Prefinancing payments

The aim of the prefinancing is to provide the beneficiaries with a float.

It remains the property of the EU until the final payment.

For **initial prefinancings** (if any), the amount due, schedule and modalities are set out in the Data Sheet (see Point 4.2).

For **additional prefinancings** (if any), the amount due, schedule and modalities are also set out in the Data Sheet (see Point 4.2). However, if the statement on the use of the previous prefinancing payment shows that less than 70% was used, the amount set out in the Data Sheet will be reduced by the difference between the 70% threshold and the amount used.

Prefinancing payments (or parts of them) may be offset (without the beneficiaries' consent) against amounts owed by a beneficiary to the granting authority — up to the amount due to that beneficiary.

For grants where the granting authority is the European Commission or an EU executive agency, offsetting may also be done against amounts owed to other Commission services or executive agencies.

Payments will not be made if the payment deadline or payments are suspended (see Articles 29 and 30).

22.3.2 Amount due at beneficiary termination — Recovery

In case of beneficiary termination, the granting authority will determine the provisional amount due for the beneficiary concerned.

This will be done on the basis of work packages already completed in previous interim payments. Payments for ongoing/not yet completed work packages which the beneficiary was working on before termination (if any) will therefore be made only later on, with the next interim or final payments when those work packages have been completed.

The **amount due** will be calculated in the following step:

Step 1 — Calculation of the total accepted EU contribution

Step 1 — Calculation of the total accepted EU contribution

The granting authority will first calculate the 'accepted EU contribution' for the beneficiary, on the basis of the beneficiary's lump sum contributions for the work packages which were approved in previous interim payments.

After that, the granting authority will take into account grant reductions (if any). The resulting amount is the 'total accepted EU contribution' for the beneficiary.

The **balance** is then calculated by deducting the payments received (if any; see report on the distribution of payments in Article 32), from the total accepted EU contribution:

{total accepted EU contribution for the beneficiary

minus

{prefinancing and interim payments received (if any)}}.

If the balance is **negative**, it will be **recovered** in accordance with the following procedure:

The granting authority will send a **pre-information letter** to the beneficiary concerned:

- formally notifying the intention to recover, the amount due, the amount to be recovered and the reasons why and
- requesting observations within 30 days of receiving notification.

If no observations are submitted (or the granting authority decides to pursue recovery despite the observations it has received), it will confirm the amount to be recovered and ask this amount to be paid to the coordinator (**confirmation letter**).

22.3.3 Interim payments

Interim payments reimburse the eligible lump sum contributions claimed for work packages implemented during the reporting periods (if any).

Interim payments (if any) will be made in accordance with the schedule and modalities set out the Data Sheet (see Point 4.2).

Payment is subject to the approval of the periodic report and the work packages declared. Their approval does not imply recognition of compliance, authenticity, completeness or correctness of their content.

Incomplete work packages and work packages that have not been delivered or cannot be approved will be rejected (see Article 27).

The **interim payment** will be calculated by the granting authority in the following steps:

Step 1 — Calculation of the total accepted EU contribution

Step 2 — Limit to the interim payment ceiling

Step 1 — Calculation of the total accepted EU contribution

The granting authority will first calculate the 'accepted EU contribution' for the action for the reporting period, by calculating the lump sum contributions for the approved work packages.

After that, the granting authority will take into account grant reductions from beneficiary termination (if any). The resulting amount is the 'total accepted EU contribution'.

Step 2 — Limit to the interim payment ceiling

The resulting amount is then capped to ensure that the total amount of prefinancing and interim payments (if any) does not exceed the interim payment ceiling set out in the Data Sheet (see Point 4.2).

Interim payments (or parts of them) may be offset (without the beneficiaries' consent) against amounts owed by a beneficiary to the granting authority — up to the amount due to that beneficiary.

For grants where the granting authority is the European Commission or an EU executive agency, offsetting may also be done against amounts owed to other Commission services or executive agencies.

Payments will not be made if the payment deadline or payments are suspended (see Articles 29 and 30).

22.3.4 Final payment — Final grant amount — Revenues and Profit — Recovery

The final payment (payment of the balance) reimburses the remaining eligible lump sum contributions claimed for the implemented work packages (if any).

The final payment will be made in accordance with the schedule and modalities set out in the Data Sheet (see Point 4.2).

Payment is subject to the approval of the final periodic report and the work packages declared. Their approval does not imply recognition of compliance, authenticity, completeness or correctness of their content.

Work packages (or parts of them) that have not been delivered or cannot be approved will be rejected (see Article 27).

The **final grant amount for the action** will be calculated in the following steps:

Step 1 — Calculation of the total accepted EU contribution

Step 2 — Limit to the maximum grant amount

Step 3 — Reduction due to the no-profit rule

Step 1 — Calculation of the total accepted EU contribution

The granting authority will first calculate the 'accepted EU contribution' for the action for all reporting periods, by calculating the lump sum contributions for the approved work packages.

After that, the granting authority will take into account grant reductions (if any). The resulting amount is the 'total accepted EU contribution'.

Step 2 — Limit to the maximum grant amount

Not applicable

Step 3 — Reduction due to the no-profit rule

Not applicable

The **balance** (final payment) is then calculated by deducting the total amount of prefinancing and interim payments already made (if any), from the final grant amount:

{final grant amount

minus

{prefinancing and interim payments made (if any)}}.

If the balance is **positive**, it will be **paid** to the coordinator.

The final payment (or part of it) may be offset (without the beneficiaries' consent) against amounts owed by a beneficiary to the granting authority — up to the amount due to that beneficiary.

For grants where the granting authority is the European Commission or an EU executive agency, offsetting may also be done against amounts owed to other Commission services or executive agencies.

Payments will not be made if the payment deadline or payments are suspended (see Articles 29 and 30).

If the balance is **negative**, it will be **recovered** in accordance with the following procedure:

The granting authority will send a **pre-information letter** to the coordinator:

- formally notifying the intention to recover, the final grant amount, the amount to be recovered and the reasons why
- requesting observations within 30 days of receiving notification.

If no observations are submitted (or the granting authority decides to pursue recovery despite the observations it has received), it will confirm the amount to be recovered (**confirmation letter**), together with a **debit note** with the terms and date for payment.

If payment is not made by the date specified in the debit note, the granting authority will **enforce recovery** in accordance with Article 22.4.

22.3.5 Audit implementation after final payment — Revised final grant amount — Recovery

If — after the final payment (in particular, after checks, reviews, audits or investigations; see Article 25) — the granting authority rejects lump sum contributions (see Article 27) or reduces the grant (see Article 28), it will calculate the **revised final grant amount** for the beneficiary concerned.

The **beneficiary revised final grant amount** will be calculated in the following step:

Step 1 — Calculation of the revised total accepted EU contribution

Step 1 — Calculation of the revised total accepted EU contribution

The granting authority will first calculate the 'revised accepted EU contribution' for the beneficiary, by calculating the 'revised accepted contributions'.

After that, it will take into account grant reductions (if any). The resulting 'revised total accepted EU contribution' is the beneficiary revised final grant amount.

If the revised final grant amount is lower than the beneficiary's final grant amount (i.e. its share in the final grant amount for the action), it will be **recovered** in accordance with the following procedure:

The **beneficiary final grant amount** (i.e. share in the final grant amount for the action) is calculated as follows:

{{total accepted EU contribution for the beneficiary

divided by

total accepted EU contribution for the action}

multiplied by

final grant amount for the action}.

The granting authority will send a **pre-information letter** to the beneficiary concerned:

- formally notifying the intention to recover, the amount to be recovered and the reasons why and
- requesting observations within 30 days of receiving notification.

If no observations are submitted (or the granting authority decides to pursue recovery despite the observations it has received), it will confirm the amount to be recovered (**confirmation letter**), together with a **debit note** with the terms and the date for payment.

Recoveries against affiliated entities (if any) will be handled through their beneficiaries.

If payment is not made by the date specified in the debit note, the granting authority will **enforce recovery** in accordance with Article 22.4.

22.4 Enforced recovery

If payment is not made by the date specified in the debit note, the amount due will be recovered:

(a) by offsetting the amount — without the coordinator or beneficiary's consent — against any amounts owed to the coordinator or beneficiary by the granting authority.

In exceptional circumstances, to safeguard the EU financial interests, the amount may be offset before the payment date specified in the debit note.

For grants where the granting authority is the European Commission or an EU executive agency, debts may also be offset against amounts owed by other Commission services or executive agencies.

(b) by drawing on the financial guarantee(s) (if any)

(c) by holding other beneficiaries jointly and severally liable (if any; see Data Sheet, Point 4.4)

(d) by holding affiliated entities jointly and severally liable (if any, see Data Sheet, Point 4.4)

(e) by taking legal action (see Article 43) or, provided that the granting authority is the European Commission or an EU executive agency, by adopting an enforceable decision under Article 299 of the Treaty on the Functioning of the EU (TFEU) and Article 100(2) of EU Financial Regulation 2018/1046.

The amount to be recovered will be increased by **late-payment interest** at the rate set out in Article 23.5, from the day following the payment date in the debit note, up to and including the date the full payment is received.

Partial payments will be first credited against expenses, charges and late-payment interest and then against the principal.

Bank charges incurred in the recovery process will be borne by the beneficiary, unless Directive 2015/2366[15] applies.

For grants where the granting authority is an EU executive agency, enforced recovery by offsetting or enforceable decision will be done by the services of the European Commission (see also Article 43).

22.5 Consequences of non-compliance

22.5.1 If the granting authority does not pay within the payment deadlines (see above), the beneficiaries are entitled to **late-payment interest** at the reference rate applied by the European Central Bank (ECB) for its main refinancing operations in euros, plus the percentage specified in the Data Sheet (Point 4.2). The ECB reference rate to be used is the rate in force on the first day of the month in which the payment deadline expires, as published in the C series of the *Official Journal of the European Union*.

If the late-payment interest is lower than or equal to EUR 200, it will be paid to the coordinator only on request submitted within two months of receiving the late payment.

Late-payment interest is not due if all beneficiaries are EU Member States (including regional and local government authorities or other public bodies acting on behalf of a Member State for the purpose of this Agreement).

If payments or the payment deadline are suspended (see Articles 29 and 30), payment will not be considered as late.

Late-payment interest covers the period running from the day following the due date for payment (see above), up to and including the date of payment.

Late-payment interest is not considered for the purposes of calculating the final grant amount.

22.5.2 If the coordinator breaches any of its obligations under this Article, the grant may be reduced (see Article 28) and the grant or the coordinator may be terminated (see Article 32).

[15] Directive (EU) 2015/2366 of the European Parliament and of the Council of 25 November 2015 on payment services in the internal market, amending Directives 2002/65/EC, 2009/110/EC and 2013/36/EU and Regulation (EU) No 1093/2010, and repealing Directive 2007/64/EC (OJ L 337, 23.12.2015, p. 35).

Such breaches may also lead to other measures described in Chapter 5.

ARTICLE 23 — GUARANTEES

23.1 Prefinancing guarantee

If required by the granting authority (see Data Sheet, Point 4.2), the beneficiaries must provide (one or more) prefinancing guarantee(s) in accordance with the timing and the amounts set out in the Data Sheet.

The coordinator must submit them to the granting authority in due time before the prefinancing they are linked to.

The guarantees must be drawn up using the template published on the Portal and fulfil the following conditions:

(a) be provided by a bank or approved financial institution established in the EU or — if requested by the coordinator and accepted by the granting authority — by a third party or a bank or financial institution established outside the EU offering equivalent security

(b) the guarantor stands as first-call guarantor and does not require the granting authority to first have recourse against the principal debtor (i.e. the beneficiary concerned) and

(c) remain explicitly in force until the final payment and, if the final payment takes the form of a recovery, until five months after the debit note is notified to a beneficiary.

They will be released within the following month.

23.2 Consequences of non-compliance

If the beneficiaries breach their obligation to provide the prefinancing guarantee, the prefinancing will not be paid.

Such breaches may also lead to other measures described in Chapter 5.

ARTICLE 24 — CERTIFICATES

Not applicable

ARTICLE 25 — CHECKS, REVIEWS, AUDITS AND INVESTIGATIONS — EXTENSION OF FINDINGS

25.1 Granting authority checks, reviews and audits

25.1.1 Internal checks

The granting authority may — during the action or afterwards — check the proper implementation of the action and compliance with the obligations under the Agreement, including assessing lump sum contributions, deliverables and reports.

25.1.2 Project reviews

The granting authority may carry out reviews on the proper implementation of the action and compliance with the obligations under the Agreement (general project reviews or specific issues reviews).

Such project reviews may be started during the implementation of the action and until the time-limit set out in the Data Sheet (see Point 6). They will be formally notified to the coordinator or beneficiary concerned and will be considered to start on the date of the notification.

If needed, the granting authority may be assisted by independent, outside experts. If it uses outside experts, the coordinator or beneficiary concerned will be informed and have the right to object on grounds of commercial confidentiality or conflict of interest.

The coordinator or beneficiary concerned must cooperate diligently and provide — within the deadline requested — any information and data in addition to deliverables and reports already submitted. The granting authority may request beneficiaries to provide such information to it directly. Sensitive information and documents will be treated in accordance with Article 13.

The coordinator or beneficiary concerned may be requested to participate in meetings, including with the outside experts.

For **on-the-spot visits**, the beneficiary concerned must allow access to sites and premises (including to the outside experts) and must ensure that information requested is readily available.

Information provided must be accurate, precise and complete and in the format requested, including electronic format.

On the basis of the review findings, a **project review report** will be drawn up.

The granting authority will formally notify the project review report to the coordinator or beneficiary concerned, which has 30 days from receiving notification to make observations.

Project reviews (including project review reports) will be in the language of the Agreement, unless otherwise agreed with the granting authority (see Data Sheet, Point 4.2).

25.1.3 Audits

The granting authority may carry out audits on the proper implementation of the action and compliance with the obligations under the Agreement.

Such audits may be started during the implementation of the action and until the time-limit set out in the Data Sheet (see Point 6). They will be formally notified to the beneficiary concerned and will be considered to start on the date of the notification.

The granting authority may use its own audit service, delegate audits to a centralised service or use external audit firms. If it uses an external firm, the beneficiary concerned will be informed and have the right to object on grounds of commercial confidentiality or conflict of interest.

The beneficiary concerned must cooperate diligently and provide — within the deadline requested — any information (including complete accounts, individual salary statements or other personal data) to verify compliance with the Agreement. Sensitive information and documents will be treated in accordance with Article 13.

For **on-the-spot** visits, the beneficiary concerned must allow access to sites and premises (including for the external audit firm) and must ensure that information requested is readily available.

Information provided must be accurate, precise and complete and in the format requested, including electronic format.

On the basis of the audit findings, a **draft audit report** will be drawn up.

The auditors will formally notify the draft audit report to the beneficiary concerned, which has 30 days from receiving notification to make observations (contradictory audit procedure).

The **final audit report** will take into account observations by the beneficiary concerned and will be formally notified to them.

Audits (including audit reports) will be in the language of the Agreement, unless otherwise agreed with the granting authority (see Data Sheet, Point 4.2).

25.2 European Commission checks, reviews and audits in grants of other granting authorities

Where the granting authority is not the European Commission, the latter has the same rights of checks, reviews and audits as the granting authority.

25.3 Access to records for assessing simplified forms of funding

The beneficiaries must give the European Commission access to their statutory records for the periodic assessment of simplified forms of funding which are used in EU programmes.

25.4 OLAF, EPPO and ECA audits and investigations

The following bodies may also carry out checks, reviews, audits and investigations — during the action or afterwards:

- the European Anti-Fraud Office (OLAF) under Regulations No 883/2013[16] and No 2185/96[17]
- the European Public Prosecutor's Office (EPPO) under Regulation 2017/1939
- the European Court of Auditors (ECA) under Article 287 of the Treaty on the Functioning of the EU (TFEU) and Article 257 of EU Financial Regulation 2018/1046.

If requested by these bodies, the beneficiary concerned must provide full, accurate and complete information in the format requested (including complete accounts, individual salary statements or other personal data, including in electronic format) and allow access to sites and premises for on-the-spot visits or inspections — as provided for under these Regulations.

[16] Regulation (EU, Euratom) No 883/2013 of the European Parliament and of the Council of 11 September 2013 concerning investigations conducted by the European Anti-Fraud Office (OLAF) and repealing Regulation (EC) No 1073/1999 of the European Parliament and of the Council and Council Regulation (Euratom) No 1074/1999 (OJ L 248, 18/09/2013, p. 1).

[17] Council Regulation (Euratom, EC) No 2185/96 of 11 November 1996 concerning on-the-spot checks and inspections carried out by the Commission in order to protect the European Communities' financial interests against fraud and other irregularities (OJ L 292, 15/11/1996, p. 2).

To this end, the beneficiary concerned must keep all relevant information relating to the action, at least until the time-limit set out in the Data Sheet (Point 6) and, in any case, until any ongoing checks, reviews, audits, investigations, litigation or other pursuits of claims have been concluded.

25.5 Consequences of checks, reviews, audits and investigations — Extension of findings

25.5.1 Consequences of checks, reviews, audits and investigations in this grant

Findings in checks, reviews, audits or investigations carried out in the context of this grant may lead to rejections (see Article 27), grant reduction (see Article 28) or other measures described in Chapter 5.

Rejections or grant reductions after the final payment will lead to a revised final grant amount (see Article 22).

Findings in checks, reviews, audits or investigations during the action implementation may lead to a request for amendment (see Article 39), to change the description of the action set out in Annex 1.

Checks, reviews, audits or investigations that find systemic or recurrent errors, irregularities, fraud or breach of obligations in any EU grant may also lead to consequences in other EU grants awarded under similar conditions (‘extension to other grants’).

Moreover, findings arising from an OLAF or EPPO investigation may lead to criminal prosecution under national law.

25.5.2 Extension from other grants

Findings of checks, reviews, audits or investigations in other grants may be extended to this grant, if:

(a) the beneficiary concerned is found, in other EU grants awarded under similar conditions, to have committed systemic or recurrent errors, irregularities, fraud or breach of obligations that have a material impact on this grant and

(b) those findings are formally notified to the beneficiary concerned — together with the list of grants affected by the findings — within the time-limit for audits set out in the Data Sheet (see Point 6).

The granting authority will formally notify the beneficiary concerned of the intention to extend the findings and the list of grants affected.

If the extension concerns **rejections of lump sum contributions**: the notification will include:

(a) an invitation to submit observations on the list of grants affected by the findings

(b) the request to submit revised financial statements for all grants affected

(c) the correction rate for extrapolation, established on the basis of the systemic or recurrent errors, to calculate the amounts to be rejected, if the beneficiary concerned:

  (i) considers that the submission of revised financial statements is not possible or practicable or

  (ii) does not submit revised financial statements.

If the extension concerns **grant reductions**: the notification will include:

(a) an invitation to submit observations on the list of grants affected by the findings and

(b) the **correction rate for extrapolation**, established on the basis of the systemic or recurrent errors and the principle of proportionality.

The beneficiary concerned has **60 days** from receiving notification to submit observations, revised financial statements or to propose a duly substantiated **alternative correction method/rate**.

On the basis of this, the granting authority will analyse the impact and decide on the implementation (i.e. start rejection or grant reduction procedures, either on the basis of the revised financial statements or the announced/alternative method/rate or a mix of those; see Articles 27 and 28).

25.6 Consequences of non-compliance

If a beneficiary breaches any of its obligations under this Article, lump sum contributions insufficiently substantiated will be ineligible (see Article 6) and will be rejected (see Article 27), and the grant may be reduced (see Article 28).

Such breaches may also lead to other measures described in Chapter 5.

ARTICLE 26 — IMPACT EVALUATIONS

26.1 Impact evaluation

The granting authority may carry out impact evaluations of the action, measured against the objectives and indicators of the EU programme funding the grant.

Such evaluations may be started during implementation of the action and until the time-limit set out in the Data Sheet (see Point 6). They will be formally notified to the coordinator or beneficiaries and will be considered to start on the date of the notification.

If needed, the granting authority may be assisted by independent outside experts.

The coordinator or beneficiaries must provide any information relevant to evaluate the impact of the action, including information in electronic format.

26.2 Consequences of non-compliance

If a beneficiary breaches any of its obligations under this Article, the granting authority may apply the measures described in Chapter 5.

CHAPTER 5 CONSEQUENCES OF NON-COMPLIANCE

SECTION 1 REJECTIONS AND GRANT REDUCTION

ARTICLE 27 — REJECTION OF CONTRIBUTIONS

27.1 Conditions

The granting authority will — at interim payment, final payment or afterwards — reject any lump sum contributions which are ineligible (see Article 6), in particular following checks, reviews, audits or investigations (see Article 25).

The rejection may also be based on the extension of findings from other grants to this grant (see Article 25).

Ineligible lump sum contributions will be rejected.

27.2 Procedure

If the rejection does not lead to a recovery, the granting authority will formally notify the coordinator or beneficiary concerned of the rejection, the amounts and the reasons why. The coordinator or beneficiary concerned may — within 30 days of receiving notification — submit observations if it disagrees with the rejection (payment review procedure).

If the rejection leads to a recovery, the granting authority will follow the contradictory procedure with pre-information letter set out in Article 22.

27.3 Effects

If the granting authority rejects lump sum contributions, it will deduct them from the lump sum contributions declared and then calculate the amount due (and, if needed, make a recovery; see Article 22).

ARTICLE 28 — GRANT REDUCTION

28.1 Conditions

The granting authority may — at beneficiary termination, final payment or afterwards — reduce the grant for a beneficiary, if:

(a) the beneficiary (or a person having powers of representation, decision-making or control, or person essential for the award/implementation of the grant) has committed:

  (i) substantial errors, irregularities or fraud or

  (ii) serious breach of obligations under this Agreement or during its award (including improper implementation of the action, non-compliance with the call conditions, submission of false information, failure to provide required information, breach of ethics or security rules (if applicable), etc.), or

(b) the beneficiary (or a person having powers of representation, decision-making or control, or person essential for the award/implementation of the grant) has committed — in other EU grants awarded to it under similar conditions — systemic or recurrent errors, irregularities, fraud or serious breach of obligations that have a material impact on this grant (extension of findings; see Article 25.5).

The amount of the reduction will be calculated for each beneficiary concerned and proportionate to the seriousness and the duration of the errors, irregularities or fraud or breach of obligations, by applying an individual reduction rate to their accepted EU contribution.

28.2 Procedure

If the grant reduction does not lead to a recovery, the granting authority will formally notify the coordinator or beneficiary concerned of the reduction, the amount to be reduced and the reasons why. The coordinator or beneficiary concerned may — within 30 days of receiving notification — submit observations if it disagrees with the reduction (payment review procedure).

If the grant reduction leads to a recovery, the granting authority will follow the contradictory procedure with pre-information letter set out in Article 22.

28.3 Effects

If the granting authority reduces the grant, it will deduct the reduction and then calculate the amount due (and, if needed, make a recovery; see Article 22).

SECTION 2 SUSPENSION AND TERMINATION

ARTICLE 29 — PAYMENT DEADLINE SUSPENSION

29.1 Conditions

The granting authority may — at any moment — suspend the payment deadline if a payment cannot be processed because:

(a) the required report (see Article 21) has not been submitted or is not complete or additional information is needed

(b) there are doubts about the amount to be paid (e.g. ongoing extension procedure, queries about eligibility, need for a grant reduction, etc.) and additional checks, reviews, audits or investigations are necessary, or

(c) there are other issues affecting the EU financial interests.

29.2 Procedure

The granting authority will formally notify the coordinator of the suspension and the reasons why.

The suspension will **take effect** the day the notification is sent.

If the conditions for suspending the payment deadline are no longer met, the suspension will be **lifted** — and the remaining time to pay (see Data Sheet, Point 4.2) will resume.

If the suspension exceeds two months, the coordinator may request the granting authority to confirm if the suspension will continue.

If the payment deadline has been suspended due to the non-compliance of the report and the revised report is not submitted (or was submitted but is also rejected), the granting authority may also terminate the grant or the participation of the coordinator (see Article 32).

ARTICLE 30 — PAYMENT SUSPENSION

30.1 Conditions

The granting authority may — at any moment — suspend payments, in whole or in part for one or more beneficiaries, if:

(a) a beneficiary (or a person having powers of representation, decision-making or control, or person essential for the award/implementation of the grant) has committed or is suspected of having committed:

(i) substantial errors, irregularities or fraud or

(ii) serious breach of obligations under this Agreement or during its award (including improper implementation of the action, non-compliance with the call conditions, submission of false information, failure to provide required information, breach of ethics or security rules (if applicable), etc.), or

(b) a beneficiary (or a person having powers of representation, decision-making or control, or person essential for the award/implementation of the grant) has committed — in other EU grants awarded to it under similar conditions — systemic or recurrent errors, irregularities, fraud or serious breach of obligations that have a material impact on this grant (extension of findings; see Article 25.5).

If payments are suspended for one or more beneficiaries, the granting authority will make partial payment(s) for the part(s) not suspended. If suspension concerns the final payment, the payment (or recovery) of the remaining amount after suspension is lifted will be considered to be the payment that closes the action.

30.2 Procedure

Before suspending payments, the granting authority will send a **pre-information letter** to the beneficiary concerned:

- formally notifying the intention to suspend payments and the reasons why and
- requesting observations within 30 days of receiving notification.

If the granting authority does not receive observations or decides to pursue the procedure despite the observations it has received, it will confirm the suspension (**confirmation letter**). Otherwise, it will formally notify that the procedure is discontinued.

At the end of the suspension procedure, the granting authority will also inform the coordinator.

The suspension will **take effect** the day after the confirmation notification is sent.

If the conditions for resuming payments are met, the suspension will be **lifted**. The granting authority will formally notify the beneficiary concerned (and the coordinator) and set the suspension end date.

During the suspension, no prefinancing will be paid to the beneficiaries concerned. For interim payments, the periodic reports for all reporting periods except the last one (see Article 21) must not contain any financial statements from the beneficiary concerned (or its affiliated entities). The coordinator must include them in the next periodic report after the suspension is lifted or — if suspension is not lifted before the end of the action — in the last periodic report.

ARTICLE 31 — GRANT AGREEMENT SUSPENSION

31.1 Consortium-requested GA suspension

31.1.1 Conditions and procedure

The beneficiaries may request the suspension of the grant or any part of it, if exceptional circumstances — in particular *force majeure* (see Article 35) — make implementation impossible or excessively difficult.

The coordinator must submit a request for **amendment** (see Article 39), with:

- the reasons why
- the date the suspension takes effect; this date may be before the date of the submission of the amendment request and
- the expected date of resumption.

The suspension will **take effect** on the day specified in the amendment.

Once circumstances allow for implementation to resume, the coordinator must immediately request another **amendment** of the Agreement to set the suspension end date, the resumption date (one day after suspension end date), extend the duration and make other changes necessary to adapt the action to the new situation (see Article 39) — unless the grant has been terminated (see Article 32). The suspension will be **lifted** with effect from the suspension end date set out in the amendment. This date may be before the date of the submission of the amendment request.

During the suspension, no prefinancing will be paid. Moreover, no work may be done. Ongoing work packages must be interrupted and no new work packages may be started.

31.2 EU-initiated GA suspension

31.2.1 Conditions

The granting authority may suspend the grant or any part of it, if:

(a) a beneficiary (or a person having powers of representation, decision-making or control, or person essential for the award/implementation of the grant) has committed or is suspected of having committed:

  (i) substantial errors, irregularities or fraud or

  (ii) serious breach of obligations under this Agreement or during its award (including improper implementation of the action, non-compliance with the call conditions, submission of false information, failure to provide required information, breach of ethics or security rules (if applicable), etc.), or

(b) a beneficiary (or a person having powers of representation, decision-making or control, or person essential for the award/implementation of the grant) has committed — in other EU grants awarded to it under similar conditions — systemic or recurrent errors, irregularities, fraud or

serious breach of obligations that have a material impact on this grant (extension of findings; see Article 25.5)

(c) other:

(i) linked action issues: not applicable

(ii) additional GA suspension grounds: not applicable.

31.2.2 Procedure

Before suspending the grant, the granting authority will send a **pre-information letter** to the coordinator:

- formally notifying the intention to suspend the grant and the reasons why and
- requesting observations within 30 days of receiving notification.

If the granting authority does not receive observations or decides to pursue the procedure despite the observations it has received, it will confirm the suspension (**confirmation letter**). Otherwise, it will formally notify that the procedure is discontinued.

The suspension will **take effect** the day after the confirmation notification is sent (or on a later date specified in the notification).

Once the conditions for resuming implementation of the action are met, the granting authority will formally notify the coordinator a **lifting of suspension letter**, in which it will set the suspension end date and invite the coordinator to request an amendment of the Agreement to set the resumption date (one day after suspension end date), extend the duration and make other changes necessary to adapt the action to the new situation (see Article 39) — unless the grant has been terminated (see Article 32). The suspension will be **lifted** with effect from the suspension end date set out in the lifting of suspension letter. This date may be before the date on which the letter is sent.

During the suspension, no prefinancing will be paid. Moreover, no work may be done. Ongoing work packages must be interrupted and no new work packages may be started.

The beneficiaries may not claim damages due to suspension by the granting authority (see Article 33).

Grant suspension does not affect the granting authority's right to terminate the grant or a beneficiary (see Article 32) or reduce the grant (see Article 28).

ARTICLE 32 — GRANT AGREEMENT OR BENEFICIARY TERMINATION

32.1 Consortium-requested GA termination

32.1.1 Conditions and procedure

The beneficiaries may request the termination of the grant.

The coordinator must submit a request for **amendment** (see Article 39), with:

- the reasons why

- the date the consortium ends work on the action ('end of work date') and
- the date the termination takes effect ('termination date'); this date must be after the date of the submission of the amendment request.

The termination will **take effect** on the termination date specified in the amendment.

If no reasons are given or if the granting authority considers the reasons do not justify termination, it may consider the grant terminated improperly.

32.1.2 Effects

The coordinator must — within 60 days from when termination takes effect — submit a **periodic report** (for the open reporting period until termination).

The granting authority will calculate the final grant amount and final payment on the basis of the report submitted and taking into account the lump sum contributions for activities implemented before the end of work date (see Article 22). Partial lump sum contributions for work packages that were not completed (e.g. due to technical reasons) may exceptionally be taken into account.

If the granting authority does not receive the report within the deadline, only lump sum contributions which are included in an approved periodic report will be taken into account (no contributions if no periodic report was ever approved).

Improper termination may lead to a grant reduction (see Article 28).

After termination, the beneficiaries' obligations (in particular Articles 13 (confidentiality and security), 16 (IPR), 17 (communication, dissemination and visibility), 21 (reporting), 25 (checks, reviews, audits and investigations), 26 (impact evaluation), 27 (rejections), 28 (grant reduction) and 42 (assignment of claims)) continue to apply.

32.2 Consortium-requested beneficiary termination

32.2.1 Conditions and procedure

The coordinator may request the termination of the participation of one or more beneficiaries, on request of the beneficiary concerned or on behalf of the other beneficiaries.

The coordinator must submit a request for **amendment** (see Article 39), with:

- the reasons why
- the opinion of the beneficiary concerned (or proof that this opinion has been requested in writing)
- the date the beneficiary ends work on the action ('end of work date')
- the date the termination takes effect ('termination date'); this date must be after the date of the submission of the amendment request.

If the termination concerns the coordinator and is done without its agreement, the amendment request must be submitted by another beneficiary (acting on behalf of the consortium).

The termination will **take effect** on the termination date specified in the amendment.

If no information is given or if the granting authority considers that the reasons do not justify termination, it may consider the beneficiary to have been terminated improperly.

32.2.2 Effects

The coordinator must — within 60 days from when termination takes effect — submit:

(i) a **report on the distribution of payments** to the beneficiary concerned

(ii) a **termination report** from the beneficiary concerned, for the open reporting period until termination, containing an overview of the progress of the work

(iii) a second **request for amendment** (see Article 39) with other amendments needed (e.g. reallocation of the tasks and the estimated budget of the terminated beneficiary; addition of a new beneficiary to replace the terminated beneficiary; change of coordinator, etc.).

The granting authority will calculate the amount due to the beneficiary on the basis of the reports submitted in previous interim payments (i.e. beneficiary's lump sum contributions for completed and approved work packages).

Lump sum contributions for ongoing/not yet completed work packages will have to be included in the periodic report for the next reporting periods when those work packages have been completed.

If the granting authority does not receive the report on the distribution of payments within the deadline, it will consider that:

- the coordinator did not distribute any payment to the beneficiary concerned and that
- the beneficiary concerned must not repay any amount to the coordinator.

If the second request for amendment is accepted by the granting authority, the Agreement is **amended** to introduce the necessary changes (see Article 39).

If the second request for amendment is rejected by the granting authority (because it calls into question the decision awarding the grant or breaches the principle of equal treatment of applicants), the grant may be terminated (see Article 32).

Improper termination may lead to a reduction of the grant (see Article 31) or grant termination (see Article 32).

After termination, the concerned beneficiary's obligations (in particular Articles 13 (confidentiality and security), 16 (IPR), 17 (communication, dissemination and visibility), 21 (reporting), 25 (checks, reviews, audits and investigations), 26 (impact evaluation), 27 (rejections), 28 (grant reduction) and 42 (assignment of claims)) continue to apply.

32.3 EU-initiated GA or beneficiary termination

32.3.1 Conditions

The granting authority may terminate the grant or the participation of one or more beneficiaries, if:

(a) one or more beneficiaries do not accede to the Agreement (see Article 40)

(b) a change to the action or the legal, financial, technical, organisational or ownership situation of a beneficiary is likely to substantially affect the implementation of the action or calls into question the decision to award the grant (including changes linked to one of the exclusion grounds listed in the declaration of honour)

(c) following termination of one or more beneficiaries, the necessary changes to the Agreement (and their impact on the action) would call into question the decision awarding the grant or breach the principle of equal treatment of applicants

(d) implementation of the action has become impossible or the changes necessary for its continuation would call into question the decision awarding the grant or breach the principle of equal treatment of applicants

(e) a beneficiary (or person with unlimited liability for its debts) is subject to bankruptcy proceedings or similar (including insolvency, winding-up, administration by a liquidator or court, arrangement with creditors, suspension of business activities, etc.)

(f) a beneficiary (or person with unlimited liability for its debts) is in breach of social security or tax obligations

(g) a beneficiary (or person having powers of representation, decision-making or control, or person essential for the award/implementation of the grant) has been found guilty of grave professional misconduct

(h) a beneficiary (or person having powers of representation, decision-making or control, or person essential for the award/implementation of the grant) has committed fraud, corruption, or is involved in a criminal organisation, money laundering, terrorism-related crimes (including terrorism financing), child labour or human trafficking

(i) a beneficiary (or person having powers of representation, decision-making or control, or person essential for the award/implementation of the grant) was created under a different jurisdiction with the intent to circumvent fiscal, social or other legal obligations in the country of origin (or created another entity with this purpose)

(j) a beneficiary (or person having powers of representation, decision-making or control, or person essential for the award/implementation of the grant) has committed:

  (i) substantial errors, irregularities or fraud or

  (ii) serious breach of obligations under this Agreement or during its award (including improper implementation of the action, non-compliance with the call conditions, submission of false information, failure to provide required information, breach of ethics or security rules (if applicable), etc.)

(k) a beneficiary (or person having powers of representation, decision-making or control, or person essential for the award/implementation of the grant) has committed — in other EU grants awarded to it under similar conditions — systemic or recurrent errors, irregularities, fraud or serious breach of obligations that have a material impact on this grant (extension of findings; see Article 25.5)

(l) despite a specific request by the granting authority, a beneficiary does not request — through the coordinator — an amendment to the Agreement to end the participation of one of its affiliated entities or associated partners that is in one of the situations under points (d), (f), (e), (g), (h), (i) or (j) and to reallocate its tasks, or

(m) other:

(i) linked action issues: not applicable

(ii) additional GA termination grounds: not applicable.

32.3.2 Procedure

Before terminating the grant or participation of one or more beneficiaries, the granting authority will send **a pre-information letter** to the coordinator or beneficiary concerned:

- formally notifying the intention to terminate and the reasons why and
- requesting observations within 30 days of receiving notification.

If the granting authority does not receive observations or decides to pursue the procedure despite the observations it has received, it will confirm the termination and the date it will take effect (**confirmation letter**). Otherwise, it will formally notify that the procedure is discontinued.

For beneficiary terminations, the granting authority will — at the end of the procedure — also inform the coordinator.

The termination will **take effect** the day after the confirmation notification is sent (or on a later date specified in the notification; 'termination date').

32.3.3 Effects

(a) for **GA termination**:

The coordinator must — within 60 days from when termination takes effect — submit a **periodic report** (for the last open reporting period until termination).

The granting authority will calculate the final grant amount and final payment on the basis of the report submitted and taking into account the lump sum contributions for activities implemented before termination takes effect (see Article 22). Partial lump sum contributions for work packages that were not completed (e.g. due to technical reasons) may exceptionally be taken into account.

If the grant is terminated for breach of the obligation to submit reports, the coordinator may not submit any report after termination.

If the granting authority does not receive the report within the deadline, only lump sum contributions which are included in an approved periodic report will be taken into account (no contributions if no periodic report was ever approved).

Termination does not affect the granting authority's right to reduce the grant (see Article 28) or to impose administrative sanctions (see Article 34).

The beneficiaries may not claim damages due to termination by the granting authority (see Article 33).

After termination, the beneficiaries' obligations (in particular Articles 13 (confidentiality and security), 16 (IPR), 17 (communication, dissemination and visibility), 21 (reporting), 25 (checks, reviews, audits and investigations), 26 (impact evaluation), 27 (rejections), 28 (grant reduction) and 42 (assignment of claims)) continue to apply.

(b) for **beneficiary termination**:

The coordinator must — within 60 days from when termination takes effect — submit:

(i) a **report on the distribution of payments** to the beneficiary concerned

(ii) a **termination report** from the beneficiary concerned, for the open reporting period until termination, containing an overview of the progress of the work

(iii) a **request for amendment** (see Article 39) with any amendments needed (e.g. reallocation of the tasks and the estimated budget of the terminated beneficiary; addition of a new beneficiary to replace the terminated beneficiary; change of coordinator, etc.).

The granting authority will calculate the amount due to the beneficiary on the basis of the reports submitted in previous interim payments (i.e. beneficiary's lump sum contributions for completed and approved work packages).

Lump sum contributions for ongoing/not yet completed work packages will have to be included in the periodic report for the next reporting periods when those work packages have been completed.

If the granting authority does not receive the report on the distribution of payments within the deadline, it will consider that:

- the coordinator did not distribute any payment to the beneficiary concerned and that
- the beneficiary concerned must not repay any amount to the coordinator.

If the request for amendment is accepted by the granting authority, the Agreement is **amended** to introduce the necessary changes (see Article 39).

If the request for amendment is rejected by the granting authority (because it calls into question the decision awarding the grant or breaches the principle of equal treatment of applicants), the grant may be terminated (see Article 32).

After termination, the concerned beneficiary's obligations (in particular Articles 13 (confidentiality and security), 16 (IPR), 17 (communication, dissemination and visibility), 21 (reporting), 25 (checks, reviews, audits and investigations), 26 (impact evaluation), 27 (rejections), 28 (grant reduction) and 42 (assignment of claims)) continue to apply.

SECTION 3 OTHER CONSEQUENCES: DAMAGES AND ADMINISTRATIVE SANCTIONS

ARTICLE 33 — DAMAGES

33.1 Liability of the granting authority

The granting authority cannot be held liable for any damage caused to the beneficiaries or to third parties as a consequence of the implementation of the Agreement, including for gross negligence.

The granting authority cannot be held liable for any damage caused by any of the beneficiaries or other participants involved in the action, as a consequence of the implementation of the Agreement.

33.2 Liability of the beneficiaries

The beneficiaries must compensate the granting authority for any damage it sustains as a result of the implementation of the action or because the action was not implemented in full compliance with the Agreement, provided that it was caused by gross negligence or wilful act.

The liability does not extend to indirect or consequential losses or similar damage (such as loss of profit, loss of revenue or loss of contracts), provided such damage was not caused by wilful act or by a breach of confidentiality.

ARTICLE 34 — ADMINISTRATIVE SANCTIONS AND OTHER MEASURES

Nothing in this Agreement may be construed as preventing the adoption of administrative sanctions (i.e. exclusion from EU award procedures and/or financial penalties) or other public law measures, in addition or as an alternative to the contractual measures provided under this Agreement (see, for instance, Articles 135 to 145 EU Financial Regulation 2018/1046 and Articles 4 and 7 of Regulation 2988/95[18]).

SECTION 4 FORCE MAJEURE

ARTICLE 35 — FORCE MAJEURE

A party prevented by force majeure from fulfilling its obligations under the Agreement cannot be considered in breach of them.

‘Force majeure’ means any situation or event that:

- prevents either party from fulfilling their obligations under the Agreement,
- was unforeseeable, exceptional situation and beyond the parties’ control,
- was not due to error or negligence on their part (or on the part of other participants involved in the action), and
- proves to be inevitable in spite of exercising all due diligence.

Any situation constituting force majeure must be formally notified to the other party without delay, stating the nature, likely duration and foreseeable effects.

[18] Council Regulation (EC, Euratom) No 2988/95 of 18 December 1995 on the protection of the European Communities financial interests (OJ L 312, 23.12.1995, p. 1).

The parties must immediately take all the necessary steps to limit any damage due to force majeure and do their best to resume implementation of the action as soon as possible.

CHAPTER 6 FINAL PROVISIONS

ARTICLE 36 — COMMUNICATION BETWEEN THE PARTIES

36.1 Forms and means of communication — Electronic management

EU grants are managed fully electronically through the EU Funding & Tenders Portal ('Portal').

All communications must be made electronically through the Portal in accordance with the Portal Terms and Conditions and using the forms and templates provided there (except if explicitly instructed otherwise by the granting authority).

Communications must be made in writing and clearly identify the grant agreement (project number and acronym).

Communications must be made by persons authorised according to the Portal Terms and Conditions. For naming the authorised persons, each beneficiary must have designated — before the signature of this Agreement — a 'legal entity appointed representative (LEAR)'. The role and tasks of the LEAR are stipulated in their appointment letter (see Portal Terms and Conditions).

If the electronic exchange system is temporarily unavailable, instructions will be given on the Portal.

36.2 Date of communication

The sending date for communications made through the Portal will be the date and time of sending, as indicated by the time logs.

The receiving date for communications made through the Portal will be the date and time the communication is accessed, as indicated by the time logs. Formal notifications that have not been accessed within 10 days after sending, will be considered to have been accessed (see Portal Terms and Conditions).

If a communication is exceptionally made on paper (by e-mail or postal service), general principles apply (i.e. date of sending/receipt). Formal notifications by registered post with proof of delivery will be considered to have been received either on the delivery date registered by the postal service or the deadline for collection at the post office.

If the electronic exchange system is temporarily unavailable, the sending party cannot be considered in breach of its obligation to send a communication within a specified deadline.

36.3 Addresses for communication

The Portal can be accessed via the Europa website.

The address for paper communications to the granting authority (if exceptionally allowed) is the official mailing address indicated on its website.

For beneficiaries, it is the legal address specified in the Portal Participant Register.

ARTICLE 37 — INTERPRETATION OF THE AGREEMENT

The provisions in the Data Sheet take precedence over the rest of the Terms and Conditions of the Agreement.

Annex 5 takes precedence over the Terms and Conditions.

The Terms and Conditions take precedence over the Annexes other than Annex 5.

Annex 2 takes precedence over Annex 1.

ARTICLE 38 — CALCULATION OF PERIODS AND DEADLINES

In accordance with Regulation No 1182/71[19], periods expressed in days, months or years are calculated from the moment the triggering event occurs.

The day during which that event occurs is not considered as falling within the period.

'Days' means calendar days, not working days.

ARTICLE 39 — AMENDMENTS

39.1 Conditions

The Agreement may be amended, unless the amendment entails changes to the Agreement which would call into question the decision awarding the grant or breach the principle of equal treatment of applicants.

Amendments may be requested by any of the parties.

39.2 Procedure

The party requesting an amendment must submit a request for amendment signed directly in the Portal Amendment tool.

The coordinator submits and receives requests for amendment on behalf of the beneficiaries (see Annex 3). If a change of coordinator is requested without its agreement, the submission must be done by another beneficiary (acting on behalf of the other beneficiaries).

The request for amendment must include:

- the reasons why
- the appropriate supporting documents and
- for a change of coordinator without its agreement: the opinion of the coordinator (or proof that this opinion has been requested in writing).

The granting authority may request additional information.

[19] Regulation (EEC, Euratom) No 1182/71 of the Council of 3 June 1971 determining the rules applicable to periods, dates and time-limits (OJ L 124, 8/6/1971, p. 1).

If the party receiving the request agrees, it must sign the amendment in the tool within 45 days of receiving notification (or any additional information the granting authority has requested). If it does not agree, it must formally notify its disagreement within the same deadline. The deadline may be extended, if necessary for the assessment of the request. If no notification is received within the deadline, the request is considered to have been rejected.

An amendment **enters into force** on the day of the signature of the receiving party.

An amendment **takes effect** on the date of entry into force or other date specified in the amendment.

ARTICLE 40 — ACCESSION AND ADDITION OF NEW BENEFICIARIES

40.1 Accession of the beneficiaries mentioned in the Preamble

The beneficiaries which are not coordinator must accede to the grant by signing the accession form (see Annex 3) directly in the Portal Grant Preparation tool, within 30 days after the entry into force of the Agreement (see Article 44).

They will assume the rights and obligations under the Agreement with effect from the date of its entry into force (see Article 44).

If a beneficiary does not accede to the grant within the above deadline, the coordinator must — within 30 days — request an amendment (see Article 39) to terminate the beneficiary and make any changes necessary to ensure proper implementation of the action. This does not affect the granting authority's right to terminate the grant (see Article 32).

40.2 Addition of new beneficiaries

In justified cases, the beneficiaries may request the addition of a new beneficiary.

For this purpose, the coordinator must submit a request for amendment in accordance with Article 39. It must include an accession form (see Annex 3) signed by the new beneficiary directly in the Portal Amendment tool.

New beneficiaries will assume the rights and obligations under the Agreement with effect from the date of their accession specified in the accession form (see Annex 3).

Additions are also possible in mono-beneficiary grants.

ARTICLE 41 — TRANSFER OF THE AGREEMENT

In justified cases, the beneficiary of a mono-beneficiary grant may request the transfer of the grant to a new beneficiary, provided that this would not call into question the decision awarding the grant or breach the principle of equal treatment of applicants.

The beneficiary must submit a request for **amendment** (see Article 39), with

- the reasons why
- the accession form (see Annex 3) signed by the new beneficiary directly in the Portal Amendment tool and

- additional supporting documents (if required by the granting authority).

The new beneficiary will assume the rights and obligations under the Agreement with effect from the date of accession specified in the accession form (see Annex 3).

ARTICLE 42 — ASSIGNMENTS OF CLAIMS FOR PAYMENT AGAINST THE GRANTING AUTHORITY

The beneficiaries may not assign any of their claims for payment against the granting authority to any third party, except if expressly approved in writing by the granting authority on the basis of a reasoned, written request by the coordinator (on behalf of the beneficiary concerned).

If the granting authority has not accepted the assignment or if the terms of it are not observed, the assignment will have no effect on it.

In no circumstances will an assignment release the beneficiaries from their obligations towards the granting authority.

ARTICLE 43 — APPLICABLE LAW AND SETTLEMENT OF DISPUTES

43.1 Applicable law

The Agreement is governed by the applicable EU law, supplemented if necessary by the law of Belgium.

Special rules may apply for beneficiaries which are international organisations (if any; see Data Sheet, Point 5).

43.2 Dispute settlement

If a dispute concerns the interpretation, application or validity of the Agreement, the parties must bring action before the EU General Court — or, on appeal, the EU Court of Justice — under Article 272 of the Treaty on the Functioning of the EU (TFEU).

For non-EU beneficiaries (if any), such disputes must be brought before the courts of Brussels, Belgium — unless an international agreement provides for the enforceability of EU court judgements.

For beneficiaries with arbitration as special dispute settlement forum (if any; see Data Sheet, Point 5), the dispute will — in the absence of an amicable settlement — be settled in accordance with the Rules for Arbitration published on the Portal.

If a dispute concerns administrative sanctions, offsetting or an enforceable decision under Article 299 TFEU (see Articles 22 and 34), the beneficiaries must bring action before the General Court — or, on appeal, the Court of Justice — under Article 263 TFEU.

For grants where the granting authority is an EU executive agency (see Preamble), actions against offsetting and enforceable decisions must be brought against the European Commission (not against the granting authority; see also Article 22).

ARTICLE 44 — ENTRY INTO FORCE

The Agreement will enter into force on the day of signature by the granting authority or the coordinator, depending on which is later.

SIGNATURES

For the coordinator

Lina Uribe with ECAS id n00gk7h8 signed in the Participant Portal on 27/11/2024 at 21:31:08 (transaction id SigId-136701-Q6wHLPay7lZInIzIeNlN1zlXRTzwjojr3uxyUDpjzLaraZHVYFnXoiNd8fQJVjrqiFkPVvszd1FQDrQ1aiPGkqA-rS0vSrmBGYCzv7Kvwzf0JpW-2cNk3t53IOBddr7zhNAqiPfCQ2T0mZR5TkQzcj2J65uFwyDgi1WqMe4YGXEniFVAazJDiZYA6VGVDEBV99P0mxW). Timestamp by third party at 2024.11.27 21:31:12 CET

For the granting authority

Signed by Bodo RICHTER with ECAS id richtbo as an authorised representative on 27-11-2024 21:52:42 (transaction id SigId-136814-ELjgo1TSCUPL4b2e3d4pOWnLC7uy5aMCERV5hYfhQFVGQ6T88wq49TOygWv9bDkYYwtP6nyLOCenxxkwBswzGO-rS0vSrmBGYCzv7Kvwzf0JpW-lokYdUm3a33NlCnpROMxpsTx51pQggqzHhNvGTrBZvsWMFsS6FtwdiFLZruupxigqzVPs5oUFBpJJfYgqa3Y1zm) 2024.11.27 21:52:45 CET

ANNEX 1

Erasmus+ (ERASMUS+)

Description of the action (DoA)

Part A

Part B

DESCRIPTION OF THE ACTION (PART A)

COVER PAGE

Part A of the Description of the Action (DoA) must be completed directly on the Portal Grant Preparation screens.

PROJECT *Grant Preparation (General Information screen) — Enter the info.*	
Project number:	101179251
Project name:	E-Latin American digital huB for OpeN Growing cOmmunities in physics (EL-BONGO physics)
Project acronym:	EL-BONGO
Call:	ERASMUS-EDU-2024-CBHE
Topic:	ERASMUS-EDU-2024-CBHE-STRAND-2
Type of action:	ERASMUS-LS
Service:	EACEA/A/04
Project starting date:	first day of the month following the entry into force date
Project duration:	36 months

TABLE OF CONTENTS

PROJECT SUMMARY

Project summary

Grant Preparation (General Information screen) — Provide an overall description of your project (including context and overall objectives, planned activities and main achievements, and expected results and impacts (on target groups, change procedures, capacities, innovation etc)). This summary should give readers a clear idea of what your project is about.

Use the project summary from your proposal.

The EL-BONGO physics project aims to revolutionize higher education in Latin America through digital transformation, emphasizing virtual research and learning communities, and open science practices. It builds upon the success of the LA-CoNGA physics program, seeking to establish a network of research communities across Central America and the Andean region, involving 18 Latin American and European universities from nine countries. The project collaborates with prominent research centers, industrial partners, and multilateral organisations.
Key objectives include promoting collaboration through digital platforms, promoting digital education and open science, and developing practical skills in digital fabrication. The project also focuses on implementing a hybrid Bologna Master Program. Four Physics Research and Learning Communities will be established in High Energy Physics, Space Weather, Seismology and Earth Hazards, and Artificial Intelligence. Innovative digital learning methods, research internships, and social impact activities like hackathons will enhance educational experiences and bridge academic research with real-world problems.
The project also aims to establish a collaborative Science Gateway for science and education, utilizing advanced digital infrastructure to overcome geographical and socio-economic barriers. The Digital Science Gateway Hub will provide access to educational resources, support networking and collaboration, and enhance the visibility and dissemination of research findings. The project's work plan is structured into six work packages covering preparation, development of tools, training, quality assurance, dissemination, and project management, with specific responsibilities allocated to participating institutions. Universidad Antonio Nariño, in Colombia, will lead the project along with the collaboration of Université Paris Cité as co-pi, facilitating knowledge transfer and collaboration between Europe and Latin America.

LIST OF PARTICIPANTS

PARTICIPANTS

Grant Preparation (Beneficiaries screen) — Enter the info.

Number	Role	Short name	Legal name	Country	PIC
1	COO	UAN	UNIVERSIDAD ANTONIO NARINO	CO	998504033
2	BEN	UIS	Universidad Industrial de Santander	CO	997938038
3	BEN	UNAB	UNIVERSIDAD AUTONOMA DE BUCARAMANGA	CO	924353741
4	BEN	ESPOCH	ESCUELA SUPERIOR POLITECNICA DE CHIMBORAZO	EC	934215731
5	BEN	USFQ	UNIVERSIDAD SAN FRANCISCO DE QUITO	EC	938699847
6	BEN	USAL	UNIVERSIDAD DE SALAMANCA	ES	999846610
7	BEN	INSA LYON	INSTITUT NATIONAL DES SCIENCES APPLIQUEES DE LYON	FR	999886089
8	BEN	UPCité	UNIVERSITE PARIS CITE	FR	897691060
9	BEN	UT3	UNIVERSITE PAUL SABATIER TOULOUSE III	FR	999851169
10	BEN	USAC	UNIVERSIDAD SAN CARLOS DE GUATEMALA	GT	997466618

PARTICIPANTS

Grant Preparation (Beneficiaries screen) — Enter the info.

Number	Role	Short name	Legal name	Country	PIC
11	BEN	UNAH	UNIVERSIDAD NACIONAL AUTONOMA DE HONDURAS	HN	952808206
12	BEN	UNMSM	UNIVERSIDAD NACIONAL MAYOR DE SAN MARCOS	PE	999453081
13	BEN	UES	UNIVERSIDAD DE EL SALVADOR	SV	924681601
14	BEN	UFG	UNIVERSIDAD FRANCISCO GAVIDIA	SV	879241757
15	BEN	USB	UNIVERSIDAD SIMON BOLIVAR	VE	997939590
16	BEN	UCV	UNIVERSIDAD CENTRAL DE VENEZUELA	VE	998697257
17	AP	CERN	ORGANISATION EUROPEENNE POUR LA RECHERCHE NUCLEAIRE	CH	999988133
18	AP	CNRS	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE CNRS	FR	999997930
19	AP	ICTP	The Abdus Salam International Centre for Theoretical Physics	IT	876279280
20	AP	CIEMAT	CENTRO DE INVESTIGACIONES ENERGETICAS MEDIOAMBIENTALES Y TECNOLOGICAS	ES	999614877
21	AP	RedCLARA	COOPERACION LATINOAMERICANA DE REDES AVANZADAS	UY	999646208
22	AP	CEDIA	Corporación Ecuatoriana para el Desarrollo de la investigación y la Academia	EC	995818006
23	AP	frontier x	frontier x	CO	906607882

LIST OF WORK PACKAGES

Work packages

Grant Preparation (Work Packages screen) — Enter the info.

Work Package No	Work Package name	Lead Beneficiary	Effort (Person-Months)	Start Month	End Month	Deliverables
WP1	Preparation	6 - USAL	5.00	1	7	D1.1 – Report on RLC
WP2	Development	12 - UNMSM	21.00	5	24	D2.1 – FABLabs from A to Z D2.2 – EL-BONGO physics Science Gateway D2.3 – Repository for datasets, experimental workflows, and computational tools D2.4 – Report on VRLC engagement across the network for FabLab tools & skilss
WP3	Training and Education	16 - UCV	53.00	13	36	D3.1 – Ecosystem training program report D3.2 – Report on workshops and training sessions on digital skills
WP4	Quality Plan	2 - UIS	7.00	3	36	D4.1 – Mid-Term Report D4.2 – First cohort of survey for staff and students
WP5	Dissemination, Awareness, and Exploitation	3 - UNAB	11.00	1	36	D5.1 – Communication Plan D5.2 – Web site of the project EL-BONGO
WP6	Management	1 - UAN	23.00	1	36	D6.1 – Quality assurance mid-term Report (Management)

Work package WP1 – Preparation

Work Package Number	WP1	Lead Beneficiary	6 - USAL
Work Package Name	Preparation		
Start Month	1	End Month	7

Objectives
Preparing the groundwork for the EL-BONGO physics project by establishing functional research communities, Developing a comprehensive and tailored educational syllabus for each RLC, Enhancing international collaboration and project management skills of the consortium.

Description
Building RLC Communities Define the Community Syllabus and academic life Create an IRO (International Relations Office) Community Establish the IRO training program (content, methodology and training responsible)

Work package WP2 – Development

Work Package Number	WP2	Lead Beneficiary	12 - UNMSM
Work Package Name	Development		
Start Month	5	End Month	24

Objectives
Develop a FABLab Network: Determining Community Equipment Needs. Coordinating the Procurement and Installation of each FABLab. Build the RLC ecosystem by fostering synergies and collaboration among communities, Organizing Inter-Community Activities, and training teachers Develop a Science Gateway to harvest and disseminate all the contents produced by the RLC ecosystem. Creating a space within the RLC ecosystem

Description
FABLab Setup Integration of Instrumentation Course Online Workshops and Training Sessions Operational FABLab Network Inter-Community Activities: Synergy, and Collaboration Opportunities Science Gateway requirements, planning and design Science Gateway Development Process, Testing, Stressing, and Quality Assurance

Work package WP3 – Training and Education

Work Package Number	WP3	Lead Beneficiary	16 - UCV
Work Package Name	Training and Education		
Start Month	13	End Month	36

Objectives
Implement two student cohorts for each community. Schedule the corresponding modules for the training community courses (disciplinary and transversal) Develop internship plans and organise various academic activities, including seminars, workshops, conferences, hackathons and International schools.

Description
Cohort-Based Learning Structure Internship Program Virtual International School Academic Extracurricular Activities

Work package WP4 – Quality Plan

Work Package Number	WP4	Lead Beneficiary	2 - UIS
Work Package Name	Quality Plan		
Start Month	3	End Month	36

Objectives
Develop the Quality Assurance Plan for the project, the Code of Conduct, the Gender Policy, and Data Management Plan. Develop regular evaluations to follow up on the evolution of the different WP task and feedback mechanisms

Description
Develop and implement a General Quality Assurance Plan Formulate a Code of Conduct and a Gender Policy to guide the behaviour and promote inclusivity within the project Create a Data Management Plan Design and implement online questionnaires to collect feedback from current and former students about the quality of their training Design and conduct staff surveys to evaluate teaching resources and facilities Communication Effectiveness: post-publication monitor social media and website interactions (the project, communities and Science Gateway)

Work package WP5 – Dissemination, Awareness, and Exploitation

Work Package Number	WP5	Lead Beneficiary	3 - UNAB
Work Package Name	Dissemination, Awareness, and Exploitation		
Start Month	1	End Month	36

Objectives
- Enhancing Project Visibility and Outreach - Promoting Knowledge Dissemination and Engagement - Boosting the Importance of Open Science and Digital Education

Description
Communication Plan Website and social network profile

Periodic information feeds in social networks and the website Communication support for other WPs

Work package WP6 – Management

Work Package Number	WP6	**Lead Beneficiary**	1 - UAN
Work Package Name	Management		
Start Month	1	**End Month**	36

Objectives
- Implementing robust and user-friendly communication mechanisms to simplify seamless interaction among consortium partners. - Establishing and maintaining detailed project timelines to ensure timely completion of each phase and project objectives. - Providing comprehensive guidelines for consistent and accurate internal and external reporting, ensuring all Institutional representatives are informed about progress and challenges. - Monitor and manage the project budget to ensure all activities are cost-effective and financial resources are optimally employed.

Description
EL-BONGO physics Kick-off meeting WP leader meetings Executive Board Meetings External Advisory Meetings Midterm meeting and report

STAFF EFFORT

Staff effort per participant

Grant Preparation (Work packages - Effort screen) — Enter the info.

Participant	WP1	WP2	WP3	WP4	WP5	WP6	Total Person-Months
1 - UAN	2.00	6.00	7.00	3.00	5.00	8.00	31.00
2 - UIS	1.00	3.00	4.00	1.00	1.00	1.00	11.00
3 - UNAB		1.00	3.00		4.00	1.00	9.00
4 - ESPOCH		1.00	3.00			1.00	5.00
5 - USFQ		1.00	3.00		1.00	1.00	6.00
6 - USAL	1.00		3.00	1.00		1.00	6.00
7 - INSA LYON			2.00			1.00	3.00
8 - UPCité		1.00	4.00	1.00		1.00	7.00
9 - UT3			2.00	1.00		1.00	4.00
10 - USAC	1.00	1.00	3.00			1.00	6.00
11 - UNAH		1.00	3.00			1.00	5.00
12 - UNMSM		2.00	3.00			1.00	6.00
13 - UES		1.00	3.00			1.00	5.00
14 - UFG		1.00	2.00			1.00	4.00
15 - USB		1.00	3.00			1.00	5.00
16 - UCV		1.00	5.00			1.00	7.00
Total Person-Months	5.00	21.00	53.00	7.00	11.00	23.00	120.00

LIST OF DELIVERABLES

Deliverables

Grant Preparation (Deliverables screen) — Enter the info.

The labels used mean:

Public — fully open (automatically posted online)
Sensitive — limited under the conditions of the Grant Agreement
EU classified —RESTREINT-UE/EU-RESTRICTED, CONFIDENTIEL-UE/EU-CONFIDENTIAL, SECRET-UE/EU-SECRET under Decision 2015/444

Deliverable No	Deliverable Name	Work Package No	Lead Beneficiary	Type	Dissemination Level	Due Date (month)
D1.1	Report on RLC	WP1	6 - USAL	R — Document, report	SEN - Sensitive	6
D2.1	FABLabs from A to Z	WP2	12 - UNMSM	R — Document, report	SEN - Sensitive	20
D2.2	EL-BONGO physics Science Gateway	WP2	2 - UIS	R — Document, report	SEN - Sensitive	24
D2.3	Repository for datasets, experimental workflows, and computational tools	WP2	12 - UNMSM	DATA — data sets, microdata, etc	SEN - Sensitive	24
D2.4	Report on VRLC engagement across the network for FabLab tools & skilss	WP2	6 - USAL	R — Document, report	SEN - Sensitive	24
D3.1	Ecosystem training program report	WP3	16 - UCV	R — Document, report	SEN - Sensitive	36
D3.2	Report on workshops and training sessions on digital skills	WP3	16 - UCV	R — Document, report	SEN - Sensitive	32
D4.1	Mid-Term Report	WP4	1 - UAN	R — Document, report	SEN - Sensitive	18
D4.2	First cohort of survey for staff and students	WP4	10 - USAC	R — Document, report	SEN - Sensitive	25
D5.1	Communication Plan	WP5	3 - UNAB	R — Document, report	SEN - Sensitive	3
D5.2	Web site of the project EL-BONGO	WP5	3 - UNAB	DEC —Websites, patent filings, videos, etc	SEN - Sensitive	6

Deliverables

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EU classified —RESTREINT-UE/EU-RESTRICTED, CONFIDENTIEL-UE/EU-CONFIDENTIAL, SECRET-UE/EU-SECRET under Decision 2015/444

Deliverable No	Deliverable Name	Work Package No	Lead Beneficiary	Type	Dissemination Level	Due Date (month)
D6.1	Quality assurance mid-term Report (Management)	WP6	1 - UAN	R — Document, report	SEN - Sensitive	18

Deliverable D1.1 – Report on RLC

Deliverable Number	D1.1	Lead Beneficiary	6 - USAL
Deliverable Name	Report on RLC		
Type	R — Document, report	Dissemination Level	SEN - Sensitive
Due Date (month)	6	Work Package No	WP1

Description
A report describing how to implement and operate each RLC: Members, responsible parties, research topics, equipment needed, and training program. It will also include the IRO particular case. Format: electronic doc in a repository. 60-80pg Language: English

Deliverable D2.1 – FABLabs from A to Z

Deliverable Number	D2.1	Lead Beneficiary	12 - UNMSM
Deliverable Name	FABLabs from A to Z		
Type	R — Document, report	Dissemination Level	SEN - Sensitive
Due Date (month)	20	Work Package No	WP2

Description
Specifying the needs for a FABLab installation. Requirements of space, ventilation, power, furniture, space, safety, storage for chemicals and reagents, and data communication infrastructure. The installation and operation of the equipment and network operation Format: electronic doc in a repository. 80-100pg Language: English

Deliverable D2.2 – EL-BONGO physics Science Gateway

Deliverable Number	D2.2	Lead Beneficiary	2 - UIS
Deliverable Name	EL-BONGO physics Science Gateway		
Type	R — Document, report	Dissemination Level	SEN - Sensitive

Due Date (month)	24	Work Package No	WP2

Description
Detailed report including requirements specification, Project Plan and Design Specifications; Documentation, API and Integration; Compliance and Security; Guidelines, Content Curation; Testing and Quality Assurance Plans; Training Materials; Maintenance. Format: electronic doc in a repository. 80-100pg Language: English

Deliverable D2.3 – Repository for datasets, experimental workflows, and computational tools

Deliverable Number	D2.3	Lead Beneficiary	12 - UNMSM
Deliverable Name	Repository for datasets, experimental workflows, and computational tools		
Type	DATA — data sets, microdata, etc	Dissemination Level	SEN - Sensitive
Due Date (month)	24	Work Package No	WP2

Description
Establish an open-access digital repository for datasets, experimental workflows, and computational tools used within EL-BONGO.

Deliverable D2.4 – Report on VRLC engagement across the network for FabLab tools & skilss

Deliverable Number	D2.4	Lead Beneficiary	6 - USAL
Deliverable Name	Report on VRLC engagement across the network for FabLab tools & skilss		
Type	R — Document, report	Dissemination Level	SEN - Sensitive
Due Date (month)	24	Work Package No	WP2

Description
Report on VRLC engagement across the network of partner institutions using digital FabLab tools & skills in Science

Deliverable D3.1 – Ecosystem training program report

Deliverable Number	D3.1	Lead Beneficiary	16 - UCV
Deliverable Name	Ecosystem training program report		
Type	R — Document, report	Dissemination Level	SEN - Sensitive
Due Date (month)	36	Work Package No	WP3

Description
Report describing the two-year operation of the academic program. Include impact statistics from surveys.

Deliverable D3.2 – Report on workshops and training sessions on digital skills

Deliverable Number	D3.2	**Lead Beneficiary**	16 - UCV
Deliverable Name	Report on workshops and training sessions on digital skills		
Type	R — Document, report	**Dissemination Level**	SEN - Sensitive
Due Date (month)	32	**Work Package No**	WP3

Description
Conduct workshops and training sessions on digital skills (e.g., AI, data analysis, big data management) tailored to the needs of physics and related disciplines.

Deliverable D4.1 – Mid-Term Report

Deliverable Number	D4.1	**Lead Beneficiary**	1 - UAN
Deliverable Name	Mid-Term Report		
Type	R — Document, report	**Dissemination Level**	SEN - Sensitive
Due Date (month)	18	**Work Package No**	WP4

Description
An exhaustive report concluding the first year of courses, aimed at assessing the overall quality of the project and identifying improvement for the upcoming year. Format: electronic doc in a repository. 80-100pg Language: English

Deliverable D4.2 – First cohort of survey for staff and students

Deliverable Number	D4.2	**Lead Beneficiary**	10 - USAC
Deliverable Name	First cohort of survey for staff and students		
Type	R — Document, report	**Dissemination Level**	SEN - Sensitive
Due Date (month)	25	**Work Package No**	WP4

Description

Report on the results of the survey of first-cohort including staff and students.

Deliverable D5.1 – Communication Plan

Deliverable Number	D5.1	**Lead Beneficiary**	3 - UNAB
Deliverable Name	Communication Plan		
Type	R — Document, report	**Dissemination Level**	SEN - Sensitive
Due Date (month)	3	**Work Package No**	WP5

Description
Develop a Communication Plan outlining strategies for sharing project information, including visual identity, thematic discourse, spokesperson roles, and progress mechanisms. Communicate objectives, achievements, and social impact to diverse audiences. Format: electronic doc in a repository. 80-100pg Language: English

Deliverable D5.2 – Web site of the project EL-BONGO

Deliverable Number	D5.2	**Lead Beneficiary**	3 - UNAB
Deliverable Name	Web site of the project EL-BONGO		
Type	DEC —Websites, patent filings, videos, etc	**Dissemination Level**	SEN - Sensitive
Due Date (month)	6	**Work Package No**	WP5

Description
The full bilingual (English-Spanish) website of the project.

Deliverable D6.1 – Quality assurance mid-term Report (Management)

Deliverable Number	D6.1	**Lead Beneficiary**	1 - UAN
Deliverable Name	Quality assurance mid-term Report (Management)		
Type	R — Document, report	**Dissemination Level**	SEN - Sensitive
Due Date (month)	18	**Work Package No**	WP6

Description

The midterm report is crucial for assessing progress, identifying challenges, ensuring efficient resource utilisation, and making necessary adjustments to stay on track towards achieving project goals. Format: electronic doc in a repository. 80-100pg Language: English	

LIST OF MILESTONES

Milestones *Grant Preparation (Milestones screen) — Enter the info.*					
Milestone No	**Milestone Name**	**Work Package No**	**Lead Beneficiary**	**Means of Verification**	**Due Date (month)**
1	Researchers trained in MiLAB	WP1	2 - UIS	Number of reseachers/teachers trainned	4
2	RLC website	WP1	10 - USAC	All RLC website available with all information about the community	6
3	Purchase orders	WP2	1 - UAN	Mail sent to the equipment providers	4
4	FABLab Installation	WP2	12 - UNMSM	Pictures of the equipment, videos of its operation	12
5	Science Gateway Beta testing release	WP2	2 - UIS	Web access to the Science Gateway	20
6	The official launch of the Science Gateway	WP2	2 - UIS	Survey opinion among the partners	24
7	Launching First Cohort Community training program	WP3	16 - UCV	Video recording of the event	12
8	Launching Second Cohort Community training program	WP3	16 - UCV	Video recording of the event	24
9	First year of survey for staff and students	WP4	2 - UIS	The results of the surveys and their evaluation	24
10	Second year of survey for staff and students	WP4	2 - UIS	The results of the surveys and their evaluation	36
11	Project Website and social network profile	WP5	3 - UNAB	Access to the project website and social network	3
12	Community Websites and social network profiles	WP5	3 - UNAB	Access to the community websites and social network	6
13	500 post landmark	WP5	3 - UNAB	Access to the community social network profiles	20
14	First EAB meeting	WP6	1 - UAN	Meeting Minutes	12
15	Midterm meeting	WP6	1 - UAN	Meeting Minutes	18
16	Second EAB meeting	WP6	1 - UAN	Meeting Minutes	24

Milestones

Grant Preparation (Milestones screen) — Enter the info.

Milestone No	Milestone Name	Work Package No	Lead Beneficiary	Means of Verification	Due Date (month)
17	Third EAB meeting	WP6	1 - UAN	Meeting Minutes	35

LIST OF CRITICAL RISKS

Critical risks & risk management strategy

Grant Preparation (Critical Risks screen) — Enter the info.

Risk number	Description	Work Package No(s)	Proposed Mitigation Measures
1	Misalignment of Training Programs with Community Needs. Impact: High; Likelihood: Medium	WP1	Conduct thorough needs assessments and continuously dialogue with community members to ensure alignment.
2	Insufficient Engagement from Partner Institutions Impact: Medium; Likelihood: Medium	WP6, WP1	Develop clear communication channels and engagement protocols. Schedule regular meetings and progress reviews with all partners
3	Delays in Training Program development and approval within each community; Impact: Medium; Likelihood: Medium	WP1	Set realistic timelines with buffer periods and assign dedicated teams for curriculum development and approval processes in the communities.
4	Ineffective Community coordination among partner institutions; Impact: High; Likelihood: Medium	WP2, WP3, WP6, WP1	Establish clear communication protocols, assign liaison officers,

Critical risks & risk management strategy

Grant Preparation (Critical Risks screen) — Enter the info.

Risk number	Description	Work Package No(s)	Proposed Mitigation Measures
			and schedule regular coordination meetings.
5	Technical Challenges with MiLAB for the Community Ecosystem and to to implement FABLab network Platforms Impact: High; Likelihood: Low	WP2	Prioritize robust technical support and training for users. Conduct regular maintenance and updates of the platforms. Develop a backup plan for data storage and retrieval.
6	Insufficient Expertise in Developing LA Science HUB; Impact: Medium; Likelihood: Low	WP2	Collaborate with technology experts in RedCLARA and CEDIA. Possibly outsourcing certain aspects and provide staff training in relevant digital tools.
7	Technical Issues with Science Hub Platform; Impact: High; Likelihood: Medium	WP2	Conduct extensive beta testing, have a dedicated IT support team, and develop a robust troubleshooting protocol.
8	Data Security and Privacy Concerns in Science Hub; Impact: High; Likelihood: Low	WP2	Implement state-of-the-art cybersecurity measures and conduct regular data privacy training and compliance checks
9	Changing Academic or Political Landscapes Affecting Collaboration; Impact: High; Likelihood: Low	WP4, WP2, WP3, WP6, WP1, WP5	Develop flexible strategies that can adapt to changes and maintain open lines of communication with all Institutional Representative.
10	Low Engagement or Participation in Training Programs; Impact: Medium; Likelihood: Medium	WP2, WP3, WP6	Implement engaging marketing strategies, incentivise participation, and tailor content to

Critical risks & risk management strategy

Grant Preparation (Critical Risks screen) — Enter the info.

Risk number	Description	Work Package No(s)	Proposed Mitigation Measures
			meet participant interests.
11	Insufficient Capacity to Accommodate All Students in Internship Programs; Impact: Medium; Likelihood: Medium	WP3, WP6	Establish partnerships with additional organisations for internships and create virtual internship opportunities.
12	Ineffective Coordination of Virtual Network School Events; Impact: Medium; Likelihood: Medium	WP3, WP6, WP5	Assign a dedicated event management team, conduct regular planning meetings, and use project management tools.
13	Inconsistent Quality Standards Across Partner Institutions Impact: High; Likelihood: Medium	WP4	Develop and implement a uniform set of quality standards and guidelines. Conduct regular training and workshops to ensure understanding and adherence.
14	Lack of Engagement in Quality Assurance Activities; Impact: Medium; Likelihood: Medium	WP4, WP6	Foster a quality and continuous improvement culture among all Institutional representatives. Recognise and reward contributions to quality enhancements.
15	Inadequate Monitoring and Evaluation Processes Impact: High; Likelihood: Medium	WP4	Establish a robust monitoring and evaluation framework with clear metrics and regular review meetings. Utilise external evaluators for unbiased assessments.
16	Inadequate Reach and Engagement in Dissemination Efforts Impact: High; Likelihood: Medium	WP6, WP5	Develop a multifaceted communication plan that includes digital and traditional media,

Critical risks & risk management strategy

Grant Preparation (Critical Risks screen) — Enter the info.

Risk number	Description	Work Package No(s)	Proposed Mitigation Measures
			community outreach, and stakeholder engagement activities. Utilise analytics to track engagement and adjust strategies accordingly.
17	Miscommunication of Project Achievements and Outcomes Impact: Medium Likelihood: Medium	WP5	Establish clear messaging guidelines, train team members on effective communication, and regularly review public materials for accuracy and clarity.
18	Lack of Media Interest or Coverage Impact: Medium; Likelihood: Low	WP6, WP5	Build relationships with media outlets and leverage social media influencers within the scientific community. Craft compelling narratives that highlight the project's uniqueness and relevance.
19	Over-reliance on Digital Platforms for Dissemination Impact: Low Likelihood: Medium	WP5	Diversify dissemination channels to include workshops, conferences, and print media. Ensure backup communication channels are in place
20	Ineffective Project Coordination and Oversight; Impact: High; Likelihood: Medium	WP6	Appoint experienced project managers, establish clear project governance structures, and hold regular project review meetings.
21	Conflicts within the Consortium** Impact: High; Likelihood: Medium	WP6	Develop a consortium agreement that clearly defines roles, responsibilities, and conflict

Critical risks & risk management strategy *Grant Preparation (Critical Risks screen) — Enter the info.*			
Risk number	**Description**	**Work Package No(s)**	**Proposed Mitigation Measures**
			resolution mechanisms.
22	Inadequate Documentation and Reporting Impact: Medium; Likelihood: Medium	WP6	Implement a centralised documentation system and provide training on reporting requirements and procedures
23	Failure to Meet Milestones and Deliverables Impact: High; Likelihood: Medium	WP6	Establish a detailed project timeline with built-in buffers, conduct frequent progress checks, and adjust plans as necessary.
24	Budget Mismanagement Impact: Hig; Likelihood: Medium	WP6	Enforce strict financial controls, regular budget reviews, and audits. Use project management software for real-time budget tracking.
25	Staff Turnover and Loss of Expertise Impact: Medium; Likelihood: Medium	WP6	Implement a robust human resources plan, including crosstraining, succession planning, and retention strategies.

IMPORTANT NOTICE

What is the Application Form?

The Application Form is the template for EU grant applications; it must be submitted via the EU Funding & Tenders Portal before the call deadline.

The Form consists of 2 parts:

- Part A contains structured administrative information.
- Part B is a narrative, technical description of the project.

The IT system generates part A. It is based on the information entered into the Portal Submission System screens.

Part B must be uploaded in the Submission System as a PDF (+ annexes). The templates to use are available there.

How do I prepare and submit it?

The Application Form must be prepared by the consortium and submitted by a representative. Once submitted, you will receive a confirmation.

Character and **page limits**:

- page limit typically 40 pages for calls for low-value grants (60 000 or below); 120 pages for all other calls (unless otherwise provided for in the Call document/Programme Guide)
- supporting documents can be provided as an annexe and do not count towards the page limit
- minimum font size — Arial 9 points
- page size: A4
- margins (top, bottom, left and right): at least 15 mm (not including headers & footers).

Please abide by the formatting rules. They are NOT a target! Keep your text as concise as possible. Do not use hyperlinks to show information that is an essential part of your application.

⚠ If you attempt to upload an application that exceeds the specified limit, you will receive an automatic warning asking you to shorten and re-upload your application. The excess pages will be made invisible for unshortened applications and thus disregarded by the evaluators.

⚠ **Please do NOT delete any instructions in the document. The overall page limit has been raised to ensure equal treatment of all applicants.**

⚠ This document is tagged. Be careful not to delete the tags; they are needed for the processing.

ADMINISTRATIVE FORMS (PART A)

Part A of the Application Form must be filled out directly in the Portal Submission System screens.

TECHNICAL DESCRIPTION (PART B)

COVER PAGE

Part B of the Application Form must be downloaded from the Portal Submission System, completed, assembled, and re-uploaded as PDF in the system. Page 1 with the grey IMPORTANT NOTICE box should be deleted before uploading.

***Note:** Please carefully read the conditions in the call document/programme guide (for open calls: published on the portal). Pay particular attention to the award criteria; they explain how the application will be evaluated.*

PROJECT	
Project name:	**E-Latin american digital huB for OpeN Growing cOmmunities in physics**
Project acronym:	EL-BONGO physics
Coordinator contact:	[Universidad Antonio Nariño], [UAN]

TABLE OF CONTENTS

The EL-BONGO physics project, focused on the digital transformation of higher education in Latin America, stresses the importance of virtual research and learning communities and open science practices. This project, built on the successes of the LA-CoNGA physics program, aims to create a network of research communities in physics across Central America and the Andean region. This network will involve 16 Latin American and European universities from nine countries. Four universities are from Central America (Guatemala, Honduras and El Salvador), and eight are from Colombia, Ecuador, Perú, and Venezuela. We have four universities from Europe, three from France and one from Spain.

EL-BONGO physics alliance is a robust collaboration involving 30 institutions targeting Central American Universities for their regional significance. It includes 16 beneficiary universities, four from Europe, 11 from Latin America and 13 associated partners (six prominent research centres, three industrial partners and four multilateral organisations).

Key objectives of EL-BONGO include building a network of virtual research and learning communities using digital platforms to foster collaboration among students, educators, researchers, and industry professionals. The project emphasises promoting digital education and open science by integrating advanced digital tools and open-access resources to democratise education and research in physics. Another aspect involves developing practical skills in digital fabrication through FABLab environments and implementing a hybrid Bologna Master Program for research-learning communities, with blockchain technology ensuring transparency and credibility in certificate verification.

The proposal includes building four Physics Research and Learning Communities in a network of Higher Education institutions. These communities focus on High Energy Physics, Space Weather, Seismology and Earth Hazards, and Artificial intelligence and computational Physics Tools. The EL-BONGO's learning environment emphasises innovative digital learning methods centred on community research dynamics, creative ecosystem flexible curricula, and Science Diplomacy through collaboration with the Latin American diaspora. Social impact activities like hackathons and citizen science projects are integrated to enhance educational experiences, foster innovation, promote collaboration, and bridge academic research with real-world problems.

The project also focuses on establishing a collaborative Science Gateway for science and education, enhancing research and training capacities, utilising advanced digital infrastructure, and engaging global communities. The Digital Science Gateway Hub, a crucial project component, is pivotal in overcoming geographical and socio-economic barriers by offering access to educational resources and opportunities. It facilitates personalised learning experiences and supports real-time communication, networking, and academic and research-learning community collaboration. This digital hub also increases visibility and dissemination of research findings, expanding learning and professional career development opportunities.

EL-BONGO physics project's work plan is structured into six work packages (WPs), each with specific objectives and activities. The WPs cover areas such as preparation, development and installation of tools, training and education, quality assurance, dissemination and exploration, and overall project management. The institutional responsibilities within each work package are allocated considering their respective areas of expertise. Universidad Antonio Nariño from Colombia will lead as the Principal Investigator institution, with Université Paris Cité as the Co-Principal Investigator, boosting the transfer of administrative experience from Europe to Latin America.

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PROJECT SUMMARY

Project summary *(in English)*

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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 project relevant 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 problem: Research is inherently craft-based, firmly anchored in the classic master-apprentice tradition and thriving within academic communities. Experts in regions such as the tropical Andes (including Colombia, Ecuador, Peru, and Venezuela) and Central America often work in isolation due to a limited number of colleagues in their respective institutions, tackling smaller-scale issues with restricted resources. However, these regions collectively confront significant challenges, such as seismic and climate hazards, alongside a mutual interest in astroparticle physics and Artificial Intelligence (AI) tools. This scenario stresses the need for a more collaborative and community-focused approach to research in Higher Education Institutions (HEI).

The main objective of EL-BONGO Physics is to establish a network of Research and Learning Communities (RLC)[1] across four subfields of physics. This initiative will introduce a hands-on, research-focused approach within a consortium of 11 graduate physics and computing programs in Central America and the Tropical Andes. The basis of this network will be a modular Master's program aligned with the Bologna standards. A Science Gateway will gather and share digital materials such as publications, software and codes, and datasets created within the research ecosystem. This will ensure adherence to FAIR (Findable, Accessible, Interoperable, and Reusable) principles and enhance the adoption of Open Access policies across these two regions.

learning by doing research community approach: community-centred learning provides a unique environment for teachers and students to work internationally, pursuing a common research goal. The Master's courses will be aligned to tackle particular objectives using professional digital tools (MiLAB platform[2], High-Performance Computing, Data Repositories, and remote access to scientific instruments). For students and early-career researchers, being part of an RLC provides valuable opportunities for hands-on learning through direct involvement in research projects, access to mentorship, and exposure to various scholarly activities. Additionally, when several research communities collaborate, it promotes the cross-pollination of ideas in workshops, seminars, courses, and projects, enhancing practical interdisciplinary research tangibly and collaboratively. It is not just a collection of separate parts; it thrives on the collaborative synergy that emerges from each component's unique contributions. In Figure 1 we sketch the digital products of these RLCs and their interrelations. We have identified four research communities for which this approach appears relevant. They are:

- *High-Energy Physics (HEP)* is an active RLC of researchers who participate actively in international HEP collaborations like ALICE, ATLAS, CMS, and LHCb at CERN and the Deep Underground Neutrino Experiment managed by Fermilab.
- *Space Weather* is an emerging community mainly driven by LAGO[3] Observatory, interested in basic research in Space Weather physics and the technological applications of cosmic rays like muography and soil moisture detection.
- *Seismology and Earth Hazards* will emerge from research experiences from the geophysics master programs at Colombian, Peruvian, and Venezuelan universities. It will focus on the permanent seismic hazards of our regions and will make a joint effort with regional projects like Alerta Temprana de Terremotos en América Central[4].
- *The AI and Computational Physics Tools* community is growing around the services provided

[1] A research and learning community is a group or a network of organisations dedicated to pursuing knowledge, focused on specific areas of interest or study and aiming to advance understanding, solve complex problems, or contribute to the intellectual development of their members. See Caicedo, M., et al. (2017). VIRTUAL RESEARCH AND LEARNING COMMUNITIES IN LATIN AMERICA: THE CEVALE2VE CASE. *Interciencia*, *42*(11), 733-738 and references therein

[2] Open Science MiLAB is a cloud-based platform service designed to support the work of research groups. It focuses on project management, digital history preservation, and collaborative work. These services are integrated through a federated authentication system, allowing centralised digital identity management. Open Science MiLAB aims to enhance the reproducibility of scientific experiments by incorporating its services into research processes, including data capture, analysis, and result publication. Details in https://milab.redclara.net/

[3] The Latin American Giant Observatory (LAGO) is an extended astroparticle observatory. Its primary focus is the study of space weather phenomena through this extensive network of detectors. Additionally, LAGO strongly emphasises collaboration and education, aiming to nurture and train future scientists in this field. See https://lagoproject.net/

[4] Alerta Temprana de Terremotos en América Central (ATTAC) is a collaboration between the national seismic networks in Guatemala (INSIVUMEH), El Salvador (MARN), Nicaragua (INETER) and Costa Rica (OVSICORI-UNA) and the Swiss Seismological Service at ETH Zürich, with funding from the Swiss Agency for Development and Cooperation https://ecfm.usac.edu.gt/node/665

by SCALAC[5], which continues the efforts in HPC from previous cooperation projects with the European Commission, as in the case of RISC2[6]. The community aims to facilitate access to a broad range of computing resources, applications, and existing knowledge, enhancing productivity and addressing regionally impactful problems in Physics.

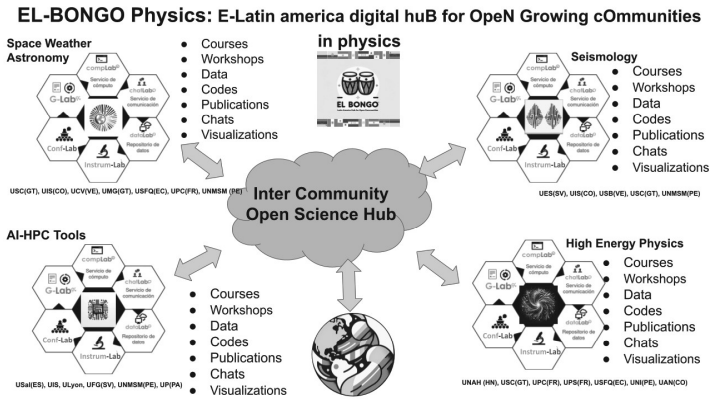

Figure 1 EL-BONGO physics ecosystem of RLC, its digital products and the interrelations through Digital Open Science Hub's

Interdisciplinary, innovative physics curricula.

The training program in the adapted Bologna master's syllabus is modular, featuring 32-hour modules, each valued at 5 ECTS. Its flexible structure accommodates various learning styles and schedules. The program comprises three types of modules: shared (focusing on data science and scientific instrumentation), disciplinary (specific to each Research and Learning Community), and elective (covering diverse topics like Green Nuclear Energy, Muography or Medical Physics) promoting practical, interdisciplinary research. Students must complete a set number of modules in each category, ensuring comprehensive training in data science, scientific instrumentation, and physics, making them attractive to potential employers outside academia. Figure 2 illustrates the blocks of disciplinary and elective modules.

Students from various communities can engage in elective modules in their training program and share academic activities such as seminars, workshops, and events. This setup of coworking and sharing academic activities encourages the exchange of ideas across disciplines, thereby enhancing practical, interdisciplinary research tangibly and collaboratively.

Digital transformation is a priority for this ERASMUS+ Call. EL-BONGO physics project aims to boost the digital transformation of HEIs in Central America and the Andean region by implementing several initiatives. First, **new learning methods are based on RLC but managed with MiLAB.** MiLAB, developed during LA-CoNGA physics project, is a state-of-the-art digital set of tools and open-access resources (GLab, compLab, chatLab, dataLab, confLab and instrumentLAB). MiLAB offers several significant advantages for managing RLCs in the EL-BONGO Project, a digital transformation initiative in higher education across Latin America focusing on physics.

It provides a unified digital platform for project management, digital history preservation, and collaborative work. G-lab, a service within MiLAB, offers version control and project management tools, which are essential for coordinating the multiple activities and research efforts within the RLCs. MiLAB chatLAB facilitates centralised communication, which fosters collaboration among students, educators, researchers, and industry professionals involved in RLCs. This ensures smooth interaction and exchange of ideas, contributing to a more cohesive and dynamic learning and research environment. DataLab, a component of MiLAB, is dedicated to preservation of data generated within research activities , which is particularly important for RLCs in physics, where large datasets handling is a standard.

Communities will grow around the Open Science MiLAB platform, sharing codes, data, plots, publications, and academic interactions. MiLAB, as a centre of the day-to-day RLC activities, is the first contribution to the digital transformation of HEIs in Latin America. EL-BONGO project promotes digital

[5] The Advanced Computing System for Latin America and the Caribbean (SCALAC, https://scalac.redclara.net) organizes and integrates for the region a strategic infrastructure and skills in the field of high-performance computing based on an advanced architecture that includes high-performance computing, scientific and high productivity computing linked by RedCLARA https://elcira.redclara.net/docs/Caso_4.pdf.

[6] The RISC2 project (Red Iberoemaricana de Supercomputo 2) aims to promote and improve the relationship between research and industrial communities, focusing on HPC applications and infrastructure deployment. https://www.risc2-project.eu/

education and open science. MiLAB supports these goals by providing tools and infrastructure encouraging open and accessible data sharing, research findings, and educational resources.

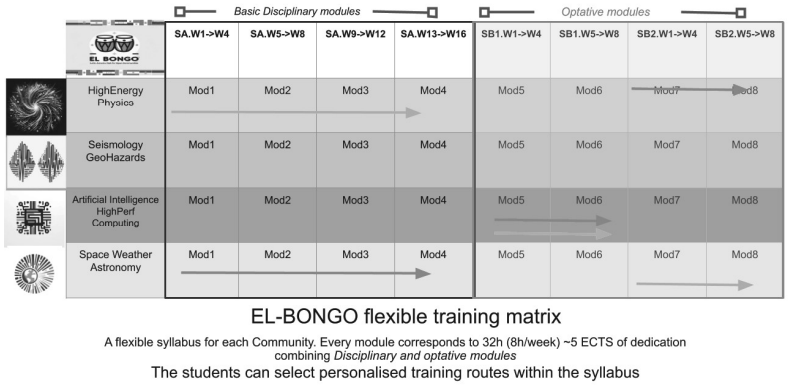

Figure 2. Organisation and sequence of each RLC

The second element of digital transformation is the development of **a collaborative digital Hub for Open Science and Education**[7]**.** The EL-BONGO physics project will present a framework for building a Science Gateway. Each RLC involved in the project will generate digital content curated and shared globally through a digital Science Gateway. This content includes courses, notes, datasets, codes, instrument design, videos, reports, articles, and presentations from conferences and workshops. Furthermore, following the FAIR principles, the advanced computational tools, extensive datasets, and other scientific resources developed by these four communities will become accessible to other researchers. This is particularly beneficial for those who may not have extensive computational expertise to create them from scratch. This initiative fosters greater collaboration and resource sharing in the global scientific community.

There is only one commercial example of Science Gateway in Latin America. A company, Grupo de Difusión Científica[8], has created a commercial Open Research Gateway[9] to highlight the work of researchers in the region. The Chan Zuckerberg Initiative has recently shown interest in advancing open science in Latin America. In 2023, it hosted a workshop in Buenos Aires, Argentina, focusing on accelerating the region's computational biomedicine and open science[10].

EL-BONGO Physics aims to establish a Digital Science Gateway in Latin America that enables RLC networks among the region's universities, research institutions, and industrial partners. At first, this hub will gather the content produced by the four proposed RLCs with professional tools for digital process management. It will coordinate and provide access to data repositories, research facilities, and specialised, adaptable courses addressing specific problems. By enabling the participant institutions to share human and technical resources, this digital science gateway will enhance their capacity for knowledge creation, bolster local skills, and amplify their contribution to global scientific endeavours.

The third significant aspect of the EL-BONGO physics project is the **development of *do-it-yourself* digital fabrication skills for constructing scientific instruments in a network of FABLab environments.**
Promoting digital fabrication skills in low-income countries is a strategic approach to building local capacity, stimulating economic and educational development, enhancing scientific research capabilities, and encouraging innovation and sustainability. Promoting digital fabrication skills in low-income countries is crucial for several reasons:

- **Cost-Effectiveness and Self-Sufficiency:** Digital fabrication enables local production of scientific equipment, significantly reducing costs compared to importing. This promotes self-sufficiency, as local communities can produce, maintain, and adapt equipment to meet specific needs, reducing dependency on external suppliers.

[7] An Open Science Gateway (or Science Hubs) is a digital platform that facilitates science and engineering research and education, providing access to various community resources, including software, data, collaboration tools, instrumentation, and high-performance computing facilities. See Lawrence, et al (2019). HOW THE SCIENCE GATEWAYS COMMUNITY INSTITUTE SUPPORTS THOSE WHO ARE CREATING WEBSITES TO ACCESS SHARED RESOURCES. *Proceedings of the Practice and Experience in Advanced Research Computing on Rise of the Machines (learning)*. https://doi.org/10.1145/3332186.3333256 and references therein

[8] https://difusion.com.mx/

[9] https://f1000research.com/gdcopenresearch

[10] https://chanzuckerberg.com/blog/open-science-latin-america-argentina/

- **Building Local Capacity and Innovation:** Training in digital fabrication equips individuals with skills that encourage innovation and problem-solving. It empowers local scientists, engineers, and students to design and prototype, leading to innovative solutions tailored to local challenges.
- **Economic Development and Job Creation:** Developing digital fabrication skills can spur local economic growth by creating new job opportunities in manufacturing and maintaining scientific equipment.
- **Enhancing Research Capabilities and Global Collaboration**: Institutions in low-income countries can strengthen their research capabilities by producing scientific equipment. This facilitates increased participation in international scientific collaborations and contributes to the global exchange of knowledge and expertise.
- **Promoting Environmental Sustainability:** Local scientific equipment manufacturing can reduce the environmental impact of long-distance shipping and transportation. Digital fabrication often leads to more efficient material usage, minimising waste and contributing to environmental sustainability.

EL-BONGO physics will include three particular efforts to complement the digital transformation:

1. **A network of international relations offices to support researchers.** The International Relations Office (IRO) plays a vital role in contemporary universities as a bridge between the institution and the international academic community. IROs are instrumental in finding and securing international research opportunities, including funding. They also facilitate partnerships with overseas universities, research bodies, and organisations. Such collaborations often result in joint research initiatives, exchange programs for faculty and students, and shared resources, thereby boosting the university's international presence and reputation. However, we have observed a shortage of trained professionals on international relations in these offices, with lack in experience of applying for international funding. Through EL-BONGO physics project, we aim to exchange knowledge and skills between Latin America and Europe for building and managing international projects. Three partners – UT3, UAN, and USFQ – supported by RedCLARA, will spearhead this effort. They will organise focused workshops and seminars to train staff in all institutional IROs.
2. **Science Diplomacy and Cooperation with the Latin American Diaspora.** The concept of science diplomacy is gaining traction in Latin America and the Caribbean (LAC), particularly with the increasing mobility of scientists. This mobility has led to an emerging scientific diaspora, which presents challenges and opportunities for LAC countries. The scientific diaspora can contribute to national science, technology, and innovation systems by exchanging knowledge and resources. Still, there is a risk of brain drain if these talents are not effectively integrated into their home countries.Science Diplomacy may influence CBHE projects like EL-BONGO physics and foster:
    a. *Knowledge Transfer:* The scientific diaspora can facilitate the transfer of knowledge and skills to their countries of origin, enhancing local research capabilities.
    b. *International Networking and Collaboration:* Diaspora scientists can help establish international networks, fostering collaborations between institutions in Latin America and abroad.
    c. *Innovation and Research Development:* These collaborations can lead to innovative research projects and development initiatives, often combining local and international expertise.
    d. *Enhancing Global Visibility:* The diaspora helps increase the visibility of Latin American research and institutions on the global stage, potentially attracting more resources and collaborations.
3. **Social impact activities**. Incorporating extracurricular experiences, such as hackathons and citizen science projects, into EL-BONGO physics is crucial for enhancing educational experiences and fostering innovation. Hackathons, intensive and collaborative events focused on software, hardware, and data, improve practical skills, foster innovation, and encourage creative problem-solving. These skills are vital in contemporary education and research. These initiatives also promote collaboration and teamwork, bringing together individuals with diverse backgrounds, leading to more effective learning and innovative solutions to complex issues. Citizen science projects extend this collaborative spirit to the broader community, involving the public in scientific research, which enhances science literacy and societal impact. Such involvement aligns with open science principles, emphasising transparency, accessibility, and public engagement.
   Hackathons and citizen science projects effectively bridge academic research with real-world problems, making education more relevant and impactful. These activities can ignite an entrepreneurial mindset, inspiring participants to consider the commercial applications of their ideas. Moreover, they increase public engagement and awareness, contributing to a scientifically literate society and garnering support for scientific endeavours.
   These projects provide hands-on learning experiences and are crucial for practically applying theoretical classroom acquired knowledge. They encourage interdisciplinary learning,

showcasing the value of diverse knowledge areas. Additionally, participating in these projects helps build professional networks and communities of practice, valuable for future collaborations and career opportunities.

1.2 Needs analysis and specific objectives

Needs analysis and particular objectives

Please address the specific conditions/objectives in the Call document/ Programme Guide, if applicable.

Describe how the project's objectives are based on a sound needs analysis in line with the specific goals of the call. What issue/challenge/gap does the project aim to address?

The objectives should be clear, measurable, realistic and achievable within the project's duration. For each goal, define appropriate indicators for measuring achievement (including a unit of measurement, baseline value and target value).

Why High Energy Physics as a Collaboration Model

The HEP collaboration model is highly effective in advancing scientific knowledge, driving technological innovation, building international research networks, and fostering education and public engagement in science. This model is best seen in significant projects like those at CERN, which involve extensive collaboration across different countries, institutions, and fields. The key advantages include:

- **Collaboration and Expertise Sharing**: HEP projects require significant resources, often exceeding the capacity of any single institution or country. Collaborative models enable the pooling of financial, technical, and human resources, allowing for the creation and maintenance of large-scale facilities.
- **Interdisciplinary Research**: HEP collaborations unite experts from diverse fields. This interdisciplinary approach encourages innovative solutions to complex challenges and encourages sharing ideas and techniques.
- **Technology Advancement:** The demands of HEP experiments often drive technological progress. HEP collaboration has led to significant advancements with applications extending beyond physics to other fields like medicine and computing.
- **Open data and reproducible science:** HEP projects generate enormous data. These collaborations focus on open data policies, supporting transparency and reproducibility of scientific research.
- **Inspiration and Public Engagement**: Large HEP projects, like the Large Hadron Collider at CERN, capture public interest and inspire future scientists.
- **Scientific Diplomacy**: HEP collaborations serve as a form of scientific diplomacy, promoting peaceful cooperation among countries, even in times of political tension.

The recent pandemic demonstrated the extraordinary potential of the global scientific cooperation scheme. Rapid sharing of data and resources led to significant advancements in understanding the virus and developing treatments and vaccines. The significant shift towards open access to COVID-19 research data allowed faster dissemination and utilisation of scientific findings worldwide, which was crucial in combating the pandemic.

Lessons learned from LA-CoNGA physics.

In LA-CoNGA physics, a recent ERASMUS+ CBHE program[11], we successfully developed and implemented a Bologna-calibrated Master's syllabus for a one-year program on two advanced streams: high-energy physics and physics of complex systems. This curriculum integrated training in three critical areas: data science, scientific instrumentation, and theory. This approach proved to be highly attractive to potential employers beyond academia. The platform and methodology implemented in this program, and tested across three student cohorts, led to a significant boost in graduate physics studies in eight HEIs in the tropical Andes region, spanning Colombia, Ecuador, Peru, and Venezuela.

From the successful experience of LA-CoNGA physics in four Andean countries, we learned that:

- ***A balanced syllabus*** with data science, instrumentation, and one specific discipline generated a valuable professional training framework for other academic research communities.
- ***The training hybrid methodology*** developed through the LA-CoNGA physics project can be extended to other regions, sharing experiences among similar institutions to develop research communities.

[11] Peña-Rodríguez, J., & Núñez, L. A. (2022). LA-CONGA PHYSICS: AN OPEN SCIENCE COLLABORATION IN ADVANCED PHYSICS BETWEEN LATIN-AMERICA AND EUROPE. *arXiv preprint arXiv:2201.02256*. https://doi.org/10.48550/arXiv.2201.02256 See general information of the project at https://laconga.redclara.net/ and the repository of educational resources in https://laconga.redclara.net/courses/

- ***It is challenging to have fully dedicated students***[12] in the program. The program must be flexible, accommodating students who balance their studies with work commitments. Full-time dedication is only sometimes feasible for everyone. Therefore, the community training program has to be designed through a flexible series of self-contained short modules.
- ***The laboratory-as-a-service concept*** should be developed and implemented. The Lab sessions should benefit from augmented and virtual reality elements, sharing laboratory experiences remotely and extending student participation from different locations and through various frontend devices.
- ***Digital fabrication skills and an open-hardware approach*** should be incorporated into the community's training framework early. This will ensure that laboratory equipment can be manufactured (fully or partially) on-site, leading to a more sustainable network.
- ***The training competencies*** acquired in each learning module should be shared online with potential employers, generating equivalence of the courses among institutions.

The experience gained from LA-CoNGA physics presents an excellent opportunity to expand in geography and subject matter. This can be achieved by adapting the curriculum to cover different areas of physics and broadening the underlying concept.

Expanding an educational project like this involves significant changes. These include revising management strategies, increasing the institution's members, and tailoring the approach to meet specific local and disciplinary requirements. These steps are essential to ensure the educational objectives maintain quality and integrity.

To support the digital transformation of HEIs, we introduce three key new features in EL-BONGO Physics:

1. *A learning-by-doing-research methodology* facilitated through the MiLAB digital platform.
2. *A do-it-yourself* approach incorporating digital fabrication techniques for creating scientific instruments, particularly in FABLab settings.
3. *Open content dissemination* via a Digital Science Gateway enhances accessibility and reach.

To expand the geographical reach of LA-CoNGA Physics, we aim to incorporate five institutions from Central America.

Why Central America?
The expansion of EL-BONGO physics focuses on Central American institutions. A CBHE project in Physics for Central American countries can significantly strengthen local and regional scientific capabilities, address specific environmental and technological challenges, and promote broader socio-economic development. This can offer unique benefits and address specific regional needs:

- ***Strengthening Science Education:*** Central American countries often have limited resources for science education, particularly in specialised fields like Physics. CBHE projects can help build research capacity in these countries, essential for addressing local issues and contributing to the global knowledge economy.
- ***Addressing Regional Scientific Challenges:*** Physics is a discipline that may address many global and regional challenges, such as seismic risk, climate change, renewable energy, and environmental monitoring. By improving physics education in Central America, these countries can better tackle local environmental and sustainability issues with scientific approaches.
- ***Promoting Regional Stability through Education:*** Stronger educational systems can promote social and economic stability. Education is a critical factor in reducing inequality and promoting sustainable development. Improving the higher education system in Central American countries can also address some root causes of migration, such as lack of opportunities and economic instability, by creating more local opportunities for education and employment.
- ***Bridging the Knowledge Gap:*** There is a global disparity in scientific research and education, with countries in Central America often lagging. A focused CBHE project in Physics can help bridge this gap, bringing these countries closer to the forefront of scientific research and innovation.

RLC landscape in Central America and the Andean Region

- ***The research activity in the region has a weak community structure***. Only Universidad San Francisco de Quito (USFQ), Universidad Industrial de Santander (UIS), and Universidad de San Carlos de Guatemala (USAC), participate in the LAGO Collaboration. Merely UIS and USFQ are part of SCALAC. Central America faces a severe challenge of limited human

[12] The low enrollment in physics graduate studies in Central American and Andean region, as noted in the LA-CoNGA physics project, is due to economic hardships, forcing many students to work while studying, and infrastructural deficits in universities. These issues compromise education quality and drive talented students to seek opportunities abroad, exacerbating local talent shortages. EL-BONGO seeks to mitigate these challenges by creating adaptable, accessible virtual research and learning communities catering to the varied needs of students.

resources for scientific research, leading to a situation where most researchers operate in isolation within their respective institutions.

- ***Graduate studies are scarce and disconnected.*** Central America has few running graduate programs in physics, which impacts the low scientific production level of those institutions. While some efforts have been made to improve these indicators, regional doctoral programs have been proposed but have yet to be firmly established. There are no courses in Seismic hazards or Geophysics in the Physics Schools of this region, and the situation is the same for the application of Artificial Intelligence and High-performance computing tools.
- ***Half of EL-BONGO physics proponents (USAC, Universidad Francisco Gavidia (UFG), Universidad de El Salvador (UES), Universidad Nacional Autónoma de Hondúras (UNAH), Escuela Superior Politénica del Chimborazo (ESPOCH), and Universidad Autónoma de Bucaramanga (UNAB)) have no experience or access to advanced computational infrastructure.*** The MiLAB infrastructure, which has proven beneficial in the day-to-day activities in LA-CoNGA physics master courses, will now be extended to build these new RLCs. These communities will grow around the Open Science MiLAB platform, sharing codes, data, plots, publications, and academic activities. Additionally, EL-BONGO physics will extend the current platform to manage remote experiments using Internet of Things protocols.
- ***Digital fabrication skills are absent in all master programs in the Andes and Central America,*** where classic theoretical physics training is standard. The ability to quickly design and fabricate components in experimental physics can significantly speed up the research process. It allows cost-effective solutions in research settings, especially for institutions with limited resources. It enables the in-house production of equipment and components, reducing dependence on external suppliers. *Digital fabrication skills* are an essential part introduced early in the instrumentation course in the FABLab environments.

EL-BONGO specific objectives:
The EL-BONGO physics RLC scheme will implement the HEP model of sharing human and technical resources in an atmosphere of international collaboration. Based on the lessons learned in LA-CoNGA, we aim to promote digital transformation in all 14 proponent institutions but with particular emphasis on five HEIs in Central America through the following specific objectives:

- **Promote Digital Research and Learning Communities and Open Science by** integrating international cooperation, using advanced digital tools and sharing open-access resources in daily activities. The Open Science MiLAB framework of digital Professional Tools (GLab, compLab, chatLab, dataLab, confLab and instrumLab) will be used in all RLC processes (planning, researching, training, data collecting, data analysis, to mention a few).
- **Use Advanced Digital Infrastructure:** Providing state-of-the-art Open Science MiLAB platforms, research databases, high-performance computing and virtual laboratories to support innovative learning and research practices in Central America.
- **Develop Practical Skills in Digital Fabrication by fostering** hands-on experiences in digital fabrication through FABLab environments and enhancing skills in building scientific instruments.
- **Implement a Hybrid Bologna Master Program** for the three new research-learning communities: Offering a flexible, problem-oriented advanced training program in space weather, seismology, artificial intelligence, and high-performance computing tools in physics. The master courses will be based on short modules configured by the interest of the R&D project of the community.
- **Develop a Collaborative Hub for Science and Education,** or Science Gateway, that caters to the academic and research-learning community and engages the broader society in lifelong learning and science education.
- **Foster capacities in international relations among the partner institutions.** This proposal aims to create an efficient network of international relations offices that promote capacities for obtaining international funding in the region.

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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 complement other activities carried out by other organisations (if applicable). Illustrate the transnational dimension of the project, its impact/interest in the EU area, the possibility of using the results in other countries, the potential to develop /cross-border cooperation among Programme 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.

EL-BONGO physics builds on the successes and lessons learned from previous initiatives as LA-CoNGA physics by incorporating several innovative elements to transform physics education and research in Latin America. Its focus on digital tools, community-centred learning, practical skills development, and global engagement represents a forward-thinking approach to science education and collaboration in the region. Here is how EL-BONGO physics builds on these past activities and their innovative contributions:

Building on Past Activities:

1. **Curriculum Development**: EL-BONGO physics takes the LA-CoNGA physics program's Bologna-style master's syllabus as a starting point, enhancing it to suit a broader range of physics sub-disciplines. This approach leverages the successful curriculum implementation that integrates data science, scientific instrumentation, and a specific discipline course.
2. **Digital Learning Platforms:** Using the experience gained from LA-CoNGA's digital platforms, EL-BONGO physics extends these platforms to foster more comprehensive collaboration. This includes using the MiLAB platform for project management, digital history preservation, and collaborative work.
3. **Virtual Laboratories**: Building on LA-CoNGA's concept of remote laboratories, EL-BONGO physics aims to develop this further by incorporating augmented and virtual reality technologies, making remote lab experiences more immersive and accessible.
4. **Community Engagement**: LA-CoNGA's establishment of a virtual research and learning network laid the groundwork for EL-BONGO physics to expand this network geographically and thematically, reaching out to a broader community across Central America and the Andean regions.
5. **Social Impact Activities**: Integrating hackathons and citizen science projects enhances the educational experience, fosters innovation, and bridges the gap between academic research and real-world applications. This type of activity with social impact will continue in EL-BONGO physics.

Innovative Aspects:

1. **Research-Learning Community-Centered Approach**: EL-BONGO physics's focus on forming and nurturing research-learning communities is an innovative educational model based on the *learning-by-doing-research.* It aligns the learning process directly with ongoing research projects, fostering a practical, hands-on approach to education.
2. **A network of FABLab Environments:** EL-BONGO physics introduces digital fabrication labs (FABLab environments) where participants can gain hands-on experience creating scientific instruments. This approach of *doing by yourself* nurtures practical skills crucial for experimental physics and promotes scientific equipment design and production innovation.
3. **Interdisciplinary and Modular Curriculum:** The project proposes a modular curriculum for flexibility and interdisciplinarity. This structure enables students to tailor their learning paths according to their interests and the needs of their respective research communities.
4. **Collaborative Science Gateway**: Establishing an Open Science Collaborative Hub or Science Gateway is an innovative aspect of EL-BONGO physics. It is central to accessing educational resources, collaborative tools, and research databases, promoting open science principles.
5. **Global Engagement:** Connecting with the Latin American diaspora and fostering a globally engaged community is an innovative strategy for enhancing scientific collaboration and cultural exchange.
6. **Social Impact Activities**: Integrating hackathons and citizen science projects enhances the educational experience, fosters innovation, and bridges the gap between academic research and real-world applications.

European Added Value:

1. **Strengthen long-term invaluable partnerships between Europe and Latin America**: create a deeply connected network of academic institutions and industrial partners between European and Latin American countries, beneficial for researcher mobility, participation in each other's scientific infrastructures, and having a scientific workforce of similar capacities
2. **Enhancing BELLA Programme.** EL-BONGO Physics's efforts to build RLC in the Andean and Central American regions align well with the BELLA (Building the Europe Link to Latin America) Programme. BELLA, an ambitious project, aims to establish long-term connectivity between European and Latin American research and education communities, significantly boosting collaboration. It focuses on enhancing and widening the digital ecosystem in Latin America and the Caribbean, promoting interactions among businesses, research centres, educational institutions, and national research and education networks.
3. **Supporting GÉANT's Goals in Latin America.** EL-BONGO physics's focus on creating virtual research and learning communities could help expand GÉANT's[13] influence in these areas. This effort involves leveraging advanced digital infrastructure, such as HPC, which complements GÉANT's provision of advanced computational resources to the European

[13] GÉANT is a significant component of Europe's e-infrastructure, primarily serving the research and education community. A pan-European data network interconnects national European research and education networks (NRENs) https://geant.org/ .

research community. By sharing expertise and resources, the computational capabilities in both continents can be significantly improved.

4. **Promotion of Open Science.** EL-BONGO Physics's commitment to providing open-access educational resources aligns with GÉANT's educational services. European institutions stand to gain from the unique perspectives and content Latin American educators and researchers offer, enhancing the overall learning experience. EL-BONGO physics's dedication to open science and digital education, including managing and preserving research data, matches GÉANT's goal of offering secure, efficient data services. Collaboration with EL-BONGO physics could boost GÉANT's data storage, sharing, and management capabilities, with a particular focus on physics research.
5. **Adapting the European Educational Framework**: EL-BONGO physics community training program incorporates the Bologna process, adapting European higher education models to the Latin American context. This involves developing relevant modules for both regions and tackling global scientific challenges, ensuring a diverse and comprehensive educational experience. The participation of Universidad de Salamanca, especially its expertise in MOOC courses addressing climate change, is expected to play a crucial role.

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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/Programme Guide under the 'Quality of the project design and implementation' award criterion.

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

In the following, we sketch the general methodology to accomplish the above specific objectives presented in section 1.2.

How we build a research and learning community

During the initial half of our preparatory year, we will establish four learning communities, drawing from the insights gained through the HEP community's development in the LA-CoNGA physics project. Our plan involves key steps:

1. *Clarifying Research Goals:* We will clearly articulate each community's research purpose and objectives, ensuring a focused and goal-oriented approach to our scientific endeavours.
2. *Governance Structure:* A governance framework will be implemented to manage the community's activities and resources effectively, ensuring smooth operations and responsible stewardship.
3. *Ethical and Inclusive Policies:* We will establish policies and guidelines that uphold ethical conduct, facilitate data sharing, and promote inclusion and gender equity in our collaborative work.
4. *Utilising MiLAB Framework:* The MiLAB collaborative platform will be integrated into our workflow. Community members will receive training on this platform to adopt open science and reproducibility best practices.
5. *Developing a Training Program:* We will tailor the community training program based on the adapted LA-CoNGA syllabus. It will feature short, modular courses reflective of a Bologna-style master's program. Each module will have clearly defined competencies and learning outcomes.
6. *Structuring Academic Life:*

- Mentorship: Assigning mentorship roles to experienced members will guide newcomers or students, fostering a nurturing and educational environment.
- Exchange Activities: Planning and organising activities like seminars, workshops, and focus groups will encourage the exchange of ideas and foster a vibrant intellectual community.

How we Build an Ecosystem of Research and Learning Communities

To establish a research and learning ecosystem, we will initiate a dynamic process involving roundtable discussions, brainstorming sessions, and focus groups during the second half of the preparatory year. This will involve four learning communities. Our primary goal is to facilitate the exchange of ideas and the development of shared training spaces. Our efforts will be directed towards

- Introducing each community's unique challenges, methodologies, resources, and personnel to the other three communities.
- Identify potential areas for synergy and collaboration, particularly in leveraging AI and computational tools to support the activities of the other three communities.
- Outline potential elective modules that these communities could share, detailing each module's competencies and learning outcomes.
- Organise inter-community activities such as workshops, seminars, hackathons, and citizen science initiatives to foster community collaboration and shared purpose.

How we build a FABLab Network

EL-BONGO physics is committed to equipping students and researchers in Latin America with essential digital fabrication skills, transforming them from mere consumers to creators and innovators in physics and related fields. This initiative is critical to developing a self-sustaining research environment and boosting technical capabilities in the region. The process, led by UNMSM with support from UAN and UIS, includes several strategic actions:

1. **Defining a Typical FABLab Setup and Assessing Local Needs:** In the first semester of the preparation year, we will determine the physical infrastructure necessary for each RLC. This includes 3D printers, laser cutters, CNC machines, and various electronic tools for hands-on learning and experimentation. We will also compile a list of requirements for installing this equipment at each partner institution.
2. **Integration of Instrumentation Course:** Concurrently, in the first semester, the instrumentation course will be tailored to the specific needs of each RLC. This involves identifying project-based learning activities and collaborative projects to foster student collaboration. These activities will include modules focused on teaching the theory and practice of digital fabrication, ensuring students acquire theoretical knowledge and practical skills. This approach emphasises the importance of prototyping, testing, and refining designs in research and development.
3. **Workshops and Training Sessions:** A train-the-trainers program will be implemented during the second semester of the preparation year. This will involve dedicated workshops and training sessions within each partner FABLab. Experts from UNMSM will lead these sessions, covering topics ranging from essential machinery operation to advanced fabrication techniques. To support these sessions, UNMSM and UAN will provide online tutorials, resources, and platforms for remote collaboration.
4. **Operational FABLab Network:** The FABLab network is expected to be fully operational in the second and third years of the project. UNMSM and UAN will serve as the central hubs for prototyping and testing. They will continuously communicate with RLC leaders to identify and address specific REC needs. The G-LAB tool will share updates and new developments from various FABLab locations. Regular assessments and feedback mechanisms will be in place to gauge students' proficiency in digital fabrication skills and pinpoint areas for improvement.

How we implement an ecosystem of Hybrid Master Courses

The Master's Program within each RLC is designed to offer a high-quality, relevant, and internationally recognised education in physics and related fields. The program is tailored to prepare students for successful research careers. Our focused efforts include

1. *Community-Centred Curriculum Design:* During the first semester of the preparation year, each RLC will develop a master's training program aligned with specific research objectives. The program's courses will be modular, with each module representing a self-contained unit of about 16 academic hours or 3 European Credit Transfer and Accumulation System (ECTS) credits. The curriculum will include data science and adapt scientific instrumentation courses, broadening students' knowledge and skills. Each RLC will determine its specialised disciplinary modules, while optional modules will be designed to appeal to a diverse range of learning communities.
2. *Structuring Academic Inter-community Life:* In the second semester, we plan to enhance the educational environment by assigning mentors to experienced members who will guide new students. Additionally, we aim to organise various activities, such as seminars, workshops, and focus groups. These activities are intended to stimulate the exchange of ideas and cultivate a dynamic intellectual community.
3. *Operational Ecosystem of Bologna Master Courses:* Throughout the second and third years of EL-BONGO physics, an operational course structure will be implemented, with continuous feedback mechanisms to track student progress and make necessary adjustments. The program will undergo regular quality assurance reviews to ensure it aligns with the educational standards set by the Bologna Process. This approach ensures that the program remains adequate, relevant, and up to standard.

How we build and profit from a Science Hub of digital content produced by the RCL

The EL-BONGO physics Project presents a framework for building a Science Hub that can be instrumental in fostering collaborative research and education in physics, exporting the experiences of our community ecosystem to other emerging communities within the Latin American region. We shall build the Science Gateway for Latin America during the project's second year. As with any software project, it will follow a methodology outlined in these critical steps:

Gathering requirements and identifying Core Areas. Interviewing community leaders, educators, researchers, and students to understand their needs and expectations, documenting functional and non-functional requirements, user roles, content types, interaction features, and security measures.

Planning and Design. Define the portal's architecture, considering scalability, performance, and integration with existing MiLAB environments of each community (like G-lab, compLab, and dataLab). Create intuitive and accessible user interfaces, focusing on the user experience (UI/UX Design) of different community needs.

Development Process: Adopt an agile development process with sprints, allowing for iterative development and regular feedback.

Develop a MiLAB inter-community collaboration space for the RLC ecosystem. This involves:

- Implement MILAB intercommunity tools, such as the G-lab environment, to share codes and documents such as projects, publications, theses, and dissertations. Employ CompLab for scientific computation and DataLab for research data preservation.
- Configure an intercommunity ChatLAB to create channels with online forums, discussion groups, and collaborative spaces.
- Develop APIs for data exchange between the portal and other EL-BONGO physics community services.

Ensure compliance with data privacy laws and open science guidelines. Establish a federated authentication system for centralised digital identity management.

Curate digital educational content from the communities, i.e recorded lectures, interactive Jupyter notebooks, and comprehensive datasets. This content will be openly available for any Latin American institution.

Implement a G-lab repository for the FABLab network, having a collection of open-source files for digital fabrication like G-code and the most common open-source formats.

Testing, stressing and Quality Assurance. Test the integration points between different application parts. Conduct user acceptance testing with actual users to ensure the portal meets user requirements and is free of critical bugs.

How we build an international relations office community

EL-BONGO physics project, a structured methodology for training IROs across our partner institutions is essential. This training, supported by RedCLARA, will focus on building and managing international projects, particularly securing international research opportunities and funding.

Survey, interviews and curriculum design. In the initial semester, a survey and interviews with IRO staff at partner institutions will assess their skills and training needs in international project management and funding. This will inform the development of a comprehensive curriculum covering international funding, grant writing, project management, collaboration strategies, and legal/ethical aspects of research.

MiLAB as a digital resource support: During the second semester of the preparation year, we implement MiLAB training for the IRO community

Workshop and Seminar Organization: In the second semester of the preparation year, we organise a series of workshops and seminars will be organised to provide theoretical and practical training in international relations and project management, led by experts from UT3, UAN, USFQ, and RedCLARA, and external professionals. The curriculum will include interactive sessions with mock proposals, role-playing, grant-writing feedback, and peer learning for IRO staff to exchange experiences.

Evaluation, Feedback, and Advanced Training Enhancement: In the project's second year, we develop the curriculum plan, integrating continuous assessment to track understanding and skill development. A robust feedback system was established to evaluate training effectiveness and pinpoint areas for improvement. We organised follow-up workshops on advanced topics and challenges and developed professional development pathways encompassing advanced courses, conferences, and networking events.

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2.1.2 Project Management, Quality Assurance and Monitoring and Evaluation Strategy

LOGICAL FRAMEWORK MATRIX TEMPLATE AND INSTRUCTIONS HOW TO FILL IT IN

Complete the following Logical Framework Matrix (LFM) table and copy/paste it (only the table) in *Part B - 2.1.2 "Project management, quality assurance and monitoring and evaluation strategy"* of the application form.

NARRATIVE SUMMARY OF THE INTERVENTION LOGIC	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS AND PREREQUISITES
Goal (general objective) *Identify the broader objective to which this project contributes* Establish a network of RLCs across four subfields of physics. This initiative is focused on introducing a hands-on, research-centred approach within a consortium of graduate physics and computing programs in Central America and the Tropical Andes. The project aims to create a modular Master's program aligned with the Bologna standards and establish a Science Gateway to share digital materials like publications, codes, and datasets within the research ecosystem.	*) The number of RLCs successfully established in the targeted regions. *) The level of active participation in these communities. *) The number of programs developed and aligned with the Bologna standards. *) Enrollment and completion rates in these Master's programs. *) The establishment and operational status of the Science Gateway. *) The volume and variety of digital materials shared (publications, codes, datasets). *) The number and quality of collaborative projects and networks between participating institutions and researchers.	*) Official records or documentation proving the establishment of RLCs. *) Reports or data on membership and participation levels in these communities. *) Academic records or curriculum documents verify the development and alignment of programs with Bologna standards. *) Enrollment and graduation statistics of the Master's programs. *) Proof of the operational status of the Science Gateway, such as a live website or platform. *)Analytics or logs showing the usage and contributions to the Science Gateway (e.g., number of publications, codes, datasets uploaded). *) Records of established joint projects, partnerships, or networks, including agreements, project reports, or collaborative publications.	1. Adequate financial and resource support for the project duration. 2. Reliable and widespread access to necessary technological resources and infrastructure. 3. Supportive political and institutional contexts in the regions where the project is being implemented. 4. There is a High level of engagement and willingness to collaborate among participating institutions, researchers, and students. 5. Ability to meet local and international regulations and standards, especially for the modular Master's program aligned with Bologna standards. 6. Programs and activities should be adaptable to participants' diverse cultural and educational backgrounds.
Purpose (specific Objectives) *List the specific objectives that projects shall achieve* 1. Promote Digital Research, and Learning Communities, and Open Science. 2. Use Advanced Digital Infrastructure. 3. Develop Practical Skills in Digital Fabrication. 4. Implement a Hybrid Bologna Master Program for four research-learning communities 5. Develop a Collaborative Hub for Science and Education, or Science Gateway,	**1.1** Number of digital RLCs established. 1.2 Number of participants engaged in these communities. 1.3 Number and quality of open science resources created and shared 2.1 Degree of enhancement in digital infrastructure (e.g., bandwidth, server capacity). 2.2 Usage statistics of the digital infrastructure by the communities. 2.3 Feedback on the effectiveness of the infrastructure from users. 3.1 Number of training sessions or workshops conducted in digital fabrication. 3.2 Number of participants who completed digital fabrication training. 3.3 Assessment scores or skill improvement metrics of participants.	1.1 Community registration records and activity logs. 1.2 Surveys and feedback forms from participants. 1.3 Repository or database tracking open science resources created and shared. 2.1 Technical reports detailing infrastructure enhancements. 2.2 Digital analytics reports showing usage statistics. 2.3 User feedback surveys (UX) or system usage reviews 3.1 Attendance records for training sessions or workshops. 3.2 Certificates or assessments documenting participant skill levels. 3.3 Post-training evaluation forms or skill assessments. 4.1 Enrollment and graduation records of the program.	1. Continuous financial support for the project's duration. 2. Reliable access to necessary technology and internet connectivity. 3. The participating countries have supportive and stable political and institutional environments. 4. Active and sustained engagement from students, educators, and researchers. 5. The willingness of institutions and individuals to collaborate across borders. 6. Participants possess or can acquire the basic skills needed for effective involvement. 7. Ability to meet various legal and regulatory requirements in different countries. 8. Adaptation of the program to diverse cultural and educational contexts.

	4.1 Number of enrolled students in the Bologna Master Program. 4.2 Completion rate of the program. 4.3 Post-program employment or academic advancement rates of graduates. 5.1 Number of collaborations or projects initiated through the hub. 5.2 User engagement metrics (e.g., active users, frequency of use). 5.3 Surveys measuring user satisfaction and the hub's impact on research and education.	4.2 Alumni tracking for employment or academic progression. 4.3 Student feedback surveys or program evaluation reports. 5.1 Log files and usage statistics of the hub. 5.2 Records of collaborations or projects initiated. 5.3 User satisfaction surveys or impact assessment studies.	
Outputs (deliverables) *List the deliverables (grouped in work packages) that the project is committed to produce. These must be stated as results* ***WP1: Preparation*** *D1.1 Report on RLC. This report describes how to implement and operate each RLC, including Members, responsible parties, research topics, equipment needed, and training program. It will also include the IRO particular case.* ***WP2:* Development and installation of tools** *D2.1 FABLabs from A to Z. Especifying the needs for a FABLab installation. Requirements of space, ventilation, power, furniture, space, safety, storage for chemicals and reagents, and data communication infrastructure. The installation and operation of the equipment and network operation* *D2.2 EL-BONGO Physics Science Gateway. This detailed report includes requirements specifications, Project Plan and Design Specifications, Documentation, API and Integration, Compliance and Security, Guidelines, Content Curation, Testing and Quality Assurance Plans, Training Materials, and Maintenance.* ***WP3: Training and education*** *D3.1 Ecosystem Training Program Report. This report describes the two-year academic program operation and includes impact statistics from surveys.* ***WP4: Quality plan*** *D4.1 and D6.1 MidTerm Report An exhaustive report concluding the first year of courses, this report*	**Indicators** **WP1: Preparation** OVI1.1.1 Completion of the report detailing RLC implementation and operations. OVI1.1.2 Specific details on members, responsible parties, research topics, equipment, and training programs. **WP2: Development and installation of tools** OVI2.1.1 Comprehensive list of requirements for FABLab installations. OVI2.1.2 Detailed specifications for space, ventilation, power, furniture, safety, storage, and data communication infrastructure. OVI2.2.1 Completion of the report, including requirements specifications, project plan, and design specifications. OVI2.2.2 Documentation of API, integration, compliance, security, content curation, testing, quality assurance plans, training materials, and maintenance **WP3: Training and education** OVI3.1.1 Detailed report on the two-year operation of the academic program. OVI3.1.2 Evaluation of survey impact for the different training programs. **WP4: Quality plan** OV4.1.1 Completion of a comprehensive report	**How indicators will be measured** **WP1: Preparation** MoV1.1.1 verification through the report submitted detailing RLC implementation and operations. MoV1.1.2 Review of annexes or appendices in the report for member lists and equipment details. **WP2: Development and installation of tools** MoV2.1.1 Inspection of the detailed report or manual created for FABLab installations. MoV2.1.2 Cross-referencing specifications with current installations. MoV2.2.1 Evaluation of the completed report, including all technical and design documentation. MoV2.2.2 verification through accessing and reviewing the Science Gateway platform and its content. **WP3: Training and education** MoV3.1.1 Assessment of the detailed training program report. MoV3.1.2 Analysis of survey results and impact evaluations included in the report. **WP4: Quality plan** MoV4.1.1 Review of the comprehensive midterm report. MoV4.1.2 Analysis of survey results and feedback for course improvement. **WP5: Dissemination and exploitation**	**Risks** 1. Changes in funding levels or delays in fund disbursement. 2. Difficulties in procuring or maintaining the necessary technology and infrastructure. 3. Political instability or changes in institutional policies affecting collaboration. 4. Lower than expected participation or engagement from target communities. 5. Challenges in establishing effective cross-border collaborations. 6. Compliance with diverse regulatory environments and standards. 7. Issues related to data privacy and cybersecurity. 8. Loss of key personnel or difficulties in staff recruitment.

assesses the overall quality of the project and identifies improvements for the upcoming year. ***WP5:Dissemination & exploitation*** *D5.1 Communication Plan. Develop a Communication Plan outlining strategies for sharing project information, including visual identity, thematic discourse, spokesperson roles, and progress mechanisms. Communicate objectives, achievements, and social impact to diverse audiences.* ***WP6: Management*** *D6.2 Final Report The final report describes the project's achievements, identifies challenges and ensures efficient resource utilisation. Include recommendations for sustainability and future development*	assessing the first year of courses. OV4.1.2 Evaluation of survey impact statistics for staff and students. OV4.1.3 Identification of areas for improvement. **WP5: Dissemination and exploitation** OV5.1.1 Develop a detailed communication plan. OV5.1.2 The Strategies for sharing project information include visual identity, thematic discourse, spokesperson roles, and progress mechanisms. **WP6: Management** OV6.2.1 Final report detailing the project's achievements and challenges. OV6.2.2 List of recommendations for sustainability and future development.	MoV5.1.1 Examination of the developed communication plan. MoV5.1.2 Verification through the implementation of communication strategies. **WP6: Management** MoV6.2.1 Evaluation of the final project report. MoV6.2.2 Review of listed achievements, challenges, and recommendations.	
Activities: *List the key activities to be carried out (grouped in work packages) and in what sequence, in order to produce the expected results.* **WP1: Preparation** 1.1 Articulate each community's research purpose and objectives, establish a governance framework, create policies and guidelines for ethical conduct, data sharing, inclusion, and gender equity, and plan annual seminars, workshops, and hackathons. 1.2 Define the community training program by adapting the syllabus from the LA-CoNGA model. 1.3 Identify the skills, profiles, and activities of the partner consortium's IROs. 1.4 Establish the IRO training program, including its content, methodology, and trainers responsible for it. **WP2: Development and installation of tools** 2.1. Determine the required physical infrastructure for each RLC, including equipment like 3D printers, laser cutters, CNC machines, and electronic supplies/tools. It also includes	**Indicators of progress** **WP1: Preparation** PIn1.1.1 Completion of documented purposes and objectives for each community. PIn1.1.2 establishment and documentation of the governance framework. PIn1.1.3 Creation and approval of ethical conduct, data sharing, inclusivity, and gender equity policies. PIn1.1.4 Scheduled and executed annual seminars, workshops, and hackathons. PIn1.2.1 Finalisation and approval of the adapted training program syllabus. PIn1.2.2 Implementation of the training program within the communities. PIn1.3.1 Completion of a detailed skills and profiles report for the IROs. PIn1.3.2 Integrating identified skills and profiles into the IRO selection and training processes. PIn1.4.1 Develop and finalise the IRO training program content and methodology. PIn1.4.2 Training sessions will commence as per the established program	**WP1: Preparation** MIn1.1.1 Review and analyse each community's documented research purposes and objectives. MIn1.1.2 Examination of governance framework documents. MIn1.1.3 Verify the creation and approval of policies through meeting minutes or policy documents. MIn1.1.4 Track and record the organisation's attendance at annual seminars, workshops, and hackathons. MIn1.2.1 Assessment of the training program syllabus through document reviews. MIn1.2.2 Monitoring and evaluation reports to track the implementation of the training program. MIn1.3.1 Analysis of the skills and profiles report for completeness and relevance. MIn1.3.2 Review the processes and outcomes of integrating these skills and profiles into IRO selection and training. MIn1.4.1 Evaluation of the training program content and methodology through document reviews. MIn1.4.2 Monitoring attendance and feedback from	**WP1 Risks** R1.1. Limited financial resources can hinder the implementation of planned activities. R1.2. Difficulties acquiring or effectively utilising required technology for RLCs. R1.3. Reduced participation or interest from community members or IROs. R1.4. Delays or complications in establishing policies and governance frameworks. R1.5. Misunderstandings or misalignments due to diverse backgrounds. R1.6. Challenges in developing or delivering effective training programs. R1.7. Loss of key personnel or difficulties in recruitment. R1.8. Problems coordinating activities and maintaining effective stakeholder communication. R1.9. Issues related to the handling and security of sensitive data. R1.10. Unforeseen events like political changes, natural disasters, or health crises. **WP2 Risk** R2.1. Supply chain disruptions and acquiring the necessary equipment for FABLabs have

compiling a list of requirements for installing this equipment at each partner university. 2.2. Adapt the instrumentation course for each RLC and incorporate project-based learning to enhance collaboration. It also involves developing modules that combine theory and practice in digital fabrication. 2.3. Develop online workshops for all partner FABLabs. These sessions cover topics from machinery operation to advanced techniques. Online resources support this activity and follow a train-the-trainers approach. 2.4. Ensure the FABLab network is fully operational, with two hubs for prototyping and testing. It also includes sharing design updates through the G-LAB tool. 2.5. Engage in roundtable discussions, brainstorming sessions, and focus groups with all RLCs to identify potential areas of synergy and collaboration. This includes leveraging AI and computational tools and implementing inter-community activities like workshops, seminars, hackathons, and citizen science initiatives. 2.6. Conduct interviews with community members to document functional and non-functional requirements, user roles, content types, and interaction features. This also involves defining the architecture of the Science Gateway, focusing on scalability, performance, integration, and UI/UX design. 2.7. Test, Stress, and set the quality Assurance, implementing an agile development process with iterative sprints and feedback, creating a collaboration space in the RLC ecosystem, and integrating various labs and services. This includes extensive testing, user acceptance of alpha and beta versions, and ensuring portal functionality, usability, and reliability. **WP3: Training and education** 3.1. Schedule modules for training community courses, both disciplinary and transversal, and establish mechanisms for continuous	**WP2: Development and installation of tools** PIn2.1.1 Equipment lists and installation requirements for each RLC 2.1 were completed. PIn2.1.2 Successful installation of the necessary equipment at partner universities. PIn2.2.1 Finalise and implement the adapted course syllabus. PIn2.2.2 feedback from participants on the effectiveness of the project-based learning approach. PIn2.3.1 Number of developed and conducted online workshops. PIn2.3.2 Participant engagement and feedback on workshop quality and relevance. PIn2.4.1 Functional status of the FABLab network and prototyping hubs. PIn2.4.2 Usage statistics and updates shared through the G-LAB tool. PIn2.5.1 documentation of conducted roundtable discussions and brainstorming sessions. PIn2.5.2 Identified collaborative projects and initiatives. PIn2.6.1 Completion of requirements gathering and architecture design. PIn2.6.1 Development progress reports and user feedback on design. PIn2.7.1 Execution of the planned agile development sprints. PIn2.7.1 Reports from testing phases, user acceptance and feedback. **WP3: Training and education** PIn3.1.1 Completion and adherence to the scheduled training modules. PIn3.1.2 Effectiveness of feedback mechanisms as measured by student progress tracking. PIn3.2.1 Number of	the training sessions. **WP2: Development and installation of tools** 2.1. Review equipment lists and installation records at each partner university and conduct physical inspections or audits. 2.2. Analyse the finalised course syllabus and gather feedback through surveys or interviews with participants. 2.3. Track the number of workshops developed and conducted and evaluate participant engagement through attendance records and feedback forms. 2.4. Monitor operational status through regular check-ins and analyse usage statistics and updates from the G-LAB tool. 2.5. Document the roundtable discussions and brainstorming sessions and track the initiation and progress of collaborative projects. 2.6. Review progress reports and gather user feedback on the Science Gateway's design and functionality. 2.7. Evaluate the execution of development sprints and analyse reports from various testing phases, including user acceptance feedback. **WP3: Training and education** 3.1. Analyse course schedules and adherence records. 3.2. Evaluate student progress reports and feedback to assess the effectiveness of feedback mechanisms. 3.3. Count and review the internship plans created. 3.4. Collect and analyse feedback from students and host organisations. 3.5. Monitor the organisation	been delayed. R2.2. Difficulties implementing or maintaining the required technology for FABLabs and online platforms. R2.3. Insufficient funding to cover the costs of equipment, course development, or workshop organisation. R2.4. Inadequate human resources to effectively manage and execute the activities. R2.5. Low participation or engagement in online workshops and training sessions. R2.6. Challenges establishing effective collaboration among partner universities and communities. R2.7. Participants lack technical skills for effective engagement in activities. R2.8. Inefficiencies or delays in project management and coordination. R2.9. Security vulnerabilities in online platforms and digital tools. **WP3 Risks** R3.1. Lack of interest or participation in cohort-based learning, internships, or extracurricular activities. R3.2. Insufficient resources (funding, staff, technology) to implement and manage activities effectively. R3.3. Difficulties scheduling and coordinating various activities, especially for the virtual international school.

feedback to track student progress. 3.2. Develop internship plans to facilitate student mobility and manage these programs to ensure meaningful learning experiences. 3.3. Organise a one-week virtual network school following each student cohort to provide additional learning opportunities, enhance community engagement, and benefit the broader community ecosystem. 3.4. Plan and execute various academic activities, such as seminars, workshops, conferences, and hackathons, and incorporate citizen science activities to engage students and promote social responsibility. 3. **WP4: Quality plan** 4.1. Develop and implement a comprehensive Quality Assurance Plan to maintain project standards. 4.2. Formulate a Code of Conduct and Gender Policy to ensure ethical behaviour and inclusivity. 4.3. Create a plan for effective data handling, storage, and sharing. 4.4. Design and implement questionnaires for student feedback on training quality. 4.5. Conduct surveys to evaluate teaching resources and facilities from a staff perspective. 4.6. Monitor and analyse social media and website interactions to assess and optimise communication strategies. **WP5:Dissemination & exploitation** 5.1. Develop and implement a comprehensive Communication Plan, which includes establishing the project's visual identity, thematic discourse, spokesperson roles, and information-sharing mechanisms. 5.2. Create and maintain the website and social media profiles for the project and its four research communities. 5.3. Regularly update social media and the website with news about project advancements, community activities, course openings, and network schools. 5.44. Provided support in creating informational content, proofreading reports, and maintaining the science gateway website for other	developed and implemented internship plans. PIn3.2.2 Student and host feedback on the quality and relevance of the internships. PIn3.3.1 Successful organisation and execution of the virtual network school. PIn3.3.2 Participation rates and participant feedback on the learning experience. PIn3.4.1 Number and diversity of academic and extracurricular activities conducted. PIn3.4.2 Participant engagement and feedback on the activities, including citizen science initiatives. **WP4: Quality plan** PIn4.1.1 Completion and implementation of the General Quality Assurance Plan. PIn4.1.2 adherence to the outlined procedures and standards. PIn4.2.1 Finalisation and dissemination of the Code of Conduct and Gender Policy. PIn4.2.2 Compliance rates and feedback on these policies. PIn4.3.1 Development and implementation of the Data Management Plan. PIn4.3.2 compliance with data handling, storage, and sharing protocols. Questionnaires:** PIn4.4.1 number of questionnaires distributed and completed. PIn4.4.2 Analysis of feedback regarding the quality of	and execution of the event. 3.6. Gather participation data and participant feedback through surveys or interviews. 3.7. Track the number and types of academic activities conducted. 3.8. Use participant engagement data and feedback to assess the impact and relevance of these activities. **WP4: Quality plan** 4.1. Review the completed Quality Assurance Plan document. 4.2 Conduct audits or inspections to ensure adherence to the plan. 4.3 Analyse the finalised policy documents. 4.4 Gather feedback through surveys or interviews to assess understanding and compliance. 4.5 Evaluate the detailed Data Management Plan. 4.6 Monitor adherence to data management protocols. 4.7 Collect and analyse responses from the questionnaires. 4.8 Track response rates and trends in student feedback 4.9 Compile and analyse survey results. 4.10 Assess feedback regarding teaching resources and facilities. 4.11 Monitor and analyse social media and website analytics. 4.12 Assess changes in	R3.4. Inability to secure high-quality, relevant student internship placements. R3.5. Problems with online platforms or digital tools for virtual learning and international school. R3.6. Ineffective communication among students, faculty, and external partners. R3.7. Unforeseen health crises, political instability, or natural disasters affect participation and implementation. **WP4 Risks** R4.1. Insufficient resources (financial, human, technological) allocated for quality assurance, policy development, and data management activities. R4.2. Resistance or lack of adherence to the new Code of Conduct, Gender Policy, and data management protocols. R4.3. Difficulties implementing or maintaining data management systems and online survey tools. R4.4. Ineffective dissemination of policies and information leads to misunderstandings or lack of awareness. R4.5. Low participation or engagement from staff in surveys and feedback mechanisms. R4.6. Challenges in ensuring the privacy and security of data collected through questionnaires and surveys. R4.7. Receiving insufficient or low-quality feedback from students and staff affects the assessment of training and resources.

work packages. **WP6: Management** 6.1. Organise and implement the Kick-off Meeting to align all members on project objectives, timelines, and roles. 6.2. Organise and implement the Leader's weekly meeting to monitor project execution. 6.3. Organise and implement monthly Executive Board Meetings with Work Package leaders and institutional representatives to discuss progress and challenges. 6.4. Organise and implement the External Advisory annual Meeting for guidance and input from a panel of experts in the field. 6.5. Organise and implement the Midterm Meeting and Report to assess progress and develop strategies for achieving project goals.	training. PIn4.5.1 Completion rate of staff surveys. PIn4.5.2 Insights gathered on teaching resources and facilities. PIn4.6.1 Monitoring reports on social media and website interactions. PIn4.6.2 Adjustments made to the communication strategy based on feedback and interaction data. **WP5:Dissemination & exploitation** PIn5.1.1 Completion and implementation of the Communication Plan. PIn5.1.2 Consistency in visual identity and thematic discourse across communications. PIn5.2.1 Successfully launched and maintained the project website and social media profiles. PIn5.2.2 Engagement metrics (e.g., followers, likes, shares) on social media. PIn5.3.1 Regularity and frequency of updates on social networks and the website. PIn5.3.2 Reach and engagement of posted content (views, interactions). PIn5.4.1 The number of informational pieces proofread and supported. PIn5.4.2 Functionality and content updates on the science gateway website. **WP6: Management** PIn6.1.1, The organisation and completion of the meeting were successful. PIn6.1.2 Attendance records and participant feedback. PIn6.2.1 Regularity and attendance of these meetings. PIn6.2.2 Documentation and follow-up actions from each meeting. PIn6.3.1 Consistent scheduling and attendance of board meetings. PIn6.3.2 Meeting minutes reflecting discussions on progress and challenges. PIn6.3.1 Successful	engagement and feedback to gauge communication impact. **WP5:Dissemination & exploitation** 5.1 Evaluate the document of the completed Communication Plan. 5.2 Assess communication consistency and alignment with the established visual identity and thematic lines. 5.3 Monitor website and social media profile creation and updates. 5.4 Analyse engagement metrics such as followers, likes, shares, and comments. 5.5 Track the frequency and regularity of updates posted on social networks and the website. 5.6 Evaluate the reach and interaction of these updates (likes, shares, comments). 5.7 Count the informational pieces, reports, and articles supported and proofread. 5.8 Review updates and functionality of the science gateway website. **WP6: Management** 6.1 Review the meeting minutes and attendance records. 6.2 Analyse participant feedback. 6.3 Track the regularity and attendance of these meetings. 6.4 Evaluate the action items and decisions documented in meeting minutes. 6.5 Monitor the scheduling and attendance of these meetings. 6.6 Review the minutes for discussions on project progress and challenges. 6.7 Assess the organisation and outcomes of the meeting. 6.8 Analyse the contributions and feedback from advisory board members. 6.9 Evaluate the completion and content of the midterm report. 6.10 Assess the implementation of strategies and decisions made during the meeting.	**WP5 Risks** R5.1. If the communication plan fails to reach or engage the target audience effectively. R5.2. Difficulties in website development or maintaining social media platforms. R5.3. Limited human or financial resources for regular content creation and updates. R5.4. Challenges in producing high-quality, relevant content that resonates with the audience. R5.5. Poor coordination among content creation and dissemination teams. R5.6. Slow or ineffective mechanisms for collecting and acting on feedback from the community. **WP6 Risk** R6.1. Inefficiencies in organising and conducting meetings lead to team members' misalignment. R6.2. Lack of active participation or interest from project leaders, institutional representatives, or advisory board members. R6.3. Difficulty finding suitable meeting times accommodating all participants. R6.4. Failure to implement decisions or follow up on action items from meetings. R6.5. Poor documentation of meetings can hinder tracking progress and decision-making. .

	organisation and conduct of the annual meeting. PIn6.3.2 Engagement and input from the advisory board members. PIn6.4.1: Completing the midterm meeting and developing the report. PIn6.4.2 Evaluation of project progress and effectiveness of strategic changes.		

Project management, quality assurance and monitoring and evaluation strategy

Describe the measures foreseen to ensure that the project implementation is high quality and completed on 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.

High quality of the project's implementation and completion on time.

EL-BONGO Physics will achieve its goals effectively, ensuring high-quality outcomes and adherence to the planned timeline. We shall follow this recipe

Clear Project Plan and Timeline: We start with a detailed plan as a roadmap, outlining each implementation phase, including milestones, deliverables, and deadlines.

Dedicated Work Packages: The project is organised into six work packages, each managed by a coordinator and deputy coordinator. These WPs encompass preparation, installation, development, quality assurance, communication, and management. Specific tasks and deliverables are clearly defined to ensure effective execution.

Regular Monitoring and Reporting: We monitor each WP against set goals and timelines. Progress is assessed quarterly through reports, allowing for timely adjustments and maintaining project alignment.

Quality Assurance Plan: A thorough quality assurance strategy, including evaluation activities and quality control measures, is in place. The advisory board also conducts an external evaluation to guarantee that the project's objectives and standards are met.

Risk Management Strategy: Our approach includes contingency plans for identified risks and strategies to address unforeseen challenges, ensuring project resilience.

Stakeholder Engagement and Feedback: Weekly meetings prioritise regular engagement with partners. Student feedback is gathered biweekly before seminars, and this input is crucial for refining and improving the project.

Professional Development and Training: Faculty and staff involved in the project receive continuous training and professional development, equipping them with the digital skills and knowledge of the tools necessary for delivering high-quality work.

Use of Technology and Digital Tools: The project utilises the MiLAB platform for enhanced project management, communication, and implementation, leveraging the latest technology and digital tools.

Compliance with Ethical and Inclusion Standards: We strictly adhere to all relevant regulatory and ethical standards, ensuring all project activities are conducted responsibly and ethically.

Methods and indicators to monitor the coverage of activities and results

Implementing a robust evaluation framework that includes both quantitative and qualitative indicators is crucial. These indicators help monitor and verify the outreach, effectiveness, and impact of the project's activities and results. This balanced approach of relevant, realistic, and measurable quantitative and

qualitative indicators ensure comprehensive monitoring and verification of the EL-BONGO physics project's outreach and effectiveness.

Quantitative Indicators:

Enrollment and Completion Rates:

- Unit of Measurement: Number of students enrolled and the number who complete each training program.
- Baseline: Initial enrollment at the start of each program.
- Target: A predetermined percentage increase in enrollment and completion rates each year.

Diversity Metrics:

- Unit of Measurement: Percentage of students from diverse backgrounds (gender, ethnicity, country).
- Baseline: Diversity statistics at the onset of the project.
- Target: Specific percentage increases in diversity metrics.

Community MiLAB activity:

- Unit of Measurements (monthly):
  - Number of active users in each community.
  - An average number of messages sent per user.
  - Number of active channels/groups/repositories and average number of participants per channel/group/repositories.
  - Number of files shared, file sharing frequency, and collaborative document editing instances.
- Baseline: Initial usage data at the start of MiLAB operation.
- Target: Gradual increase in usage of channels and repositories projects.

Community FABLab activity:

- Unit of Measurement: Number of projects and hours of usage in FABLabs.
- Baseline: Initial usage data at the start of FABLab operations.
- Target: Gradual increase in usage hours and projects.

Research and Education Science Hub

- Unit of Measurements:
  - Number of active users, login frequency, and session durations.
  - The volume of data uploaded (MegaByte), downloaded and shared through the gateway.
  - Number of accesses to online tutorials and training materials.
- Baseline: Initial data is downloaded at the start of Science Hub each month of operations.
- Target: Gradual increase in usage in user number, MB downloaded/shared and tutorial accessed.

Community Research activity:

- Unit of Measurement: Number of shared research papers, technical reports, conference presentations, and thesis.
- Baseline: Number of outputs in the year before project initiation.
- Target: Annual increase in research outputs.

Partnership and Collaboration Metrics:

- Unit of Measurement: Number of MOUs, agreements or partnerships among EL-BONGO physics institutions.
- Baseline: Existing MOU/agreements/partnerships at the project's start.
- Target: Establishment of new partnerships each year.

Qualitative Indicators:

Student and Faculty Feedback:

- Method: Surveys and interviews are conducted annually.
- Focus: Satisfaction with the program, perceived value of the community curriculum, and suggestions for improvement.

Community Engagement and Impact:

- Method: Community surveys and feedback.
- Focus: Community involvement in projects, impact on local problems, and public engagement in science.

Quality of Community Research and Projects:

- Method: Peer reviews and expert evaluations from the associated research partner institutes.
- Focus: Innovative aspects, applicability, and contribution to the field.

Impact on Career Development:

- Method: Follow-up surveys with alums.
- Focus: Career progression, application of skills acquired, and professional achievements after finishing the community training program.

Institutional Changes and Adaptations:

- Method: Internal surveys and reports for each partner institution.
- Focus: Changes in institutional practices, adoption of digital tools, and shifts towards open science.

Monitoring and Evaluation Plan:

- *Regular Data Collection:* Qualitative data will be gathered via surveys, interviews, and feedback sessions. The data will be preserved and shared in the MiLAB platform.
- *Periodic Reviews:* Semi-annual reviews to assess progress against targets.
- Adjustment Mechanisms: Based on review findings, adjustments will be made to strategies or targets as necessary.
- *External Advisory Board Involvement:* The external advisory board is regularly involved in the semi-annual evaluation to ensure diverse perspectives.

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2.1.3 Project teams, staff and experts

Project teams and staff

Describe the project teams and how they will 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 critical actors (if required by the Call document/Programme Guide).

Name and function	Organization	Role/tasks	Professional profile and expertise
Franklin Iván Argueta Bermúdez Teacher AI and computer tools	UFG	Teacher AI-HPC RLC	Contribute to Mathematics, Statistics, Big Data, and Artificial Intelligence. ORCID 0000-0001-9798-8120
Oscar Rolando Baltuano Elías Senior Instrumentation Expert Responsible of the FABLab network deploiment	UNMSM	Teacher Leader WP2	Electronic Engineer, Master in Physics More than 20 years responsible of the Group of Radiation detection and alpha, beta, gamma and neutron spectrometry. ORCID **0000-0003-1767-7141**
Carlos Jaime Barrios Hernández Teacher Responsible for the AI community and the development of the	UIS	Teacher	High Performance and Scientific Computing, and emerging trends like Quantum and Circular/Sustainable Computing. Long experience in European projects ORCID **0000-0002-3227-8651**,
Ysabel Briceño-Romero Teacher, Responsible for EL-BONGO physics Communication strategy	UNAB	Teacher Leader of WP5	Expert in communication strategy. International consultant in Communications for several European Projects Analysis of digital communication environments, the role of e-research in social sciences and the relationship between mass media and democratic culture. ORCID 0000-0002-6605-6838
Gloria Buendía Teacher	USB	Teacher	Expert in condensed matter physics and statistical mechanics. ORCID 0000-0002-1250-7787

Reina Camacho Toro Teacher and part of the instrumentation team	CNRS	Teacher	Data analysis in particle physics and instrumentation R&D. CNRS leader in different groups in HEP at CERN. She actively participates in scientific capacity-building in Latin America and advocates for virtual research and learning communities to strengthen global scientific ties and modernise education. She was the deputy scientific coordinator of the LA-CoNGA physics ERASMUS+ CBHE project. ORCID 0000-0002-9192-8028.
Oscar Alberto Carrillo Rozo Teacher and part of the supervising team developing the Science Gateway system	CPE	Teacher	Software and model verification, middleware for pervasive computing, software architecture, and large-scale and distributed systems. ORCID 0000-0001-5081-1774
Dennis Cazar Ramírez Teacher	USFQ	Teacher	Design of Data Acquisition Systems for particle and radiation detectors. Coordinator of the Electronic Development group of LAGO Collaboration. Research engineer of BRL subsystem at CMS Collaboration ORCID 0000-0001-7587-8596
Manuel A. Florez Torres Teacher	UIS	Teacher	Near-surface geophysics and machine-learning approaches for exploring renewable energy resources. ORCID 0000-0003-1034-2082
Maria Claudia Coral Instructor IRO Community	UAN	Instructor	Director of International Relations UAN i member of the International Association of Universities and advisor to organisations seeking to develop impactful collaborations.
Kiara Guerra Instructor IRO Community	UNSQ	Instructor	General administrative and operational management of the Office of International Programs at Universidad San Francisco de Quito USFQ.
Raúl Henríquez Ortiz Teacher	UES	Teacher Deputy of WP4	Physics, and data analysis related to the Inflation epoch and primordial gravitational waves. ORCID 0000-0002-2566-6381
Alejandra Cruz Tovar Instructor IRO Community	UAN	Instructor	Coordinator of International Cooperation (UAN). Experience in technical cooperation modalities with local and international stakeholders; identification of funding opportunities and implementation of international projects.
Cesar Omar Jimenez Tintaya Teacher part of the Seismic Hazards community	UNMSM	Teacher	Tsunami dynamics, Seismology, Digital signal processing. ORCID 0000-0002-3671-4748
Bryan Obed Larios López Teacher	UNAH	Teacher Deputy WP3	Quantum field theory and its applications to the physics of black holes. ORCID 0000-0001-5368-5566
José Antonio López Rodríguez Teacher	UCV	Teacher responsible of the WP3	Theoretical high-energy physics, astroparticles and medical physics. ORCID 0000-0003-3613-3406
Miguel Martín Landrove Teacher	UCV	Teacher	Medical image processing, medical physics, tumour growth dynamics, and dynamic models of DNA and its associated biological processes. ORCID 0000-0002-1549-9444
Frédéric Le Mouël Teacher	INSA	Teacher	Distributed systems, operating systems, component and service-oriented middleware, virtual machines, programming languages, dynamic adapting, self-coordinating and autonomic environments. ORCID 0000-0002-7323-4057
Joany Manjarrés Ramos	UT3	Teacher	Data analysis, studying the Electroweak sector of the Standard Model of particle physics. ORCID 0000-0003-3896-5222

Teacher			
Angela MOCA LICCIARDI Instructor IRO Community	UT3	Instructor Coordinator IRO Community	Director of the International Cooperation Office with more than 15 years of experience in European projects engineering and management, acquired within several private and public institutions.
Gabriela Navarro. Senior Expert PI of EL-BONGO Physics	UAN	Project PI of WP6 Management, Teacher, HEP RLC	Argentinian particle physicist. Senior professor at Universidad Antonio Nariño, Colombia. She has expertise in data analysis in particle physics and detector performance. ORCID 0000-0002-5108-0042
Luis A. Núñez Senior Expert, responsible for the design and development of Science Gateway	UIS	Project, Teacher, Leader WP4	Long experience in participation in EU Project. CoPI of LA-CoNGA Physics Relativistic Astrophysics, Astroparticles, and Information Sciences. ORCID 0000-0003-4575-5899
José Ocaríz Senior Expert Co-PI of EL-BONGO Physics	UPCité	Project CoPI of, WP6 Management, Teacher, HEP RLC	French-Venezuela experimental particle physicist (0000-0003-2262-0780), senior professor atUniversité Paris Cité and a researcher at IN2P3. He has actively participated in several programs of scientific cooperation between France and Latin America, was coordinator of the LA-CoNGA physics ERASMUS+ CBHE project, and is currently coordinator of SEMA-ML, a recently approved CAPES-COFECUB binational cooperation project between France and Brazil. ORCID 0000-0003-2262-0780
Justo Hernán Ospino Zúñiga Teacher	USAL	Teacher	Gravitation and relativistic cosmology. ORCID 0000-0003-3135-9019
Hamilton Alexander Ponce Elias Teacher	UFG	Teacher	Optical and electronic characterisation of surface states in group II-VI colloidal quantum dots and the synthesis and optical and structural characterisation of carbon nanostructures. ORCID 0000-0001-7867-0862
Pierre Pujol Teacher	UT3	Teacher	Strongly correlated electronic systems, frustrated magnetism, and topological states of matter.
Carlos Rudamas Teacher	UES	Teacher	Femtosecond spectroscopy and vibrational dynamics in small molecules and reverse micelles. ORCID 0000-0001-8935-0944
Camilo Ruiz Méndez Teacher and responsible of community curriculum design	USal	Teacher Leader of WP1	Expert in Educational methods, Ultrafast laser physics and Science education. ORCID 0000-0001-9538-5780
Mario Rafael Ruiz Vargas Teacher	UFG	Teacher	Instrumentation, algorithms, and information technologies. ORCID 0000-0003-3156-782X
José Rodrigo Sacahui Teacher	USAC	Teacher	Gamma-ray data analysis of blazars and gamma-ray bursts. ORCID 0000-0001-5079-5559
José David Sanabria Gómez Teacher and promotor of the Seismic Hazards Community	UIS	Teacher and Deputy of WP1	High-energy physics applied to the study of volcanoes and computational modelling of large-magnitude earthquakes. ORCID 0000-0002-4217-3212
Jorge Stephany Teacher	USB	Teacher	Quantum Field Theory, Relativistic Physics, Quantum Information and Optics. ORCID 0000-0001-8132-2754
Teófilo Vargas Auccalla	UNMSM	Teacher	Theoretical physics, gravitation, cosmology and quantum information. ORCID 0000-0002-9833-3887

Teacher			

Outside resources (subcontracting, seconded staff)

If you still need to get 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.

In-kind contributions are vital to the project, encompassing staff time, equipment use, and access to facilities and resources. The co-funding primarily comes from partner HEIs) providing administrative and technical staff time, IT equipment for virtual courses, connectivity, and local space. Specific examples include

1. **Administrative Support and Resources**: UAN, UIS, and USFQ will offer administrative support and resources like Zoom rooms for virtual meetings, remote access, and collaboration connectivity.
2. **Access to High-Energy Physics Equipment**: Institutions such as UAN, UCV, USB, UIS, USFQ and UNMSM will provide access to High-Energy Physics Equipment financed by LA-CoNGA Physics. Technical staff from these institutions will assist in utilising this infrastructure.
3. **Computing Infrastructure**: UIS and SCALAC will make available computing infrastructure for the RLC. Additionally, CEDIA and RedCLaRa will facilitate the operation of MiLAB for the RLC in the EL-BONGO project.

Three critical activities require subcontracting:

1. **Software Development**: Coordinated by UIS and INSA, this requires a part-time team of software engineers and programmers, both junior and senior. Advanced students from UIS's computer school could be employed for these tasks.
2. **Prototyping and Testing of Scientific Instruments:** UNMSM and UAN will design, prototype, and test equipment fabricated at other FABLAB network nodes. This requires contracting advanced industrial or mechanical engineering students proficient in computer-aided design and manufacturing.
3. **Communication Campaigns and Their Effectiveness Evaluation:** Communication students will carry out periodic campaigns across various media, updating the community on the project's progress through seminars, meetings, workshops, and hackathons. They will also monitor social media and website interactions to assess the effectiveness of these campaigns, making necessary adjustments or creating new messages to optimise the communication strategy.

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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 the proposed results and objectives are most cost-effective.

Indicate the arrangements adopted for the financial management of the project and, in particular, how the consortium will allocate and manage the financial resources.

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

The budget for staff costs among partners was carefully balanced, considering the workload each team member intends to dedicate to the project. This approach was also applied to the budget for travel and living expenses. Student mobilities will primarily occur within Latin America to minimise transcontinental travel. Each partner country's HEI will offer two internships annually within Latin America.

A specialised financial management team at Antonio Nariño University will manage the finances centrally. This setup is particularly advantageous for managing travel and accommodation funds. For instance, tickets can be purchased from a single source, ensuring the best deals are obtained. If a student from one partner institution cannot travel, those funds can be reallocated to another HEI with a greater need for student mobility.

Regular financial monitoring and project evaluations will be conducted to ensure budget adherence and necessary adjustments. Each consortium member provides detailed financial reports every two months, correlating expenditures with project activities and progress. A contingency fund has also been established to cover unforeseen expenses, safeguarding the project's objectives from unexpected financial needs.

We utilise digital platforms like MiLAB for collaboration and training to further reduce costs, minimising the need for physical meetings and travel. This digital approach also broadens participation and facilitates resource sharing.

In the EL-BONGO physics project, remote instrument use represents a cost-effective strategy. This reduces infrastructure and operational expenses, increases accessibility, and enhances research efficiency. Central American students will have access to the HEP community's instrument infrastructure in eight Andean universities. Furthermore, the new equipment acquired through EL-BONGO physics will employ IoT protocols, simplifying remote usage.

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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 considering the mitigating measures.

***Note:** Uncertainties and unexpected events occur in all organisations, even well-run organisations. 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	Misalignment of Training Programs with Community Needs. Impact: High; Likelihood: Medium	WP1	Conduct thorough needs assessments and continuously dialogue with community members to ensure alignment.
2	Insufficient Engagement from Partner Institutions Impact: Medium; Likelihood: Medium	WP1, WP6	Develop clear communication channels and engagement protocols. Schedule regular meetings and progress reviews with all partners
3	Delays in Training Program development and approval within each community; Impact: Medium; Likelihood: Medium	WP1	Set realistic timelines with buffer periods and assign dedicated teams for curriculum development and approval processes in the communities.
4	Ineffective Community coordination among partner institutions; Impact: High; Likelihood: Medium	WP1, WP2, WP3, WP6	Establish clear communication protocols, assign liaison officers, and schedule regular coordination meetings.
5	*Technical Challenges with MiLAB for the Community Ecosystem and to to implement FABLab network Platforms* *Impact: High; Likelihood: Low*	WP2	Prioritize robust technical support and training for users. Conduct regular maintenance and updates of the platforms. Develop a backup plan for data storage and retrieval.
6	*Insufficient Expertise in Developing LA Science HUB;* *Impact: Medium; Likelihood: Low*	WP2	*Collaborate with technology experts in RedCLARA and CEDIA. Possibly outsourcing certain aspects and providing staff training in relevant digital tools.*
7	*Technical Issues with Science Hub Platform;* *Impact: High; Likelihood: Medium*	WP2	*Conduct extensive beta testing, have a dedicated IT support team, and develop a robust troubleshooting protocol.*
8	*Data Security and Privacy Concerns in Science Hub;* *Impact: High; Likelihood: Low*	WP2	*Implement state-of-the-art cybersecurity measures and conduct regular data privacy training and compliance checks*

9	*Changing Academic or Political Landscapes Affecting Collaboration;* *Impact: High; Likelihood: Low*	WP1, WP2, WP3, WP4, WP5, WP6	*Develop flexible strategies that can adapt to changes and maintain open lines of communication with all Institutional Representative.*
10	*Low Engagement or Participation in Training Programs; Impact: Medium; Likelihood: Medium*	WP2, WP3, WP6	*Implement engaging marketing strategies, incentivise participation, and tailor content to meet participant interests.*
11	*Insufficient Capacity to Accommodate All Students in Internship Programs;* *Impact: Medium; Likelihood: Medium*	WP3, WP6	*Establish partnerships with additional organisations for internships and create virtual internship opportunities.*
12	*Ineffective Coordination of Virtual Network School Events; Impact: Medium; Likelihood: Medium*	WP3, WP5, WP6	*Assign a dedicated event management team, conduct regular planning meetings, and use project management tools.*
13	*Inconsistent Quality Standards Across Partner Institutions* *Impact: High; Likelihood: Medium*	WP4	*Develop and implement a uniform set of quality standards and guidelines. Conduct regular training and workshops to ensure understanding and adherence.*
14	*Lack of Engagement in Quality Assurance Activities; Impact: Medium; Likelihood: Medium*	WP4, WP6	*Foster a quality and continuous improvement culture among all Institutional representatives. Recognise and reward contributions to quality enhancements.*
15	*Inadequate Monitoring and Evaluation Processes* *Impact: High; Likelihood: Medium*	WP4	*Establish a robust monitoring and evaluation framework with clear metrics and regular review meetings. Utilise external evaluators for unbiased assessments.*
16	*Inadequate Reach and Engagement in Dissemination Efforts* *Impact: High; Likelihood: Medium*	WP5, WP6	*Develop a multifaceted communication plan that includes digital and traditional media, community outreach, and stakeholder engagement activities. Utilise analytics to track engagement and adjust strategies accordingly.*
17	*Miscommunication of Project Achievements and Outcomes* *Impact: Medium* *Likelihood: Medium*	WP5	*Establish clear messaging guidelines, train team members on effective communication, and regularly review public materials for accuracy and clarity.*
18	*Lack of Media Interest or Coverage* *Impact: Medium; Likelihood: Low*	WP5, WP6	*Build relationships with media outlets and leverage social media influencers within the scientific community. Craft compelling narratives that highlight the project's uniqueness and relevance.*
19	*Over-reliance on Digital Platforms for Dissemination* *Impact: Low* *Likelihood: Medium*	WP5	*Diversify dissemination channels to include workshops, conferences, and print media. Ensure backup communication channels are in place*
20	*Ineffective Project Coordination and Oversight;* *Impact: High; Likelihood: Medium*	WP6	*Appoint experienced project managers, establish clear project governance structures, and hold regular project review meetings.*

21	*Conflicts within the Consortium** Impact: High; Likelihood: Medium*	WP6	*Develop a consortium agreement that clearly defines roles, responsibilities, and conflict resolution mechanisms.*
22	*Inadequate Documentation and Reporting Impact: Medium; Likelihood: Medium*	WP6	*Implement a centralised documentation system and provide training on reporting requirements and procedures.*
23	*Failure to Meet Milestones and Deliverables Impact: High; Likelihood: Medium*	WP6	*Establish a detailed project timeline with built-in buffers, conduct frequent progress checks, and adjust plans as necessary.*
24	*Budget Mismanagement Impact: Hig; Likelihood: Medium*	WP6	*Enforce strict financial controls, regular budget reviews, and audits. Use project management software for real-time budget tracking.*
25	*Staff Turnover and Loss of Expertise Impact: Medium; Likelihood: Medium*	WP6	*Implement a robust human resources plan, including cross-training, succession planning, and retention strategies.*

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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/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 alliance. The EL-BONGO physics alliance is a robust collaboration involving 30 institutions. This includes 18 beneficiary universities, with four from Europe and 14 from Latin America and 13 associated partners, which are

- three prominent international research organisations: CERN (European Organization for Nuclear Research), ICTP (International Centre for Theoretical Physics), and LAGO (Latin American Giant Observatory)
- Two national research centres CIEMAT (Centre for Energy, Environmental and Technological Research) in Spain and CNRS (National Centre for Scientific Research) in France.
- A regional research centre Mesoamerican Center for Theoretical Physics (MCTP)
- Three industrial partners from both Latin America and Europe, namely Frontier X (Colombia), DBAccess (Venezuela and Peru), E-Pisteme Tech (Spain).
- Four multilateral organisations: CEDIA (Ecuador), RedCLARA (Uruguay), LACChain (Uruguay), and LAReferencia (Uruguay).

EL-BONGO physics's diverse alliance combines academic and industrial expertise, ensuring a comprehensive and collaborative approach.

In the EL-BONGO physics project, each partner institution plays a specific role:

Experienced Beneficiary Universities from LA-CoNGA Network:
Université de Paris Cité (UPCité), Université de Toulouse III (UT3), Universidad Antonio Nariño (UAN), UIS, USFQ, and Universidad Nacional Mayor de San Marcos, (UNMSM) will share their expertise with the new member institutions. UAN will lead as the Principal Investigator institution, with UPCité as the Co-Principal Investigator, facilitating the transfer of administrative experience from Europe to Latin America.

Network Newcomer Beneficiary Universities: These institutions will bring their experiences and needs to build EL-BONGO

- **Universidad de Salamanca (USal)** will use its expertise in science education to help develop the modular master programs for the four Regional Learning Communities.

- **Institut Nationale de Sciences Appliquées of Lyon INSA Lyon** offers knowledge in Artificial Intelligence and High-Performance Computing, which is crucial for the RLC ecosystem.
- **Universidad Autónoma de Bucaramanga (UNAB)** contributes experience in science communication and strategies for project communication.
- **ESPOCH** represents a regional Ecuadorian public university.
- The EL-BONGO physics project targeted Central American Benficiarty Universities (**UES, UFG, USAC, UNAH**) for their regional significance.

Associated Partners as International Research Centers:

- **CERN and ICTP** organisations will provide guidance based on their experience in organising large scientific collaborations. bring significant benefits like Access to Cutting-Edge Research and Facilities, International Networking Opportunities and Enhanced Visibility and Credibility of the EL-BONGO physics project. The ICTP, in particular, aims to support scientific growth in developing countries. This aligns well with EL-BONGO's goal of enhancing physics education and research in Latin America,
- **LAGO** will assist in organising the Space Weather community.

Associated Partners as National Research Centers:

- **CIEMAT and CNRS,** This association brings significant advantages to the EL-BONGO project by enhancing research quality, providing training and development opportunities, facilitating international collaboration, and raising the project's global profile. CIEMAT, in particular, has powerful cooperation with EU-LAC projects concerning Information Technology and High-Performance computing.
- The **MCTP,** as an ally in the EL-BONGO Physics project, can significantly enhance the project's capabilities in theoretical physics in terms of research and education with strong links with the physics community in the Central American region.

Associated Industrial Partners:

- **E-Pisteme Tech, Frontier X, and DBAccess** will offer industrial internship opportunities for students. This organisation brings the industrial experience and visión to EL-BONGO, including courses and activities linking the Academic and Industry. Additionally, they offer opportunities for industrial student internships.
- **RedCLARA and CEDIA**, as educational and research network organisations, will assist in designing and disseminating the Hub for Science and Education.
- As multilateral organisations, **LAReferencia and LACChain** will focus on disseminating publications of the community ecosystem, while LACChain will contribute to developing a blockchain system to certify modules in the community master courses.

2.2.2 Consortium management and decision-making

Consortium management and decision-making (if applicable)

Explain the consortium's management structures and decision-making mechanisms. 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.*

As displayed in Figure 3, the structure indicates a comprehensive governance framework with clearly defined roles and responsibilities, ensuring that each aspect of the project is given focused attention and managed effectively. The organisational structure of the EL-BONGO physics project is hierarchical and consists of several key components:

External Advisory Board (EAB): This is the topmost body in the structure, whose role is to provide external oversight and strategic advice to the project. It comprises world-level experts in the domains of interest of the project. The EAB will be appointed by the leading external partners' institutions like CERN, CIEMAT, and ICTP, choosing staff with experience in capacity building and managing complex projects and good knowledge of the Physics landscape in Latin America. A designated Equality, Diversity and Integration Officer (EO) will ensure diversity in the LA-CoNGA Physics activities. The EAB meets yearly to receive the report of these activities

Central Management Team: Within the dashed box, there is a central management team that includes:

- *The LA Chair (PI)*: Gabriela Navarro from UAN, the lead chair from Latin America, appears to be the principal investigator or project coordinator. PI chairs the Executive Board and is likely responsible for the overall coordination of the project, ensuring that the different components and teams are working in sync towards the project goals.

- *The EU Chair (Co-PI):* The Co-Principal Investigator is the European Union (EU) counterpart to the LA Chair. The Co-PI will be José Ocaríz, from Université of París Cité
- *Project Manager (PM)*: Responsible for the day-to-day management of the project. The Project Manager (PM) will support the PI, and the Co-PI will be hired and based in Bogotá, Colombia.

Work Packages (WPs): These are different segments of the project, each with a specific focus:

- WP #1: Preparation. It is responsible for community development (including the IRO community) and the training program development.
- WP #2: Development & Installation of Tools. This WP is responsible for setting and operating the FABLab network (designing the installations, procuring the equipment, and training personnel) and developing the Science Gateway system.
- WP #3: Training & Education. Implements student cohorts across communities, trains students and newcomer teachers to use the MiLAB platform, and ensures its maintenance and user support; it also prepares administrative staff through bi-monthly seminars and workshops for the IRO personnel.
- WP #4: The Quality Plan WP conducts detailed evaluation activities to consistently enhance the project and its outcomes.
- WP #5: Dissemination & Exploration. This package's core focus is to spread awareness and ensure the long-term sustainability of the project's outcomes.
- *WP #6: Management.* This package is essential for the efficient implementation of the project. It focuses on providing tools for effective communication among consortium partners.

Executive Board (EB): This board includes the PI, the Co-Pi, the PM, and one representative from each partner and Work Package leader. The Project Coordinator also chairs the Executive Board. The decisional body is the EB.
Partners: These Institutional representatives, including beneficiaries, associates, and affiliates, are involved in the project. They are likely responsible for executing the project's activities and contributing expertise, resources, and personnel.

The PI reports to the EAB, a group of international experts in relevant fields. Members of the EAB, appointed by leading partner institutions, bring expertise in capacity building, complex project management, and knowledge of the scientific community in Latin America. An appointed Equality, Diversity, and Integration Officer (EO) will oversee diversity initiatives within the EL-BONGOPhysics activities.

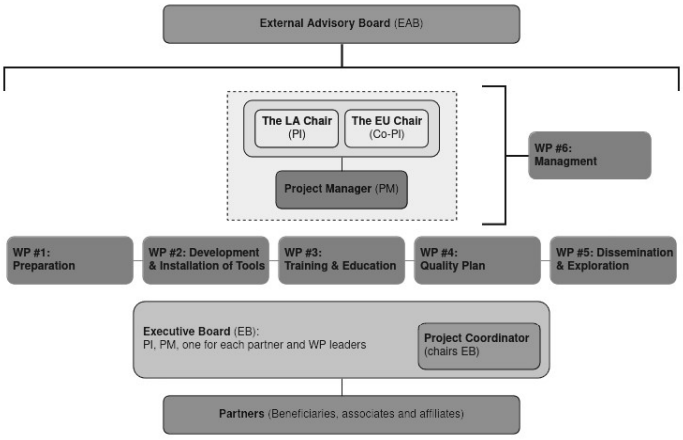

Figure 3 Management structure of EL-BONGO physics project

The PI and Co-PI will collaborate with the PM should funding be secured. This collaboration includes preparing the Consortium Agreement, overseeing project execution, managing funds, reviewing finances, organising audits, ensuring effective communication, arranging supervisory board meetings, and overseeing all network activities. The PM's role includes daily operations, facilitating communication, adhering to timelines, and meeting deliverables.

The EB, the project's central decision-making entity, comprises representatives from the PI and Co-PI institutions, the PM, one representative from each beneficiary partner, and Work Package leaders. Chaired by the PI, the EB meets bi-monthly to review progress, address challenges, and make decisions. Weekly operational meetings for the Work Package are also scheduled.

Any significant changes to the program, such as travel internships, require EB approval. If these changes impact contractual obligations, consent from the EC Project Officer is needed. The project also maintains gender balance in decision-making processes.

Plenary EB meetings, which include representatives from associated partners, are less frequent, occurring every six months or as necessary. These meetings evaluate the progress of work packages and exchanges, making optimal selections for student/staff benefits. The EB is also tasked with developing strategies for sustaining cooperation post-project and expanding interest among other Institutional representatives.

EL-BONGO physics will use the MiLAB communication and management platform. We will create a communication channel in the ChatLab tool dedicated to each work package and task equipment. The ChatLab board's environment will be used as project management software, and virtual meeting platforms will be established for regular updates and information exchange. All documents with their versions will be preserved in the GLab tool. Continuous monitoring of project progress, financial expenditures, and risk management would be essential, with regular reporting to the EB.

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3. IMPACT

3.1 Impact and Ambition

Impact and ambition

Please address each guiding point 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 EL-BONGO physics project is strategically positioned to generate significant short-, medium-, and long-term impacts, aligning with the guiding points presented in the Call document/Programme Guide under the 'Impact' criterion. This project is designed to transform higher education and scientific research in Central America and the Andes by fostering digital transformation and interdisciplinary collaboration.

Short-Term Effects

- **Enhanced Learning Environment:** Immediate enhancement of the educational experience for students in participating institutions through innovative digital tools and methodologies.
- **Faculty Development:** Educators and researchers will gain access to advanced digital platforms and training, enabling them to incorporate modern teaching and research methods.
- **Institutional Strengthening:** Participating institutions will see an immediate upgrade in their technological infrastructure and capabilities, setting the stage for more advanced scientific research and education.

Target Groups: Students, educators, researchers, and institutional administrators.

Concrete Benefits: Improved educational quality, enhanced research capabilities, and increased digital literacy.

Medium-Term Effects

- **Establishment of Research-Learning Communities (RLCs):** Developing robust RLCs that facilitate interdisciplinary research and shared learning experiences.
- **Increased Scientific Output:** There is a tangible increase in quality research publications, conferences, and seminars showcasing the region's intellectual capabilities.
- **Regional Collaboration:** Strengthened relationships and collaboration among universities and research institutions across Central America and the Andes.

Target Groups: Academic and research communities and local and regional educational institutions.

Concrete Benefits: A more collaborative and innovative academic environment, leading to a higher calibre of research and education.

Long-Term Effects

- **Sustainable Scientific Ecosystem:** Long-lasting transformation of the higher education and research landscape in Central America and the Andes, with established pathways for continuous innovation and collaboration.
- **Global Recognition and Influence:** Enhanced global standing of the region's scientific and academic communities, attracting international collaborations and funding.
- **Societal Impact:** Broad societal impacts through developing a scientifically literate populace and applying research findings to address regional challenges.

Target Groups: Entire academic sectors in Central America, the Andes, policymakers, and wider society.

Concrete Benefits: Long-term academic excellence, increased international visibility, and a society more engaged with and informed by science.

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3.2 Communication, dissemination and visibility

Communication, dissemination and visibility of funding

Describe the communication and dissemination activities planned 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 Institutional Representatives, policymakers and the general public and explain the choice of the dissemination channels.

Describe how the visibility of EU funding will be ensured.

EL-BONGO physics Project will ensure consistent visibility aligned with stakeholder groups based on a Communication Plan outlined in the initial phase. This will enable the identification of opportunities and risks in project communication, along with tracking the most effective mechanisms to connect project expectations with diverse audiences.

All of the above involves collaborative work with a team of communication professionals who, in dialogue with project participants, craft clear and coherent narratives about management, achieved results, and the potential social impact of the knowledge areas it encompasses.

As a guiding framework for communication, WP5 will define stages to:

- Define visual identity (including visibility of funding entities and participating institutions).
- Define thematic lines, allowing for a coherent construction of derived discourses.
- Guide spokesperson roles.
- Manage timely and effective information about the generated progress.
- Define communication strategies distributed through the defined project channels.

For project communication, the following is proposed:

Opportunity detection: In its initial phase, all communication stages should involve a professional creative team researching and monitoring key moments of the project for discourse construction and message communication to different audiences.

Collaboration with liaison group: The responsible team will establish ongoing conversations with a project liaison group to discuss specific communication ideas.

Concept: Once the communication idea is approved, the responsible team will define the concept (objectives, strategy, resources, channels, spokespeople) and discuss it again with the liaison team, who, in turn, inform the consortium if complex campaigns or ideas requiring discussion emerge.

Information gathering and message construction: Once the concept is approved, the creative team will gather the relevant information, address specific spokespersons, if applicable, and construct the message with the selected resources. The liaison team will review the content. If there are spokespeople, they will also be notified of the final message before the contents are published.

Message publication: Depending on the concept, the message will be published on the official website and/or respective social media platforms, with necessary adaptations. If deemed appropriate, the content will be sent to the communication offices of partner institutions (via email) and/or linked to the accounts of other project members to promote the (re)distribution of messages to local and national contexts.

Monitoring: The communication team will monitor social media and website interaction, generating messages or adjusting communication as necessary.

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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 sustainability and continuation of the EL-BONGO physics project post-EU funding are crucial to ensuring lasting impact and benefits. A comprehensive plan is in place to maintain momentum and build upon the project's achievements.

Ensuring and Sustaining Impact

1. Institutional Integration and Ownership:

- Strategy: Embed the project's methodologies and practices into participating institutions' core curricula and research agendas.
- Action: Formal agreements and integration plans with each institution.
- Resources: Institutional support, continued staff involvement.

2. Community and Network Strengthening:

- Strategy: Sustain and expand the Research-Learning Communities (RLCs).
- Action: Establish alum networks, ongoing collaborative projects, and regular community events.
- Resources: Community coordinators, digital platform maintenance.

Long Term Post-Funding

1. Maintenance of Digital Infrastructure:

- Parts to Continue: MiLAB and FABLab infrastructures.
- Achievement: Regular updates and maintenance, potential subscription models.
- Resources: Technical support teams, subscription fees or institutional funding.

2. Ongoing Training and Development

- Parts to Continue: Training programs, workshops, and webinars.
- Achievement: Regularly scheduled events, integration with institutional offerings.
- Resources: Expert facilitators, online platforms.

3. Research and Collaboration

- Parts to Continue: Collaborative research projects and publications.
- Achievement: Continued collaboration agreements and joint research initiatives.
- Resources: Research staff, collaborative tools.

Utilisation of Results

- Practical Application: Results will be applied in academic and research settings, influencing teaching methodologies and research approaches.
- Policy Influence: Insights will be shared with policymakers to influence educational and scientific policies.
- Continued Dissemination: Ongoing sharing of findings through publications, conferences, and digital media.

Synergies and Complementarities

- Building on EU Activities: Potential collaboration with other EU-funded education, technology, and research projects.
- Networking with Similar Initiatives: Joining similar projects for knowledge exchange and collaborative ventures.
- Utilisation of Established Platforms: Leveraging existing EU platforms and networks for dissemination and further development.

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

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)).

EL-BONGO physics project's work plan is structured into six work packages (WPs), each with specific objectives and activities. The WPs cover areas such as preparation, development and installation of tools, training and education, quality assurance, dissemination and exploration, and overall project management. The responsibilities within each work package are allocated among the partner institutions, considering their respective areas of expertise and balanced experience.

The working organisation. The collaborative efforts of these 30 institutions are organised into six distinct WPs.
Work Package 1 (WP1), Preparation, is coordinated by USal with USAC as the Deputy. This package includes three dedicated task forces:

1. **Community Development Task Force:** This group focuses on establishing four research and learning communities. Their approach includes roundtable discussions, brainstorming sessions, and focus groups to help the communities define their research goals and objectives. This task force also aims to develop a governance framework for managing community activities and resources, ensuring efficiency and responsible management.
2. **Syllabus Development Task Force**: This team is responsible for customising and adapting the community training program from the LA-CoNGA syllabus. The program will consist of short, modular courses similar to a master's program. This task force also plays a role in shaping the academic life of the community, including mentorship assignments and organising educational activities like seminars and workshops.
3. **International Relations Office (IRO) Task Force:** This group bridges the institution and the international academic community. IROs are vital in identifying and securing international research opportunities, including funding. In the EL-BONGO physics project, this task force, supported by UT3, UAN, and USFQ in collaboration with RedCLARA, aims to enhance capabilities in building and managing international projects. It focuses on exchanging knowledge and skills between Latin America and Europe.

Work Package 2 (WP2) focuses on developing and installing Tools. It is coordinated by the UNMSM, with the UES acting as Deputy. WP2 encompasses three main tasks:

1. **FABLab Network Task Force**: This task force builds upon WP1 recommendations concerning equipment needs identified by all participating communities. Its responsibilities include determining the necessary equipment, procuring it, managing its installation and training the personnel at each partner institution.
2. **Community Ecosystem Task Force**: This task involves deploying the MiLAB platform and providing training to teachers. It aims to identify and foster synergies and collaborative opportunities among the communities, especially in using AI and computational tools to enhance the activities of the other three communities. Additionally, this task force organises inter-community activities like workshops, seminars, hackathons, and citizen science projects to promote collaboration and a shared sense of purpose.
3. **Science and Education Hub Task Force**: This task force is responsible for developing a MiLAB inter-community collaboration space within the RLC ecosystem. It will implement MiLAB intercommunity tools, such as the G-lab environment for code and document sharing (including projects, publications, theses, and dissertations), utilise CompLab for scientific computations, and employ DataLab for research data preservation. The task force will also set up ChatLAB, an inter-community communication platform featuring online forums, discussion groups, and collaborative spaces.

Work Package 3 (WP3), Training and Education, is overseen by the UCV, with UNAH as its Deputy. The primary objective is to develop all master courses for the four RLCs. There are three critical teams:

1. **Course Planning and Operation Task Force**: this team implements student cohorts across communities. It develops internship plans to encourage student mobility. This task force also undertakes an international school after each student cohort.
2. **MiLAB Task Force**: Managed by UIS, this group trains students and newcomer teachers to use the MiLAB platform and ensures its maintenance and user support.
3. **IRO Community Task Force**: This task force prepares administrative staff through bi-monthly seminars and workshops, offering theoretical and practical international relations training.

Work Package 4 (WP4), Quality Plans, is under the leadership of UIS, with UT3 acting as the Deputy. The primary focus of WP4 is on conducting detailed evaluation activities to enhance the project and its outcomes consistently. This package has two distinct levels: planning and actions.

- **Develop strategic planning** for the project, including the General Quality Assurance Plan, the Code of Conduct and Gender Policy, and the Data Management Plan.
- **Internal Quality Assurance** is evaluated every six months by the EB meetings. Involves: Online questionnaires targeted current and former students, gathering insights about the quality of their training; Staff surveys to assess teaching resources and facilities; Inquiries directed at associated partners regarding student performance during their mobility scheme.

- **External Quality Assurance:** is evaluated by the EAB yearly. Entails: Evaluating the Community Curricula and their implementation feasibility; analysis of the results from the mobility scheme; a review of the operation of the FABLab Network; and an assessment of the performance of the Science Gateway

Work Package 5 (WP5), Dissemination, Awareness, and Exploitation, is coordinated by the UNAB, with the UFG as Deputy. The core focus of this package is to spread awareness and ensure the long-term sustainability of the project's outcomes. It seeks to communicate project results extensively to relevant groups and Institutional representatives. This will be accomplished through various communication strategies, including media outreach, presentations at congresses, workshops, participation in citizen science projects, and publications.

Work Package 6 (WP6), Management, is led by UAN with UPCité as Deputy. This package is essential for the efficient implementation of the project, focusing on providing tools for effective communication among consortium partners. It includes establishing clear timelines, offering guidance for internal/external project reporting and organising two face-to-face partner meetings. These meetings are intended to facilitate idea exchange and collaborative work towards the project's goals while keeping costs within the allocated budget.

4.1 Work plan

WORK PACKAGES

This section concerns a detailed description of the project activities.

*Group your activities into work packages. **A work package means a major sub-division of the project**. For each work package, enter an objective (expected outcome) and list the activities, milestones and deliverables that belong to it. The grouping should be logical and guided by identifiable deliverables/outputs.*

Projects should typically have a minimum of 2 work packages. WP1 should cover the management and coordination activities (meetings, coordination, project monitoring and evaluation, financial management, progress reports, etc.) and all the activities which are cross-cutting and, therefore, difficult to assign to another specific work package (do not try splitting these activities across different work packages). WP2 and further WPs should be used for the other project activities. You can create as many work packages as needed by copying WP1. The last WP should be dedicated to Impact and dissemination

Please refer to the Call document/Programme Guide for specific requirements concerning the number and the typology of work packages.

Work packages covering financial support to third parties (⚠ only allowed if authorised in the Call document/Programme Guide) must describe the conditions for implementing the support (for grants: max amounts per third party; criteria for calculating the exact amounts, types of activity that qualify (closed list), persons/categories of persons to be supported and criteria and procedures for giving support; for prizes: eligibility and award criteria, amount of the prize and payment arrangements).

⚠ *Enter each activity/milestone/output/outcome/deliverable only once (under one work package).*

⚠ *Ensure consistency with the detailed budget table/calculator (if applicable). (n/a for prefixed Lump Sum Grants)*

Objectives

List the specific objectives to which the work package is linked.

Activities and division of work (WP description)

Provide a concise overview of the work (planned tasks). Be specific and give a short name and number for each task.

*Show who is participating in each task: Coordinator (COO), and if applicable, Beneficiaries (BEN), Affiliated Entities (AE), Associated Partners (AP) and others, indicating **in bold** the task leader.*

Add information on other participants' involvement in the project, e.g. subcontractors, and in-kind contributions.

Note:

In-kind contributions: In-kind contributions for free are cost-neutral, i.e., they cannot be declared cost. Please indicate the in-kind contributions that are provided in the context of the work package.

The Coordinator remains fully responsible for the coordination tasks, even if delegated to someone else. Coordinator tasks cannot be subcontracted.

If there is subcontracting, please also complete the table below.

Milestones and deliverables (outputs/outcomes)

***Milestones** are control points in the project that help chart progress (e.g., completion of a key deliverable allowing the next phase of the work to begin). Use them only for major outputs in complex projects, otherwise leave the section empty. Please limit the number of milestones by work package.*

Means of verification are how you intend to prove that a milestone has been reached. If appropriate, you can also refer to indicators.

***Deliverables** are project outputs submitted to show project progress (any format). Refer only to major outputs. Do not include minor sub-items, internal working papers, meeting minutes, etc. Limiting the number of deliverables to max 10-15 for the entire project is recommended. You may be asked to reduce the number further during grant preparation.*

For deliverables such as meetings, events, seminars, training, workshops, webinars, conferences, etc., enter each deliverable separately and provide the following in the 'Description' field: invitation, agenda, signed presence list, target group, number of estimated participants, duration of the event, report of the event, training material package, presentations, evaluation report, feedback questionnaire.

For deliverables such as manuals, toolkits, guides, reports, leaflets, brochures, training materials etc., add in the 'Description' field: format (electronic or printed), language(s), approximate number of pages and estimated number of copies of publications (if any).

For each deliverable you will have to indicate a due month by when you commit to upload it in the Portal. The due month of the deliverable cannot be outside the duration of the work package and must be in line with the timeline provided below. Month 1 marks the start of the project, and all deadlines should be related to this starting date.

The labels used mean:

Public — fully open (⚠ automatically posted online on the Project Results platforms)

Sensitive — limited under the conditions of the Grant Agreement

EU classified — RESTREINT-UE/EU-RESTRICTED, CONFIDENTIEL-UE/EU-CONFIDENTIAL, SECRET-UE/EU-SECRET under Decision 2015/444. For items classified under other rules (e.g. national or international organisation), please select the equivalent EU classification level.

Work Package 1

Work Package 1: [Preparation]			
Duration:	M1 - M7	**Lead Beneficiary: Universidad de Salamanca and Universidad de San Carlos**	USal (Coord) USAC (Deputy)

Objectives

- Prepare the groundwork for the EL-BONGO physics project by establishing functional research communities,
- Developing a comprehensive and tailored educational syllabus for each RLC,
- Enhancing international collaboration and project management skills of the consortium.

Activities and division of work (WP description)

Task No	Task Name	Description	Participants		In-kind Contributions and Subcontracting
T1.1	Building RLC Communities	Articulate each community's research purpose and objectives, ensuring a focused and goal-oriented approach to scientific endeavours. Establish the governance framework to manage the community's activities and resources effectively, ensuring smooth operations and responsible stewardship. Establish policies and guidelines that uphold ethical conduct, facilitate data sharing, and promote inclusion and gender equity in our collaborative work. Planning of annual seminars, workshops and hackathons	**UPCité,** UCV, USAC and community members	BEN	NO
T1.2	Community Syllabus and academic life	Define the community training program adapting the syllabus from LA-CoNGA model	**USal,** USFQ, UNAH and community members	BEN	NO
T1.3	IRO Community	Identify the skill, profiles and activities of the IROs in the partner consortium	**UT3,** UAN, USFQ, RedCLARA UCV, USB, UIS, ESPOCH, UNMSM, USAC, UFG, , UES, UNAH	BEN, AP	No
T1.4	IRO Training Program	Establish the IRO training program (content, methodology and training responsible)	**UT3,** UAN, USFQ, RedCLARA UCV, USB, UIS, ESPOCH, UNMSM, USAC, UFG, UES, UNAH	BEN, AP	No

Milestones and deliverables (outputs/outcomes)

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

MS1.1	Researchers trained in MiLAB	1	UIS	Researches of all RLC (including IRO) trained in MiLAB facilities		M4	Number of reseachers/teachers trainned
MS1.2	RLC website	1	USAC	All RLC website available with all information about the community		M6	Access to each website
Deliverable No	Deliverable Name	Work Package No	Lead Beneficiary	Type	Dissemination Level	Due Date (month number)	Description (including format and language)
D1.1	Report on RLC	1	USal	R	SEN	M6	A report describing how to implement and operate each RLC: Members, responsible parties, research topics, equipment needed, and training program. It will also include the IRO particular case. Format: electronic doc in a repository. 60-80pg Language: English

WP1 Estimated budget — Resources (n/a for prefixed Lump Sum Grants)

Participant	Costs													
	A. Personnel [Pers/month |Eur]		B. Subcontract	C.1a Travel			C.1b Accomod	C.1c Subsist	C.2 Equipment	C.3 Goods and services	D.1 Support to third parties		E. Indirect costs	Total costs
UPCité	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UT3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INSA	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USal	1	5600	0	0	0	0	0	0	0	0	0	0	0	5600
UIS	1	1600	0	0	0	0	0	0	0	0	0	0	0	1600
UAN	2	4320	0	0	0	0	0	0	0	0	0	0	0	4320
UNAB	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USFQ	0	0	0	0	0	0	0	0	0	0	0	0	0	0

EsPoCh	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UES	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UFG	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USAC	1	2160	0	0	0	0	0	0	0	0	0	0	0	2160
UNAH	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNMSM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UCV	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USB	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	5	13680	0	0	0	0	0	0	0	0	0	0	0	13680

Work Package 2

Work Package 2: Development			
Duration:	M5 - M24	**Lead Beneficiary: Universidad Nacional Mayor de San Marcos. Deputy Universidad Industrial de Santander**	UNMSM (Coord), UIS (Deputy)

Objectives

- Develop a FABLab Network: Determining Community Equipment Needs. Coordinating the Procurement and Installation of each FABLab.
- Build the RLC ecosystem by fostering synergies and collaboration among communities, Organizing Inter-Community Activities, and training teachers
- Develop a Science Gateway to harvest and disseminate all the contents produced by the RLC ecosystem. Creating a space within the RLC ecosystem.

Activities and division of work (WP description)

Task No	Task Name	Description	Participants		Subcontracting
			Name	Role	
T2.1	FABLab Setup	Determine the required physical infrastructure for each RLC: 3D printers, laser cutters, CNC, and various electronic supplies/tools. Compiling a list of requirements for installing the determined equipment at each partner Univ.	**UNMSM,** UAN, UPCite, USAC, UFG and ESPOCH	BEN	No

T2.2	Integration of Instrumentation Course	Adapts the instrumentation course for each RLC, incorporating project-based learning for collaboration and developing modules combining theory and practice in digital fabrication for balanced skill acquisition.	UNMSM, **UAN,** UPCite, USAC, UFG and ESPOCH	BEN	No
T2.3	Online Workshops and Training Sessions	Developing online workshops with all partner FABLabs (*train-the-trainers*), covering machinery operation to advanced techniques, supported by online resources	**UNMSM**, UAN, UPCite, USAC, UFG, and ESPOCH	BEN	No
T2.4	Operational FABLab Network	The FABLab network fully operational, with two hubs for prototyping and testing. The G-LAB tool shares design updates	UNMSM, UAN, UPCite, USAC, UFG, ESPOCH	BEN	YES, designer or engineer subcontracted in UAN and UNMSM to design and prototype scientific instruments Advanced student
T2.5	Inter-Community Activities: Synergy, and Collaboration Opportunities	Through roundtable discussions, brainstorming sessions, and focus groups with all RLC, look for potential areas of synergy and collaboration, especially in leveraging AI and computational tools. This shared training approach ensures that while each community retains its uniqueness, there are common areas of learning that benefit all members. Implement inter-community activities like workshops, seminars, hackathons, and citizen science initiatives.	**USFQ**, USAC, UES, UNAH, USAL, UPCite	BEN	No
T2.6	Science Gateway requirements, planning and design	Conduct interviews with community members. Document functional and non-functional requirements, user roles, content types, interaction features, and security measures. Define the architecture of the Science Gateway, ensuring scalability, performance, and integration with MiLAB. Use UI/UX Design interface to tailor the diverse needs of different community members	**UIS,** INSA, UFG, CEDIS, RedCLARA, CIEMAT	BEN	YES Software Engineer or senior programmer advanced student
T2.7	Science Gateway Development Process, Testing, Stressing, and Quality Assurance	Implement an agile development process with iterative sprints and regular feedback. Create a MiLAB collaboration space in the RLC ecosystem, integrating G-lab, CompLab, and DataLab. Develop ChatLAB and APIs for EL-BONGO physics community service integration. Conduct extensive testing of application integration points. Perform user acceptance of alpha and beta testing with actual users to ensure portal functionality, usability, and reliability.	**UIS,** INSA, UFG, CEDIS, RedCLARA, CIEMAT	BEN	Yes

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
MS2.1	Purchase orders	2	UAN	Purchase orders the FABLab equipment and supplies	M4	Mail sent to the equipment providers
MS2.2	FABLab Installation	2	UNMSM	All FABLab equipment Installed	M12	Pictures of the equipment, videos of its operation
MS2.3	Science Gateway Beta testing release	2	UIS	Beta Release the Science Gateway for partner testing. include performance evaluations, user feedback sessions, and iterative improvements based on the outcomes of these tests.	M20	Web access to the Science Gateway
MS2.4	The official launch of the Science Gateway	2	UIS	Involves training sessions, workshops, or webinars to familiarise users with the gateway's functionalities and encourage its adoption	M24	Survey opinion among the partners

Deliverable No	Deliverable Name	Work Package	Lead Beneficiary	Type	Dissemination Level	Due Date	Description
D2.1	FABLabs from A to Z	2	UNMSM	R	SEN	M20	Especifying the needs for a FABLab installation. Requirements of space, ventilation, power, furniture, space, safety, storage for chemicals and reagents, and data communication infrastructure. The installation and operation of the equipment and network operation Format: electronic doc in a repository. 80-100pg Language: English

D2.2	EL-BONGO physics Science Gateway	2	UIS	R	SEN	M24	Detailed report including requirements specification, Project Plan and Design Specifications; Documentation, API and Integration; Compliance and Security; Guidelines, Content Curation; Testing and Quality Assurance Plans; Training Materials; Maintenance. Format: electronic doc in a repository. 80-100pg Language: English
D2.3	Repository for datasets, experimental workflows, and computational tools	2	UNMSM	DATA	SEN	M24	Establish an open-access digital repository for datasets, experimental workflows, and computational tools used within EL-BONGO.
D2.4	Report on VRLC engagement across the network for FabLab tools & skilss	2	USAL	R	SEN	M24	Report on VRLC engagement across the network of partner institutions using digital FabLab tools & skills in Science

WP2 Estimated budget — Resources (n/a for prefixed Lump Sum Grants)

Participant	Costs													
	A. Personnel [Pers/month]	[Eur]	B. Subcontrac	C.1a Travel			C.1b Accomod	C.1c Subsisten	C.2 Equipment	C.3 Goods and services	D.1 Support to third parties		E. Indirect costs	Total costs
UPCité	1	5600	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5600.0
UT3	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
INSA	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

USal	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
UIS	3	5360	18144	0.0	0.0	0.0	0.0	0.0	17268.0	0.0	0.0	0.0	0.0	40772.0
UAN	6	11840	19602	0.0	0.0	0.0	0.0	0.0	11693.7	0.0	0.0	0.0	0.0	43135.7
UNAB	1	1600	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1600.0
USFQ	0	0	0	0.0	0.0	0.0	0.0	0.0	15290.3	0.0	0.0	0.0	0.0	15290.3
EsPoCh	0	0	0	0.0	0.0	0.0	0.0	0.0	22186.7	0.0	0.0	0.0	0.0	22186.7
UES	1	2160	0	0.0	0.0	0.0	0.0	0.0	25261.3	0.0	0.0	0.0	0.0	27421.3
UFG	0	0	0	0.0	0.0	0.0	0.0	0.0	25261.3	0.0	0.0	0.0	0.0	25261.3
USAC	0	0	0	0.0	0.0	0.0	0.0	0.0	25261.3	0.0	0.0	0.0	0.0	25261.3
UNAH	0	0	0	0.0	0.0	0.0	0.0	0.0	25261.3	0.0	0.0	0.0	0.0	25261.3
UNMSM	2	3760	15876	0.0	0.0	0.0	0.0	0.0	18528.1	0.0	0.0	0.0	0.0	38164.1
UCV	0	0	0.0	0.0	0.0	0.0	0.0	0.0	14991.0	0.0	0.0	0.0	0.0	14991.0
USB	0	0	0.0	0.0	0.0	0.0	0.0	0.0	14991.0	0.0	0.0	0.0	0.0	14991.0
Total	14	30320	53622.0	0.0	0.0	0.0	0.0	0.0	215994.0	0.0	0.0	0.0	0.0	299936.0

Work Package 3

Work Package 3: Training and Education			
Duration:	M13 - M36	**Lead Beneficiary: Universidad Central de Venezuela and Universidad Nacional Autónoma de Honduras**	UCV (Coord) UNAH (Deputy)

Objectives

- Implement two student cohorts for each community. Schedule the corresponding modules for the training community courses (disciplinary and transversal)
- Develop internship plans and organise various academic activities, including seminars, workshops, conferences, hackathons and International schools.

Activities and division of work (WP description)

Task No	Task Name	Description	Participants		Subcontracting
			Name	Role	
T3.1	Cohort-Based Learning Structure	Schedule the corresponding modules for the training community courses (disciplinary and	**UCV,** UNAH, UIS UAN, USAC, UFG, UT3,	BEN	No

		transversal). Establish continuous feedback mechanisms to track student progress.	UPCite, USal, INSA, UNAB, USFQ, UNMSM		
T3.2	Internship Program	Develop internship plans to promote student mobility. Manage and monitor the internship programs, ensuring they provide meaningful learning experiences.	UCV, **UNAH,** UIS UAN, USAC, UFG, UT3, UPCite, USal, INSA, UNAB, USFQ, UNMSM	BEN	No
T3.3	Virtual International School:	Organise a one-week virtual network school after each student cohort to provide additional learning opportunities, foster community engagement, and benefit the broader community ecosystem.	UCV, UNAH, **UIS** UAN, USAC, UFG, UT3, UPCite, USal, INSA, UNAB, USFQ, UNMSM	BEN	No
T3.4	Academic Extracurricular Activities:	Plan and execute various academic activities such as seminars, workshops, conferences, and hackathons. Incorporate citizen science activities to engage students with social responsibility.	UCV, UNAH, UIS UAN, **USAC**, UFG, UT3, UPCite, USal, INSA, UNAB, USFQ, UNMSM	BEN	No

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
MS3.1	Launching First Cohort Community training program	3	UCV and UNAH	Presentation of the program courses' contents and staff in charge to the students.	M12	Video recording of the event
MS3.2	Launching Second Cohort Community training program	3	UCV and UNAH	Presentation of the program courses' contents and staff in charge to the students.	M24	Video recording of the event

Deliverable No	Deliverable Name	Work Package	Lead Beneficiary	Type	Dissemination Level	Due Date (month number)	Description (including format and language)
D3.1	Ecosystem training program report	3	UCV and UNAH	R	SEN	M36	Report describing the two-year operation of the academic program. Include impact statistics from surveys. Format: electronic doc in a

							repository. 80-100pg Language: English
D3.2	Report on workshops and training sessions on digital skills	3	UCV	R	SEN	M32	Conduct workshops and training sessions on digital skills (e.g., AI, data analysis, big data management) tailored to the needs of physics and related disciplines .

WP3 Estimated budget — Resources (n/a for prefixed Lump Sum Grants)

Participant	Costs													
	A. Personnel [Pers/month |Eur]		B. Subcontrac	C.1a Travel			C.1b Accomod	C.1c Subsisten	C.2 Equipment	C.3 Goods and services	D.1 Support to third parties		E. Indirect costs	Total costs
UPCité	4	18440	0	0	0	0	0	0	0	0	0	0	0	18440
UT3	2	8560	0	0	0	0	0	0	0	0	0	0	0	8560
INSA	2	8560	0	0	0	0	0	0	0	0	0	0	0	8560
USal	3	14160	0	0	0	0	0	0	0	0	0	0	0	14160
UIS	4	6960	0	6	6	2574	4500	4500	0	0	0	0	0	18534
UAN	7	13440	0	4	4	1716	3000	3000	0	0	0	0	0	21156
UNAB	3	4800	0	4	4	1716	3000	3000	0	0	0	0	0	12516
USFQ	3	4800	0	4	4	1716	3000	3000	0	0	0	0	0	12516
EsPoCh	3	4800	0	6	6	2574	4500	4500	0	0	0	0	0	16374
UES	3	4800	0	6	6	2574	4500	4500	0	0	0	0	0	16374
UFG	2	3200	0	5	5	2145	3750	3750	0	0	0	0	0	12845
USAC	3	4800	0	6	6	2574	4500	4500	0	0	0	0	0	16374
UNAH	3	5360	0	5	5	2145	3750	3750	0	0	0	0	0	15005

UNMSM	3	4800	0	5	5	2145	3750	3750	0	0	0	0	0	14445
UCV	5	8560	0	5	5	2145	3750	3750	0	0	0	0	0	18205
USB	3	4800	0	4	4	1716	3000	3000	0	0	0	0	0	12516
Total	53	120840	0	60	60	25740	45000	45000	0	0	0	0	0	236580

Work Package 4

Work Package 4: Quality Plan,			
Duration:	M3 - M36	Lead Beneficiary: Universidad Industrial de Santander and Universidad de El Salvador	UIS (Coord) and UES (Deputy)

Objectives

- Develop the Quality Assurance Plan for the project, the Code of Conduct, the Gender Policy, and Data Management Plan.
- Develop regular evaluations to follow up on the evolution of the different WP task and feedback mechanisms,

Activities and division of work (WP description)

Task No	Task Name	Description	Participants		Subcontracting
			Name	Role	
T4.1	Quality Assurance Plan for the project	Develop and implement a General Quality Assurance Plan that outlines the procedures and standards to ensure the quality of the project.	**UPCité,** UAN and UES	BEN	No
T4.2	Code of Conduct and a Gender Policy	Formulate a Code of Conduct and a Gender Policy to guide the behaviour and promote inclusivity within the project.	UT3, and **USB**	BEN	No
T4.3	Data Management Plan	Create a Data Management Plan to outline how data will be handled, stored and shared throughout the project.	**INSA,** and UFG	BEN	No
T4.4	Student's online questionnaires	Design and implement online questionnaires to collect feedback from current and former students about the quality of their training.	**USal,** UCV and UNAH	BEN	No

T4.5	Staff surveys	Design and conduct staff surveys to evaluate teaching resources and facilities.	USAC, UNMSM and UIS	BEN	No
T4.6	Communication Effectiveness	Post-publication monitor social media and website interactions (the project, communities and Science Gateway) to gauge the effectiveness of the messaging, making adjustments or generating new messages as needed to optimise the communication strategy.	**UIS,** UNAB, UES, UT3, UAN	BEN	Yes Communicator or Journalist advanced student

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
MS4.1	First year of survey for staff and students	4	UIS and UES	Implement and evaluate the surveys for staff and students about the quality of the training (courses and internships) the conduct of the staff and the teaching resources and facilities	24	The results of the surveys and their evaluation
MS4.2	Second year of survey for staff and students	4	UIS and UES	Implement and evaluate the surveys for staff and students about the quality of the training (courses and internships), the conduct of the staff and the teaching resources and facilities	36	The results of the surveys and their evaluation

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	MidTerm Report	4 and 6	UAN, UPCité, UIS and UES	R	SEN	23	An exhaustive report concluding the first year of courses, aimed at assessing the overall quality of the project and identifying improvement for the upcoming year. Format: electronic doc in a repository. 80-100pg Language: English
D4.2	First cohort of survey for staff and students	4	USAC	R	SEN	25	Report on the results of the survey of first-cohort

							including staff and students.

WP4 Estimated budget — Resources (n/a for prefixed Lump Sum Grants)														
Participant	Costs													
	A. Personnel [Pers/month |Eur]		B. Subcontract	C.1a Travel			C.1b Accomod	C.1c Subsist	C.2 Equipment	C.3 Goods and services	D.1 Support to third parties		E. Indirect costs	Total costs
UPCité	1	5600	0	0	0	0	0	0	0	0	0	0	0	5600
UT3	1	5600	0	0	0	0	0	0	0	0	0	0	0	5600
INSA	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USal	1	5600	0	0	0	0	0	0	0	0	0	0	0	5600
UIS	1	2160	0	0	0	0	0	0	0	0	0	0	0	2160
UAN	3	6480	0	0	0	0	0	0	0	0	0	0	0	6480
UNAB	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USFQ	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ESPOCH	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UES	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UFG	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USAC	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNAH	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNMSM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UCV	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USB	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	7	25440	0	0	0	0	0	0	0	0	0	0	0	25440

Work Package 5

Work Package 5: Dissemination, Awareness, and Exploitation.			
Duration:	M1 - M36	**Lead Beneficiary: Universidad Autónoma de Bucaramanga and Universidad Francisco Gavidia**	UNAB (Coord) and UFG (Deputy)

Objectives

- Enhancing Project Visibility and Outreach
- Promoting Knowledge Dissemination and Engagement
- Boosting the Importance of Open Science and Digital Education

Activities and division of work (WP description)

Task No	Task Name	Description	Participants		Subcontracting
			Name	Role	
T5.1	Communication Plan	Development and Implementation of the Communication Plan. Define the project's visual identity, thematic lines for coherent discourse construction, roles of spokespersons, and mechanisms for timely information sharing about the project and the community's progress.	**UNAB,** UIS, UFG	BEN	No
T5.2	Website and social network profile	Develop the website and social network profile of the project and the four research communities	**UNAB,** and UIS	BEN	Yes, a Journalist and a graphical designer, junior programmer Advanced Student
T5.3	Periodic information feeds in social networks and the website	Periodic campaign in different media posting the advance of the project, the community and project activities (seminars, meetings and workshops, hacktons); the opening of new cohorts courses; the network schools	**UNAB** and UCV	BEN	Yes a Journalist or Communicator student
T5.4	Communication support for other WPs	Support and proofreading for other WP developing pieces of information, reports, and conference communications, journal articles. Develop and maintain the science gateway website	UNAB, UNMSM, UIS, **UAN,**	BEN	Yes a Journalist or communicator student

Milestones and deliverables (outputs/outcomes)							
Milestone No	Milestone Name	Work Package	Lead Beneficiary	Description		Due Date	Means of Verification
MS5.1	Project Website and social network profile	5	UNAB	Launch of the project website and first post in social networks		M3	Access to the project website and social network
MS5.2	Community Websites and social network profiles	5	UNAB	Launch of the website for each community		M6	Access to the community websites and social network
MS5.3	500 post landmark	5	UNAB	Reach the 500 post in all the network profile		M20	Access to the community social network profiles
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	Communication Plan	5	UNAB	R	SEN	M3	Develop a Communication Plan outlining strategies for sharing project information, including visual identity, thematic discourse, spokesperson roles, and progress mechanisms. Communicate objectives, achievements, and social impact to diverse audiences. Format: electronic doc in a repository. 80-100pg Language: English

WP5 Estimated budget — Resources (n/a for prefixed Lump Sum Grants)														
Participant	Costs													
	A. Personnel [Pers/month |Eur]		B. Subcontract	C.1a Travel			C.1b Accomod	C.1c Subsist	C.2 Equipment	C.3 Goods and services	D.1 Support to third parties		E. Indirect costs	Total costs
UPCité	0	0	0	0	0	0	0	0	0	0	0	0	0	0

UT3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INSA	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UIS	1	2160	0	0	0	0	0	0	0	0	0	0	0	2160
UAN	5	10800	0	0	0	0	0	0	0	0	0	0	0	10800
UNAB	4	7520	16956	0	0	0	0	0	0	0	0	0	0	24476.0
USFQ	1	2160	0	0	0	0	0	0	0	0	0	0	0	2160
EsPoCh	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UES	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UFG	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USAC	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UMG	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNAH	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNI	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNMSM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UCV	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USB	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	11	22640	16956	0	0	0	0	0	0	0	0	0	0	39596

Work Package 6

Work Package 6: Management			
Duration:	M1 - M36	**Lead Beneficiary: Universidad Antonio Nariño and Université Paris Cité**	UAN (coord) and UPCite (Deputy)
Objectives			
▪ Implementing robust and user-friendly communication mechanisms to simplify seamless interaction among consortium partners.			

- Establishing and maintaining detailed project timelines to ensure timely completion of each phase and project objectives.
- Providing comprehensive guidelines for consistent and accurate internal and external reporting, ensuring all Institutional representatives are informed about progress and challenges.
- Monitor and manage the project budget to ensure all activities are cost-effective and financial resources are optimally employed.

Activities and division of work (WP description)

Task No	Task Name	Description	Participants		Subcontracting
			Name	Role	
T6.1	EL-BONGO physics Kick-off meeting	This initial meeting brings together all institutional members, allowing for a shared understanding of project objectives, timelines, roles, and responsibilities. It is an opportunity to build team cohesion and align everyone's expectations.	**UAN,** UPCité and UIS	BEN	No
T6.2	WP leader meeting	Short weakly meeting with WP leaders to follow up the project execution	UAN, **UPCité,** UNMSM, USal, UIS, and UNAB	BEN	No
T6.3	Executive Board Meetings	Monthly meeting with WP leaders and Institutional representative to inform the advances and execution problems	**UAN** and All the consortium institutions	BEN	No
T6.4	External Advisory Meetings	Anual Meeting with the External Advisory Board	**UAN,** UPCité and UIS	BEN	No
T6.5	Midterm meeting and report	Midterm meeting to evaluate the advances of the project and the strategic changes needed to accomplish all project goals	**UPCité** All the consortium institutions	BEN	No

Milestones and deliverables (outputs/outcomes)

Milestone No	Milestone Name	Work Package	Lead Beneficiary	Description	Due Date	Means of Verification
MS6.1	First EAB meeting	6	UAN, UPCite	It provides an unbiased perspective on the project's progress, helping identify strengths and improvement areas.	M12	Meeting Minutes
MS6.2	Midterm meeting	6	UAN, UPCite	Midterm meeting to evaluate the advances of the project and the strategic changes needed to accomplish all project goals	M18	Meeting Minutes

MS6.3	Second EAB meeting	6	UAN, UPCite	It provides an unbiased perspective on the project's progress, helping identify strengths and improvement areas.		M24	Meeting Minutes
MS6.4	Third EAB meeting	6	UAN, UPCite	It provides an unbiased perspective on the project's progress, helping identify strengths and improvement areas.		M35	Meeting Minutes
Deliverable No	Deliverable Name	Work Package	Lead Beneficiary	Type	Dissemination Level	Due Date	Description
D6.1	Quality assurance mid-term Report (Management)	6	UAN	R	SEN	M18	The midterm report is crucial for assessing progress, identifying challenges, ensuring efficient resource utilisation, and making necessary adjustments to stay on track towards achieving project goals. Format: electronic doc in a repository. 80-100pg Language: English

WP6 Estimated budget — Resources (n/a for prefixed Lump Sum Grants)														
Participant	Costs													
	A. Personnel [Pers/month |Eur]		B. Subcontrac	C.1a Travel			C.1b Accomod	C.1c Subsisten	C.2 Equipment	C.3 Goods and services	D.1 Support to third parties		E. Indirect costs	Total costs
UPCité	1	5600	0	4	4	5504	1040	1040	0	0	0	0	0	13184
UT3	0	0	0	4	4	5504	1040	1040	0	0	0	0	0	7584
INSA	0	0	0	4	4	5504	1040	1040	0	0	0	0	0	7584
USal	0	0	0	4	4	5504	1040	1040	0	0	0	0	0	7584
UIS	1	2160	0	6	6	2574	1560	1560	0	0	0	0	0	7854

UAN	8	17280	0	6	6	2574	1560	1560	0	0	0	0	0	22974
UNAB	0	0	0	2	2	858	520	520	0	0	0	0	0	1898
USFQ	0	0	0	4	4	1716	1040	1040	0	0	0	0	0	3796
EsPoCh	0	0	0	2	2	858	520	520	0	0	0	0	0	1898
UES	0	0	0	3	3	1287	780	780	0	0	0	0	0	2847
UFG	0	0	0	3	3	1287	780	780	0	0	0	0	0	2847
USAC	0	0	0	3	3	1287	780	780	0	0	0	0	0	2847
UMG	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNAH	0	0	0	3	3	1287	780	780	0	0	0	0	0	2847
UNI	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNMSM	0	0	0	6	6	2574	1560	1560	0	0	0	0	0	5694
UCV	1	2160	0	4	4	1716	1040	1040	0	0	0	0	0	5956
USB	0	0	0	4	4	1716	1040	1040	0	0	0	0	0	3796
Total	11	27200	0	62	62	41750	16120	16120	0	0	0	0	0	101190

Staff effort *(n/a for Lump Sum Grants)*

Staff effort per work package

Fill in the summary on work package information and effort per work package.

Work Package No	Work Package Title	Lead Participant No	Lead Participant Short Name	Start Month	End Month	Person-Months
1	Preparation	4	USal	1	7	5
2	Developing and Tools	16	UNMSM	5	24	21
3	Training and Education	17	UCV	13	36	53
4	Quality Plans	5	UIS	3	36	7

5	Dissemination, Awareness, and Exploitation	7	UNAB	1	36	12
6	Management	6	UAN	1	36	23
					Total Person-Months	121

Staff effort per participant

Fill in the effort per work package and Beneficiary/Affiliated Entity.

Please indicate the number of person/months over the whole duration of the planned work.

*Identify the work-package leader for each work package by showing the relevant person/month figure in **bold**.*

Participant	WP1	WP2	WP3	WP4	WP5	WP6	Total Person-Months
UPCité	0	1	4	1	0	1	7
UT3	0	0	2	1	0	1	4
INSA Lyon	0	0	2	0	0	1	3
USal	1	0	3	1	0	1	6
UIS	1	3	4	1	1	1	11
UAN	2	6	7	3	5	8	31
UNAB	0	1	3	0	4	1	9
USFQ	0	1	3	0	1		6
EsPoCh	0	1	3	0	0	1	5
UES	0	1	3	0	0	1	5
UFG	0	1	2	0	0	1	4
USAC	1	1	3	0	0	1	6
UNAH	0	1	3	0	0	1	5
UNMSM	0	2	3	0	0	1	6
UCV	0	1	5	0	0	1	7

USB	0	1	3	0	0	1	5
	5	21	53	7	11	23	120

Subcontracting (n/a for prefixed Lump Sum Grants)

Subcontracting

Give details on subcontracted project tasks (if any) and explain the reasons why (as opposed to direct implementation by the Beneficiaries/Affiliated Entities).

Subcontracting — Subcontracting means the implementation of 'action tasks', i.e. specific tasks which are part of the EU grant and are described in Annex 1 of the Grant Agreement.

***Note:** Subcontracting concerns the outsourcing of a part of the project to a party outside the consortium. It is not simply about purchasing goods or services. We normally expect that the participants to have sufficient operational capacity to implement the project activities themselves. Subcontracting should therefore be exceptional.*

Include only subcontracts that comply with the rules (i.e. best value for money and no conflict of interest; no subcontracting of project coordination tasks).

Work Package No	Subcontract No	Subcontract Name	Description	Estimated Costs	Justification	Best-Value-for-Money
2	S2.1	Design and prototype scientific instruments be fabricated in LABFab Installation	Industrial designer or engineer subcontracted in UAN and UNMSM to design and prototype scientific instruments. Task T2.4	25677.0 Euros	Engineers possess the technical skills to create prototypes that are not only innovative but also reliable and user-friendly. Their involvement ensures that the instruments meet specific scientific requirements and are feasible to produce within the FABLab environment.	This team will work in a close supervision by our partners at UAN and UNMSM The design will be tested by each RLC and fabricated at distinct installations. WP4 will perform surveys to guarantee the quality
2	S2.2	Science gateway Software development	Junior and Senior programmers to design, develop and test the Science Gateway System. These team will work in UIS and UAN and corresponds to task T2.8, T2.9, T2.10, T2.11 and T2.12	27945.0 Euros	Hiring a software developer team for the EL-BONGO physics Science Gateway is essential for their expertise in creating a user-friendly and efficient platform. They ensure the system is tailored, scalable, and reliable, integrating the latest technologies and conducting thorough testing.	This team will work in a close supervision by our partners at UIS and INSA who have experience in software development

5	S5.1	Develop information pieces (text, audio, videos) disseminated through different means	Junior Journalist hired to create information pieces which illustrate the project advances	16956.0 Euros	Journalists bring expertise in crafting clear, engaging narratives that effectively convey complex project details to diverse audiences, ensuring broader outreach and understanding. Art designers contribute by creating visually compelling materials, making communication more accessible and appealing.	This team communication will work in a close supervision by our partners at UNAB and UAN who have experience Science Communication

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	Institutional representative	Kickoff meeting	Starting meeting of the project	The kickoff meeting sets the tone for the entire project, bringing together all institutional members, allowing for a shared understanding of project objectives, timelines, roles, and responsibilities.	Ciudad de Guatemala	4	31
E1.2	Institutional representative	Midterm Meeting	Mid project meeting	A midterm meeting is crucial for managing the EL-BONGO physics project. It assesses	Bogotá Colombia	4	31

				progress, identifies challenges, ensures efficient resource utilisation, and makes necessary adjustments to achieve project goals.			
E1.3	Internship students	Academic Internship first cohort	Research Student Internship in other institute of the LA region	The students develop a three month internship doing a research project	Different institute of the LA region	90	30
E1.4	Internship students supervisors	First Virtual International EL-BONGO physics School	Research Workshop	The students discuss the results of their research internship. Invited Speakers present recent advanced in the community fields	Different institute of the LA region	3	75
E1.5	Internship students	Academic Internship second cohort	Research Student Internship in other institute of the LA region	The students develop a three month internship doing a research project	Different institute of the LA region	90	30
E1.6	Internship students supervisors	Second Virtual International EL-BONGO physics School	Research Workshop	The students discuss the results of their research internship. Invited Speakers present recent advanced in the community fields	Different institute of the LA region	3	75

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. You may add additional columns if your project is longer than 6 years.*

ACTIVITY	YEAR 1	YEAR 2	YEAR 3

	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4
T1.1 - T1.2 - T1.3 - T1.4												
T2.1 - T2.2 - T2.3												
T2.4												
T2.5												
T2.6												
T2.7												
T3.1												
T3.2												
T3.3												
T3.4												
T4.1												
T4.2 - T4.3												
T4.4 - T4.5												
T4.6												
T5.1 -T5.2												
T5.3												
T5.4												
T6.1												
T6.2 - T6.3												
T6.4												
T6.5												

#§WRK-PLA-WP§#

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.*
EL-BONGO physics promotes gender equality, inclusion, and equity in higher education. We adopt an open project approach, similar to the successful model of LA-CoNGA Physics, to provide equal opportunities to all. Our beneficiaries and partners are dedicated to fostering inclusion and diversity, taking proactive steps to address inequalities and empower women and minorities within our group. Our commitment to inclusion and diversity is unwavering, and we will align our efforts with the policies of each university to ensure these values are integrated into all our activities. In addition, EL-BONGO physics strives to increase the presence of highly qualified women in our courses and seminars, offering them role models to inspire students. We will officially adopt the EU gender toolkit and provide specialised training sessions for all our group members to enhance their awareness of equality and diversity issues. To oversee our efforts, EL-BONGO physics will appoint an internal Equality, Diversity, and Integration Officer who will actively participate in discussions related to building communities (T1.1) and creating the Code of Conduct and Gender Policy (T4.2).

#§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.
Insert text

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§#

ANNEXES

LIST OF ANNEXES

Standard
Detailed budget table/Calculator (annex 1 to Part B) — *mandatory for certain Lump Sum Grants (see Portal Reference Documents)*
CVs (annex 2 to Part B) — *mandatory, if required in the Call document/Programme Guide*
Annual activity reports (annex 3 to Part B) — *not applicable*
List of previous projects (annex 4 to Part B) — *mandatory, if required in the Call document/Programme Guide*

Special
Other annexes — *mandatory, if required in the Call document/Programme Guide*

LIST OF PREVIOUS PROJECTS

List of previous projects *Please provide a list of your previous projects for the last 4 years.*					
Participant	Project Reference No and Title, Funding programme	Period (start and end date)	Role (COO, BEN, AE, OTHER)	Amount (EUR)	Website (if any)
[name]					
[name]					

HISTORY OF CHANGES		
VERSION	PUBLICATION DATE	CHANGE
1.0	25.02.2024	Initial version (new MFF).
2.0	01.11.2024	**-Budget Modification**: Updated to align with the budget approved by the EU. **- Removal of Partners**: Universidad Mariano Gálvez (UMG) in Guatemala, which has opted not to participate, and Universidad Nacional de Ingeniería (UNI) in Peru, the interlocutor has moved to another University and has not responded to our communications. **- Reallocation of Resources**: UMG's funding and effort redistributed among the remaining Central American universities, and UNI's funding and effort reallocated to other Andean universities. **- Additional Deliverables**: Inclusion of D2.3, D2.4, and D4.2. **- Removal of Deliverable**: Exclusion of D6.2 (final report). **- Deliverable Classification Change**: Certain deliverables changed from PU to SEN.

Proposal ID	Call for Proposal	Topic	Type of Action
SEP-211026747	ERASMUS-EDU-2024-CBHE	ERASMUS-EDU-2024-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 Colombia
Country El Salvador
Country Guatemala
Country Peru
Country Venezuela
Country Ecuador
Country Honduras
Country France
Country Spain

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 methods (including school development)
- ☐ Reaching the policy level/dialogue 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,
- ☐ Health

and mathematics (STEM)

- ☐ Bio technology
- ☐ Social inclusion
- ☐ Law
- ☐ Agriculture
- ☐ Finance
- ☐ Social sciences
- ☐ Migration
- ☐ European Studies
- ☐ Business - Marketing
- ☐ Other(s)
- ☐ Active citizenship
- ☐ Humanities
- ☐ Public administration
- ☐ Economy

Pedagogies:

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

Target groups:

- ☑ Students
- ☑ Administrative Staff
- ☑ Researchers
- ☐ Other(s)
- ☑ Academic staff
- ☐ 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:

200

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 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

☐ 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 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
7	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):

0

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:
8	2	3

Number of updated study programmes:	Number of study programmes with practical placements:
2	4

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:
3	4

Number of new services/facilities created (only for CB-VET actions):
0

Number of new or modernised international offices created (only for CB-HE actions):
7

Persons reached

Number of persons reached:

Male	Female	Non-binary
90	60	0

Total persons reached:
150

Persons with fewer opportunities addressed by the project

Number of people with disabilities 3	**Number of people with health problems** 0	**Number of people who face barriers linked to cultural differences** 4
Number of people who face barriers linked to education and training systems 35	**Number of people who are facing social barriers** 12	**Number of people addressed by the project who are facing economic barriers** 30
Number of people who are facing barriers linked to discrimination 10	**Number of people who are facing geographical barriers** 40	

Total number of persons with fewer opportunities addressed by the project
134

Students/university staff reached:

Number of students/university staff reached
200

Number of students following the courses/study programme (at Bachelor, Master, PhD level) (only for CB-HE actions)
150

Number of students/staff with practical placements (only for CB-HE actions)
150

Number of researchers reached (only for EUROPEAN UNIVERSITIES actions)
150

Number of academic staff trained (only for EUROPEAN UNIVERSITIES and CB-HE actions)
30

Number of university administrative staff trained (only for EUROPEAN UNIVERSITIES and CB-HE actions)
20

Number of people trained who are not enrolled in HEIs (only for CB-HE actions)
0

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)

60

0

Number of exchanges

60

Virtual exchanges:

Number of participants involved in mobilities with a Digital Erasmus Opportunity (only for VIRTUAL EXCHANGES actions)

150

How many types of training (online courses) does the project offer (only for VIRTUAL EXCHANGES actions)?

11

Number of young participants engaged in virtual exchanges (only for VIRTUAL EXCHANGES actions)

0

Number of facilitators/moderators/hosts engaged in virtual exchanges (only for VIRTUAL EXCHANGES actions)

0

Number of university assistents/lecturers/professors engaged in virtual exchanges (only for VIRTUAL EXCHANGES actions)

30

ANNEX 2

ESTIMATED BUDGET (LUMP SUM BREAKDOWN) FOR THE ACTION

	Estimated EU contribution						
	Estimated eligible lump sum contributions (per work package)						Maximum grant amount[1]
	WP1 Preparation	WP2 Development	WP3 Training and Education	WP4 Quality Plan	WP5 Dissemination, Awareness, and Exploitation	WP6 Management	
Forms of funding	Lump sum contribution	Lump sum contribution	Lump sum contribution	Lump sum contribution	Lump sum contribution	Lump sum contribution	
	a	b	c	d	e	f	g = a + b + c + d + e + f
1 - UAN	4 320.00	43 135.70	21 156.00	6 480.00	10 800.00	22 974.00	108 865.70
2 - UIS	1 600.00	40 772.00	18 534.00	2 160.00	2 160.00	7 854.00	73 080.00
3 - UNAB	0.00	1 600.00	12 516.00	0.00	24 476.00	1 898.00	40 490.00
4 - ESPOCH	0.00	22 186.70	16 374.00	0.00	0.00	1 898.00	40 458.70
5 - USFQ	0.00	15 290.30	12 516.00	0.00	2 160.00	3 796.00	33 762.30
6 - USAL	5 600.00	0.00	14 160.00	5 600.00	0.00	7 584.00	32 944.00
7 - INSA LYON	0.00	0.00	8 560.00	0.00	0.00	7 584.00	16 144.00
8 - UPCité	0.00	5 600.00	18 440.00	5 600.00	0.00	13 184.00	42 824.00
9 - UT3	0.00	0.00	8 560.00	5 600.00	0.00	7 584.00	21 744.00
10 - USAC	2 160.00	25 261.30	16 374.00	0.00	0.00	2 847.00	46 642.30
11 - UNAH	0.00	25 261.30	15 005.00	0.00	0.00	2 847.00	43 113.30
12 - UNMSM	0.00	38 164.10	14 445.00	0.00	0.00	5 694.00	58 303.10
13 - UES	0.00	27 421.30	16 374.00	0.00	0.00	2 847.00	46 642.30
14 - UFG	0.00	25 261.30	12 845.00	0.00	0.00	2 847.00	40 953.30
15 - USB	0.00	14 991.00	12 516.00	0.00	0.00	3 796.00	31 303.00
16 - UCV	0.00	14 991.00	18 205.00	0.00	0.00	5 956.00	39 152.00
17 - CERN							
18 - CNRS							
19 - ICTP							
20 - CIEMAT							
21 - RedCLARA							
22 - CEDIA							
23 - frontier x							
Σ consortium	13 680.00	299 936.00	236 580.00	25 440.00	39 596.00	101 190.00	716 422.00

[1] The 'maximum grant amount' is the maximum grant amount fixed in the grant agreement (on the basis of the sum of the beneficiaries' lump sum shares for the work packages).

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

Universidad Industrial de Santander (UIS), PIC 997938038, established in Ciudad Universitaria-carrera 27 calle 9, Bucaramanga, Colombia,

hereby agrees

to become beneficiary

in Agreement No 101179251 — EL-BONGO ('the Agreement')

between UNIVERSIDAD ANTONIO NARINO (UAN) **and** the **European Education and Culture Executive Agency (EACEA)** ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and mandates

the coordinator to submit and sign in its name and on its behalf any **amendments** to the Agreement, in accordance with Article 39.

By signing this accession form, the beneficiary accepts the grant and agrees to implement it in accordance with the Agreement, with all the obligations and terms and conditions it sets out.

SIGNATURE

For the beneficiary

Hernan PORRAS DIAZ with ECAS id nporrher signed in the Participant Portal on 17/12/2024 at 13:31:49 (transaction id SigId-11760-FQjHzIr U5JZHVqG9RIm4yYDAyh1AUKYN8tn0cwq8bBNudY29mtOIMgIcnjWfic BN5D9iUvhB8HzKa0yqfofdKC-yntOf97TTHqOEyh6VidCjq-0VHVEq6Z0 d2NWIrUQoUzT8zcYslatHDINSAvjDP0CGv3RTkJacS1szkcD0GI6rT1SsxS demITxRiwUzNaSuVGju). Timestamp by third party at 2024.12.17 13:31:55 CET

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

UNIVERSIDAD AUTONOMA DE BUCARAMANGA (UNAB), PIC 924353741, established in AVENIDA 42 NRO. 48-11, CAMPUS EL JARDIN, BUCARAMANGA 680003, Colombia,

hereby agrees

to become beneficiary

in Agreement No 101179251 — EL-BONGO ('the Agreement')

between UNIVERSIDAD ANTONIO NARINO (UAN) **and** the **European Education and Culture Executive Agency (EACEA)** ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

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SIGNATURE

For the beneficiary

Juan Camilo Montoya Bozzi with ECAS id n00gldyl signed in the Participant Portal on 17/12/2024 at 21:37:20 (transaction id SigId-21823-ruO1vUuXEdHYu1myZzYcqH77Tvjzd1YfgRwWOp7kyuHbBTMx GKBSqTYebt2RqQxA2CPOxRgapWCdZ0VISGkjWI-yntOf97TTHqOEyh6VidCjq-QopyepBPmzNXzd3HDm7urzLozjYLPktL7K aTrOdxPcas9qP0IeVSzmAt4f9zwzjGAwbzIU2YTzQHVwZe20981CHPG). Timestamp by third party at 2024.12.17 21:37:25 CET

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

ESCUELA SUPERIOR POLITECNICA DE CHIMBORAZO (ESPOCH), PIC 934215731, established in KM 1.5 PANAMERICANA SUR, RIOBAMBA EC060155, Ecuador,

hereby agrees

to become beneficiary

in Agreement No 101179251 — EL-BONGO ('the Agreement')

between UNIVERSIDAD ANTONIO NARINO (UAN) **and** the **European Education and Culture Executive Agency (EACEA)** ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

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SIGNATURE

For the beneficiary

Mario Efrain Audelo Guevara with ECAS id n00f6prn signed in the Participant Portal on 20/12/2024 at 18:07:56 (transaction id SigId-75799-zr2hpazZP96fxzzzV2nSMtxID5znPTApicWNusBg9vNZq0yW2IS6gIIKqdH2IQSnC2ekCj8qPpdzyryP6fj5ec6G-yntOf97TTHqOEyh6VidCjq-myO3LZtFd8AKCHFEyuVv0SUta8SbIIky0fddgpNxndkYe7zeTmVbYiWgmZiW6carCuCZxmDf85j3jtBuVzivL9). Timestamp by third party at 2024.12.20 18:08:00 CET

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

UNIVERSIDAD SAN FRANCISCO DE QUITO (USFQ), PIC 938699847, established in CALLE DIEGO DE ROBLES S N Y PAMPITE ESQ, QUITO 1712145, Ecuador,

hereby agrees

to become beneficiary

in Agreement No 101179251 — EL-BONGO ('the Agreement')

between UNIVERSIDAD ANTONIO NARINO (UAN) **and** the **European Education and Culture Executive Agency (EACEA)** ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

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SIGNATURE

For the beneficiary

Diego QUIROGA with ECAS id nquirdie signed in the Participant Portal on 27/11/2024 at 22:39:51 (transaction id SigId-136934-zuTvOJS7eJ02rE8rBfWHply7K1QGTZzzkgX9lqPDyJn4xWPiA2lRkdkKifEPm3OLoS4Tw9uAvupxSsiNBWzUcIW-rS0vSrmBGYCzv7Kvwzf0JpW-QLfUgY3rWvBFMciD5LrTaDr65lpRUuzfSRLWFPyYAWF9BXDpDXmZDTTzuzV13Bj9PwZp9lK0V17Pw34sVRYQLLG). Timestamp by third party at 2024.11.27 22:39:57 CET

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

UNIVERSIDAD DE SALAMANCA (USAL), PIC 999846610, established in CALLE PATIO DE ESCUELAS 1, SALAMANCA 37008, Spain,

hereby agrees

to become beneficiary

in Agreement No 101179251 — EL-BONGO ('the Agreement')

between UNIVERSIDAD ANTONIO NARINO (UAN) **and** the **European Education and Culture Executive Agency (EACEA)** ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and mandates

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SIGNATURE

For the beneficiary

Juan Manuel Corchado Rodríguez with ECAS id n002ah37 signed in the Participant Portal on 28/11/2024 at 10:00:49 (transaction id SigId-140147-3i64wQItmMTu0CzlCzlmQ9jDNiJ7STC6Oo28RIXzvYGc7znSnhy5cWCE1xa7RPygVVvWJmqlKszq4P3gtQAtXjW-rS0vSrmBGYCzv7Kvwzf0JpW-Fu6JfdBdN4TkXOK9bSpMvBcjydnBAzWIzsZf3fkiMjsq1hxeezJ8nLkEnCGaZ4Xl5MmxHaJlht4RHH73wYQLyXm). Timestamp by third party at 2024.11.28 10:00:53 CET

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

INSTITUT NATIONAL DES SCIENCES APPLIQUEES DE LYON (INSA LYON), PIC 999886089, established in 20 AVENUE ALBERT EINSTEIN, VILLEURBANNE CEDEX 69621, France,

hereby agrees

to become beneficiary

in Agreement No 101179251 — EL-BONGO ('the Agreement')

between UNIVERSIDAD ANTONIO NARINO (UAN) **and** the **European Education and Culture Executive Agency (EACEA)** ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and mandates

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SIGNATURE

For the beneficiary

Mélanie JACQUIN with ECAS id njacqmla signed in the Participant Portal on 02/12/2024 at 11:22:17 (transaction id SigId-41926-dRR1oG1SbQUAh94sT7B62Sa5BBAykzKwZymjFE7JE3JdYbxebXtXt7NrLshdSTuy8o4OzMSczH9XBoLZEddwc1m-yntOf97TTHqjUzoB6sLU0b-vx0daeogxetnAD1SAhVbrPC2y99ZISYE9KPqoIALbmdgmsnVZFDTcGp4zvPzU24twb5NG9ztYkHMtHRNE6Ym3w0). Timestamp by third party at 2024.12.02 11:22:23 CET

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

UNIVERSITE PARIS CITE (UPCité), PIC 897691060, established in 85 BD SAINT GERMAIN, PARIS 75006, France,

hereby agrees

to become beneficiary

in Agreement No 101179251 — EL-BONGO ('the Agreement')

between UNIVERSIDAD ANTONIO NARINO (UAN) **and** the **European Education and Culture Executive Agency (EACEA)** ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and mandates

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SIGNATURE

For the beneficiary

Edouard Kaminski with ECAS id n006a4ls signed in the Participant Portal on 16/12/2024 at 14:50:13 (transaction id SigId-71677-zNdh0JcUTT2radINFrzzofmObxIPIpBVZvsxBSXVR78uzmkr2tI6DAxOYcdmcInmQ9zw3rWnDcezIBrV0t6nukf0-jpJZscgsw0KezzivzqSBxju-nqXzOYzkgNedNLdeZR8hDOHZa7pVHIRFchfYd08lvT8fjQBVoeBMXjgN5zx2vS0Ojp0SzvY7Cpk1D7bqaw6NyBC). Timestamp by third party at 2024.12.16 14:50:18 CET

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

UNIVERSITE PAUL SABATIER TOULOUSE III (UT3), PIC 999851169, established in ROUTE DE NARBONNE 118, TOULOUSE CEDEX 9 31062, France,

hereby agrees

to become beneficiary

in Agreement No 101179251 — EL-BONGO ('the Agreement')

between UNIVERSIDAD ANTONIO NARINO (UAN) **and** the **European Education and Culture Executive Agency (EACEA)** ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and mandates

the coordinator to submit and sign in its name and on its behalf any **amendments** to the Agreement, in accordance with Article 39.

By signing this accession form, the beneficiary accepts the grant and agrees to implement it in accordance with the Agreement, with all the obligations and terms and conditions it sets out.

SIGNATURE

For the beneficiary

Odile RAUZY with ECAS id n00exp65 signed in the Participant Portal on 19/12/2024 at 10:16:47 (transaction id SigId-45332-kE7iTdidAaW zzKSZsBc467zkq23QquXUa3GYm9v7SJ5kyfM6sukOM3wzWG1tqcFQ 9byvwzTU8HmNk8503acoqSd-yntOf97TTHqOEyh6VidCjq-zzfPiUp2le WKhXKc8OKZGoJSVYcSXlh1sNt5GZsEhCc5BhT2gLEqzOUlm8AOOzr GWBRkGVzRqT0KGLGxHhyGb9A). Timestamp by third party at 2024.12.19 10:16:52 CET

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

UNIVERSIDAD SAN CARLOS DE GUATEMALA (USAC), PIC 997466618, established in CIUDAD UNIVERSITARIA ZONA 12, GUATEMALA 010112, Guatemala,

hereby agrees

to become beneficiary

in Agreement No 101179251 — EL-BONGO ('the Agreement')

between UNIVERSIDAD ANTONIO NARINO (UAN) **and** the **European Education and Culture Executive Agency (EACEA)** ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

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SIGNATURE

For the beneficiary

Walter Mazariegos with ECAS id n00ecido signed in the Participant Portal on 10/12/2024 at 19:13:52 (transaction id SigId-26434-0MUTz fnkLktZxcmEymJNMYFSVYIP59XIHzIT3mydf2dcwfzbM6zntx6Qx8W6 8ssnuEHKzSJe9UzUyFkkJpYs4mg0-rS0vSrmBGYCBreWzTMudw3-Dip yAUHUJ13I1LoznwnAvq2JgSXakxfPxZt1pwNPTbUqZR8NEC3mJGZDu NB2k0V5OcWuEjf4ga2daS6AKWj3AW). Timestamp by third party at 2024.12.10 19:13:55 CET

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

UNIVERSIDAD NACIONAL AUTONOMA DE HONDURAS (UNAH), PIC 952808206, established in BD SUYAPA CIUDAD UNIVERSITARIA FRANCISCO MORAZAN, TEGUCIGALPA 11101, Honduras,

hereby agrees

to become beneficiary

in Agreement No 101179251 — EL-BONGO ('the Agreement')

between UNIVERSIDAD ANTONIO NARINO (UAN) **and** the **European Education and Culture Executive Agency (EACEA)** ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

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SIGNATURE

For the beneficiary

Lourdes Murcia with ECAS id n00f1di8 signed in the Participant Portal on 20/01/2025 at 22:04:22 (transaction id SigId-765-Y0sISpAh zPvxOUk6xC62CgG3BB5bDWJQgO88Kk3gxcuSLh88NpsWSVzYox9I M70e27beLVzWLWTeLd7s2yFzd3m-rS0vSrmBGYC5IXEg0fgsQG-sHQ 944aR3u3yUTRrNMayqbbRjtYUkFXMZB8reXuZp4F2WtzgQnqfzgUO gJH6TDgIx1JElAFrjMJ6JH2BobLH7K). Timestamp by third party at 2025.01.20 22:04:27 CET

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

UNIVERSIDAD NACIONAL MAYOR DE SAN MARCOS (UNMSM), PIC 999453081, established in AVENIDA GERMAN AMEZAGA S/N, EDIFICIO JORGE BASADRE 4TO PISO, LIMA LIMA 1, Peru,

hereby agrees

to become beneficiary

in Agreement No 101179251 — EL-BONGO ('the Agreement')

between UNIVERSIDAD ANTONIO NARINO (UAN) **and** the **European Education and Culture Executive Agency (EACEA)** ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and mandates

the coordinator to submit and sign in its name and on its behalf any **amendments** to the Agreement, in accordance with Article 39.

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SIGNATURE

For the beneficiary

JERI GLORIA RAMON RUFFNER DE VEGA with ECAS id ncotilpe signed in the Participant Portal on 27/12/2024 at 22:24:17 (transaction id SigId-1338-C6lFCyK79JQzNdNOArKZcbX4vttVifAJSpLetDYCuFoSvBO7Ps4aHljXWZ2Eitu3yAB90tF3UMCo68FOYYXmMq-rS0vSrmBGYCzboUuyfT6ly-3zHakqbANZDgOI7UBPuunIT4NmzgnaHhrLkNSowZ7tkBL49mba8UR2DLAZLhtnPsa9lVfrMFywEXQU2WxzgCWjm). Timestamp by third party at 2024.12.27 22:24:21 CET

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

UNIVERSIDAD DE EL SALVADOR (UES), PIC 924681601, established in FINAL AVENIDA MARTIRES ESTUIANTES DEL 30 DE JULIO RECTORIA 4A PLANTA, SAN SALVADOR 3110, El Salvador,

hereby agrees

to become beneficiary

in Agreement No 101179251 — EL-BONGO ('the Agreement')

between UNIVERSIDAD ANTONIO NARINO (UAN) **and** the **European Education and Culture Executive Agency (EACEA)** ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and mandates

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SIGNATURE

For the beneficiary

Juan Rosa Quintanilla Quintanilla with ECAS id ninterre signed in the Participant Portal on 09/12/2024 at 15:45:48 (transaction id SigId-164688-TP5r79SERVitPpIlaCHCbwbuAzVjzYymorZkallfWSIbip2Pi0Er7zlpR59ffqqp1Fc499H4keJfy2CpirNUVuG-yntOf97TTHqjUzoB6sLU0b-4CuYijeMP195b8ZMQRInzasne4o4pOPZURd7g6RfjbpqI8TWDrbGV0TnYIUrNswaO51HdAmjyB6Q32i7FO3uOi). Timestamp by third party at 2024.12.09 15:45:51 CET

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

UNIVERSIDAD FRANCISCO GAVIDIA (UFG), PIC 879241757, established in CALLE EL PROGRESO 2748 COLONIA FLOR CBLANCA, SAN SALVADOR 01101, El Salvador,

hereby agrees

to become beneficiary

in Agreement No 101179251 — EL-BONGO ('the Agreement')

between UNIVERSIDAD ANTONIO NARINO (UAN) **and** the **European Education and Culture Executive Agency (EACEA)** ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and mandates

the coordinator to submit and sign in its name and on its behalf any **amendments** to the Agreement, in accordance with Article 39.

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SIGNATURE

For the beneficiary

Roberto Moran with ECAS id n0025ick signed in the Participant Portal on 13/12/2024 at 17:12:21 (transaction id SigId-50959-fPGJ7XPUFXvkWQVeyzyjXhykRgBFthr1zRQghNa7kI0aa0WzZY0VFcIuVyisIOYEBYAYAEPUp3BSzWo0UtmLN7q-jpJZscgsw0KezzivzqSBxju-PLGP2dI2ZWpKpGwbzMZa7xRESiZnOXfD1TAHf3fX3jTNq6n3o9HGUs0qNkkyqgWoBrIzbbWOFZ6B6QMCK01SzVm). Timestamp by third party at 2024.12.13 17:12:25 CET

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

UNIVERSIDAD SIMON BOLIVAR (USB), PIC 997939590, established in VALLE DE SARTENEJAS BARUTA ESTADO MIRANDA, CARACAS 1201, Venezuela,

hereby agrees

to become beneficiary

in Agreement No 101179251 — EL-BONGO ('the Agreement')

between UNIVERSIDAD ANTONIO NARINO (UAN) **and** the **European Education and Culture Executive Agency (EACEA)** ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and mandates

the coordinator to submit and sign in its name and on its behalf any **amendments** to the Agreement, in accordance with Article 39.

By signing this accession form, the beneficiary accepts the grant and agrees to implement it in accordance with the Agreement, with all the obligations and terms and conditions it sets out.

SIGNATURE

For the beneficiary

Rector Jorge Stephany with ECAS id n0032h6p signed in the Participant Portal on 28/11/2024 at 17:05:10 (transaction id SigId-151420-DzZKrXcBgoBzq5PfiJ0ESzzRXrTHcbzbV6PDdXwWSQG3qGg51QI7ZWQCrG8tOyDm2zYP6VNDikzpnLWN5dkMEnci-rS0vSrmBGYCzv7Kvwzf0JpW-touqWvKbxNC9H6K23Ousov2IDJPam7B6QPnUdPDOdpKzrLylv7VRmzuIkzVtzSMf4cN4La5E0wZ72hLsVpEA0PS). Timestamp by third party at 2024.11.28 17:05:14 CET

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

UNIVERSIDAD CENTRAL DE VENEZUELA (UCV), PIC 998697257, established in CENT COM LOS CHAGUARAMOS 6/10, CARACAS 1040, Venezuela,

hereby agrees

to become beneficiary

in Agreement No 101179251 — EL-BONGO ('the Agreement')

between UNIVERSIDAD ANTONIO NARINO (UAN) **and** the **European Education and Culture Executive Agency (EACEA)** ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and mandates

the coordinator to submit and sign in its name and on its behalf any **amendments** to the Agreement, in accordance with Article 39.

By signing this accession form, the beneficiary accepts the grant and agrees to implement it in accordance with the Agreement, with all the obligations and terms and conditions it sets out.

SIGNATURE

For the beneficiary

Victor Enrique Rago Albujas with ECAS id n00h8gwi signed in the Participant Portal on 19/12/2024 at 16:09:55 (transaction id SigId-57401-koNvrKMFpXadzzSYqHX7YtkspIO028POhlkrzzdpjBt3iIIVdytILg4nK4wT4MOjA24V6nAFnb7JXnHaw6YMCVe-yntOf97TTHqOEyh6VidCjq-fnohMIUvjV9zLlmy8l9FwDBeEPHssOzwJie7cvWPpybSgxcwbWMQGzInLgYs3e14EzUu1MzecwQClj6b0U2sMze0). Timestamp by third party at 2024.12.19 16:10:00 CET

FINANCIAL STATEMENT FOR THE ACTION FOR REPORTING PERIOD [NUMBER]

	EU contribution											
	Eligible lump sum contributions (per work package)											Requested EU contribution
	WP1 [name]	WP2 [name]	WP3 [name]	WP4 [name]	WP5 [name]	WP6 [name]	WP7 [name]	WP8 [name]	WP9 [name]	WP10 [name]	WP [XX]	
Forms of funding	/ Lump sum contribution// Financing not linked to costs/	/ Lump sum contribution// Financing not linked to costs/	/ Lump sum contribution// Financing not linked to costs/	/ Lump sum contribution// Financing not linked to costs/	/ Lump sum contribution// Financing not linked to costs/	/ Lump sum contribution// Financing not linked to costs/	/ Lump sum contribution// Financing not linked to costs/	/ Lump sum contribution// Financing not linked to costs/	/ Lump sum contribution// Financing not linked to costs/	/ Lump sum contribution// Financing not linked to costs/	/ Lump sum contribution// Financing not linked to costs/	
Status of completion	COMPLETED	COMPLETED	COMPLETED	COMPLETED	COMPLETED	COMPLETED	COMPLETED	PARTIALLY COMPLETED	PARTIALLY COMPLETED	COMPLETED	NOT COMPLETED	
	a	b	c	d	e	f	g	h	i	j	k	l = a + b+ c + d+ e+ f+ g+ h+ i+ j+ k
1 – [short name beneficiary]												
1.1 – [short name affiliated entity]												
2 – [short name beneficiary]												
2.1 – [short name affiliated entity]												
X – [short name associated partner]												
Total consortium												

The consortium hereby confirms that:

The information provided is complete, reliable and true.

The lump sum contributions declared are eligible (in particular, the work packages have been completed and the work has been properly implemented and/or the results were achieved; see Article 6).

The proper implementation of the action/achievement of the results can be substantiated by adequate records and supporting documentation that will be produced upon request or in the context of checks, reviews, audits and investigations (see Articles 19, 21 and 25).

ANNEX 5

SPECIFIC RULES

INTELLECTUAL PROPERTY RIGHTS (IPR) — BACKGROUND AND RESULTS — ACCESS RIGHTS AND RIGHTS OF USE (— ARTICLE 16)

Rights of use of the granting authority on results for information, communication, publicity and dissemination purposes

The granting authority also has the right to exploit non-sensitive results of the action for information, communication, dissemination and publicity purposes, using any of the following modes:

- **use for its own purposes** (in particular, making them available to persons working for the granting authority or any other EU service (including institutions, bodies, offices, agencies, etc.) or EU Member State institution or body; copying or reproducing them in whole or in part, in unlimited numbers; and communication through press information services)
- **distribution to the public** in hard copies, in electronic or digital format, on the internet including social networks, as a downloadable or non-downloadable file
- **editing** or **redrafting** (including shortening, summarising, changing, correcting, cutting, inserting elements (e.g. meta-data, legends or other graphic, visual, audio or text elements extracting parts (e.g. audio or video files), dividing into parts or use in a compilation
- **translation** (including inserting subtitles/dubbing) in all official languages of EU
- **storage** in paper, electronic or other form
- **archiving** in line with applicable document-management rules
- the right to authorise **third parties** to act on its behalf or sub-license to third parties, including if there is licensed background, any of the rights or modes of exploitation set out in this provision
- **processing**, analysing, aggregating the results and **producing derivative works**
- **disseminating** the results in widely accessible databases or indexes (such as through ‘open access’ or ‘open data’ portals or similar repositories, whether free of charge or not.

The beneficiaries must ensure these rights of use for the whole duration they are protected by industrial or intellectual property rights.

If results are subject to moral rights or third party rights (including intellectual property rights or rights of natural persons on their image and voice), the beneficiaries must ensure that they

comply with their obligations under this Agreement (in particular, by obtaining the necessary licences and authorisations from the rights holders concerned).

Access rights for the granting authority, EU institutions, bodies, offices or agencies and national authorities to results for policy purposes

The beneficiaries must grant access to their results — on a royalty-free basis — to the granting authority, other EU institutions, bodies, offices or agencies, for developing, implementing and monitoring EU policies or programmes.

Such access rights are limited to non-commercial and non-competitive use.

The access rights also extend to national authorities of EU Member States or associated countries, for developing, implementing and monitoring their policies or programmes in this area. In this case, access is subject to a bilateral agreement to define specific conditions ensuring that:

- the access will be used only for the intended purpose and
- appropriate confidentiality obligations are in place.

Moreover, the requesting national authority or EU institution, body, office or agency (including the granting authority) must inform all other national authorities of such a request.

Access rights for third parties to ensure continuity and interoperability

Where the call conditions impose continuity or interoperability obligations, the beneficiaries must make the materials, documents and information and results produced in the framework of the action available to the public (freely accessible on the Internet under open licences or open source licences).

COMMUNICATION, DISSEMINATION AND VISIBILITY (— ARTICLE 17)

Additional communication and dissemination activities

The beneficiaries must engage in the following additional communication and dissemination activities:

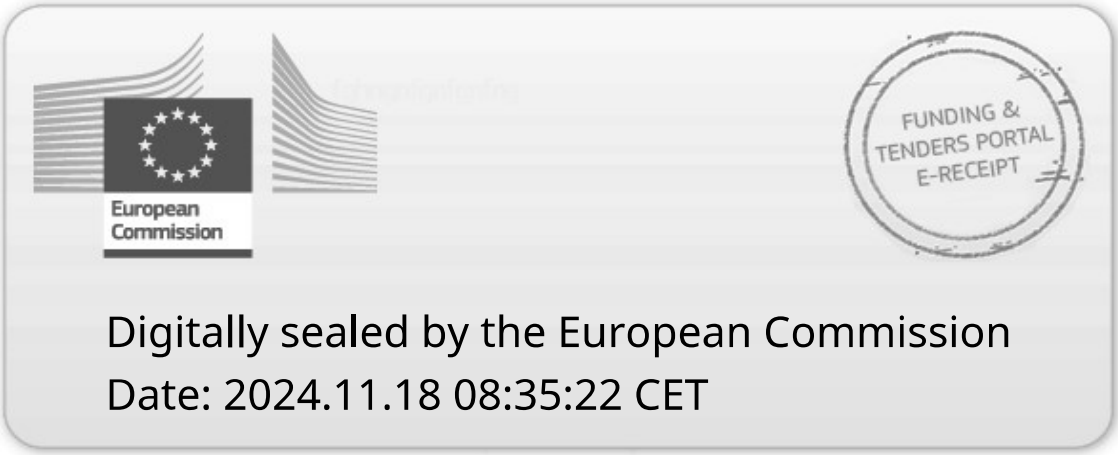
- **present the project** (including project summary, coordinator contact details, list of participants, European flag and funding statement and project results) on the beneficiaries' **websites** or **social media accounts**
- for actions involving public **events**, display signs and posters mentioning the action and the European flag and funding statement
- upload the public **project results** to the Erasmus+ Project Results platform, available through the Funding & Tenders Portal.

SPECIFIC RULES FOR CARRYING OUT THE ACTION (— ARTICLE 18)

EU restrictive measures

The beneficiaries must ensure that the EU grant does not benefit any affiliated entities, associated partners, subcontractors or recipients of financial support to third parties that are

subject to restrictive measures adopted under Article 29 of the Treaty on the European Union or Article 215 of the Treaty on the Functioning of the EU (TFEU).



This electronic receipt is a digitally signed version of the document submitted by your organisation. Both the content of the document and a set of metadata have been digitally sealed.

This digital signature mechanism, using a public-private key pair mechanism, uniquely binds this eReceipt to the modules of the Funding & Tenders Portal of the European Commission, to the transaction for which it was generated and ensures its full integrity. Therefore a complete digitally signed trail of the transaction is available both for your organisation and for the issuer of the eReceipt.

Any attempt to modify the content will lead to a break of the integrity of the electronic signature, which can be verified at any time by clicking on the eReceipt validation symbol.

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(https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/support/faq)