



**EUROPEAN EDUCATION AND CULTURE EXECUTIVE AGENCY
(EACEA)**

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

GRANT AGREEMENT

Project 101128861 — BLUE-ERA

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':

UNIVERSITE DU LITTORAL (ULCO), PIC 972682342, established in PLACE DE L YSER 1, Dunkerque 59375, France,

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

2. **PANEPISTIMIO AIGAIU (U.AEGEAN)**, PIC 999840693, established in LOFOS PANEPISTIMIOU, MYTILINI 81100, Greece,

3. **UNIVERSITA DEGLI STUDI DI PALERMO (UNIPA)**, PIC 999734284, established in PIAZZA MARINA 61, PALERMO 90133, Italy,

4. **ARAB ACADEMY FOR SCIENCE, TECHNOLOGY AND MARITIME TRANSPORT (AASTMT)**, PIC 998137082, established in EL MOSHEER AHMED ISMAIL STREET MASAKEN EL SHERATON, CAIRO 2033, Egypt,

5. **ALEXANDRIA UNIVERSITY (ALEXANDRIA.U)**, PIC 994537800, established in EL GEISH STREET 22, Alexandria 21526, Egypt,

6. **University of Sousse (US)**, PIC 991390053, established in Rue khalifa El Karoui Sahloul, Sousse 4000, Tunisia,

7. **UNIVERSITY OF MONASTIR (U.MONASTIR)**, PIC 946167683, established in TAHAR HADDAD STREET, MONASTIR 5000, Tunisia,

8. **UNIVERSITY OF JORDAN (UJ)**, PIC 997223342, established in QUEEN RANIA AL ABDULLAH STREET, Amman 11942, Jordan,

9. **AL-ALBAYT UNIVERSITY (AAUB)**, PIC 933024765, established in DIA EDDIN ARAFAH, MAFRAQ 25113, Jordan,

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)

Annex 1 Description of the action¹

Annex 2 Estimated budget for the action

Annex 3 Accession forms (if applicable)²

Annex 3a Declaration on joint and several liability of affiliated entities (if applicable)³

Annex 4 Model for the financial statements

Annex 5 Specific rules (if applicable)

¹ Template published on [Portal Reference Documents](#).

² Template published on [Portal Reference Documents](#).

³ Template published on [Portal Reference Documents](#).

TERMS AND CONDITIONS

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DATA SHEET

1. General data

Project summary:

Project summary
<p>The main objective of the current proposal on BLUE-ERA is the establishment of a novel master's degree program for sustainable blue economy in the south Mediterranean region (Region 3 countries: Tunisia, Egypt and Jordan). Our ultimate objective is to use ocean resources on sustainable manner for local economic growthneeds, improved livelihoods, entrepreneurship to local needs and generating employment (empowerment of youngs) while preserving the health of ocean ecosystems. Participating countries in this proposal are two universities from each country in the south (Egypt, Tunisia and Jordan) in addition to three universities from the EU (France, Italy, and Greece). During the project period (3 years), there will be many activities; including gap analysis, lab installation and field trips for the practical work, capacity building for the staff and students, summer and winter schools, and training in European universities. There will also be an online and face to face seminars and workshops, as well as knowledge dissemination events. Eligibility for admission to the proposed MSc program, candidates of various fields (e.g. marine sciences, geology, geophysics, environmental engineering, coastal zone management, environmental economy, etc.) will be invited. Expected outcomes are of highly qualified graduates in fields of sustainable blue economy. Thanks to the BLUE-ERA consortium for their significant contribution in the development of exchanges of knowledge, expertise and good practice tools for professional and entrepreneurial integration, employability and professionalization of students will be promoted. The sustainability of the proposed plan will guarantee the continuation of the master's program far beyond the end of the project. In addition, the interconnection between laboratories and future research collaborations will strengthen the research capacity in the field of blue economy, including the establishment of co-supervised postgraduates and PhD fellows.</p>

Keywords:

- Economics
- Modernisation of Higher Education
- Curriculum design and development
- International cooperation
- Climate change
- environmental sustainability
- blue economy; sustainable development goals; ocean governance; marine resources

Project number: 101128861

Project name: Curriculum Development for the Sustainable Blue Economy Study toward the achievement of Ocean Decade in Tunisia, Egypt, and Jordan / BLUE-ERA

Project acronym: BLUE-ERA

Call: ERASMUS-EDU-2023-CBHE

Topic: ERASMUS-EDU-2023-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	ULCO	UNIVERSITE DU LITTORAL	FR	972682342	90 000.00
2	BEN	U.AEGEAN	PANEPISTIMIO AIGAIUO	EL	999840693	61 775.00
3	BEN	UNIPA	UNIVERSITA DEGLI STUDI DI PALERMO	IT	999734284	68 076.00
4	BEN (IO)	AASTMT	ARAB ACADEMY FOR SCIENCE, TECHNOLOGY AND MARITIME TRANSPORT	EG	998137082	112 844.00
5	BEN	ALEXANDRIA.U	ALEXANDRIA UNIVERSITY	EG	994537800	74 614.00
6	BEN	US	University of Sousse	TN	991390053	74 838.00
7	BEN	U.MONASTIR	UNIVERSITY OF MONASTIR	TN	946167683	72 623.00
8	BEN	UJ	UNIVERSITY OF JORDAN	JO	997223342	72 187.00
9	BEN	AAUB	AL-ALBAYT UNIVERSITY	JO	933024765	72 187.00
Total						699 144.00

Coordinator:

- UNIVERSITE DU LITTORAL (ULCO)

3. Grant**Maximum grant amount, total estimated eligible costs and contributions and funding rate:**

Maximum grant amount (Annex 2)	Maximum grant amount (award decision)
699 144.00	699 144.00

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)	489 400.80	n/a	1 - ULCO	n/a
			2 - U.AEGEAN	n/a
			3 - UNIPA	n/a
			4 - AASTMT	n/a
			5 - ALEXANDRIA.U	n/a
			6 - US	n/a
			7 - U.MONASTIR	n/a
			8 - UJ	n/a
			9 - AAUB	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 conditions (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:

FR761007159000000102840456

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)

Special dispute settlement forum:

- ARAB ACADEMY FOR SCIENCE, TECHNOLOGY AND MARITIME TRANSPORT (AASTMT): Arbitration

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 2018/1046⁴ 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 2017/1371⁵ and Article 1 of the Convention on the protection of the European Communities' financial interests, drawn up by the Council Act of 26 July 1995⁶, 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 2988/95⁷.

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 **101128861 — BLUE-ERA** ('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 grant⁸ 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

Not applicable

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).

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.”

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/EC¹¹
- 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.).

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).

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).

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 2015/444¹² 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

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).

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

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 2018/1725¹³.

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 2016/679¹⁴).

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.

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).

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

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):



Funded by the
European Union



Co-funded by the
European Union



Funded by the
European Union



Co-funded by the
European Union

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:

$$\left\{ \begin{array}{l} \text{total accepted EU contribution for the beneficiary} \\ \text{minus} \\ \text{prefinancing and interim payments received (if any)} \end{array} \right\}.$$

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:

$$\begin{aligned} & \{\text{final grant amount} \\ & \text{minus} \\ & \{\text{prefinancing and interim payments made (if any)}\} \}. \end{aligned}$$

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:

$$\left\{ \begin{array}{l} \text{\{total accepted EU contribution for the beneficiary} \\ \text{divided by} \\ \text{total accepted EU contribution for the action\}} \\ \text{multiplied by} \\ \text{final grant amount for the action\}}. \end{array} \right.$$

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 2015/2366¹⁵ 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

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).

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).

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.

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.

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 883/2013¹⁶ and No 2185/96¹⁷
- 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.

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

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).

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 2988/95¹⁸).

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.

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).

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).

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 1182/71¹⁹, 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.

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).

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.

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).

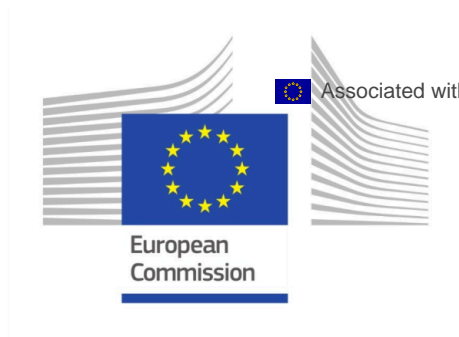
ARTICLE 44 — ENTRY INTO FORCE

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

For the granting authority



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	
<i>Grant Preparation (General Information screen) — Enter the info.</i>	
Project number:	101128861
Project name:	Curriculum Development for the Sustainable Blue Economy Study toward the achievement of Ocean Decade in Tunisia, Egypt, and Jordan / BLUE-ERA
Project acronym:	BLUE-ERA
Call:	ERASMUS-EDU-2023-CBHE
Topic:	ERASMUS-EDU-2023-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

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Staff effort	8
List of deliverables	9
List of milestones (outputs/outcomes)	17
List of critical risks	18

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 main objective of the current proposal on BLUE-ERA is the establishment of a novel master's degree program for sustainable blue economy in the south Mediterranean region (Region 3 countries: Tunisia, Egypt and Jordan). Our ultimate objective is to use ocean resources on sustainable manner for local economic growthneeds, improved livelihoods, entrepreneurship to local needs and generating employment (empowerment of youngs) while preserving the health of ocean ecosystems. Participating countries in this proposal are two universities from each country in the south (Egypt, Tunisia and Jordan) in addition to three universities from the EU (France, Italy, and Greece). During the project period (3 years), there will be many activities; including gap analysis, lab installation and field trips for the practical work, capacity building for the staff and students, summer and winter schools, and training in European universities. There will also be an online and face to face seminars and workshops, as well as knowledge dissemination events. Eligibility for admission to the proposed MSc program, candidates of various fields (e.g. marine sciences, geology, geophysics, environmental engineering, coastal zone management, environmental economy, etc.) will be invited. Expected outcomes are of highly qualified graduates in fields of sustainable blue economy. Thanks to the BLUE-ERA consortium for their significant contribution in the development of exchanges of knowledge, expertise and good practice tools for professional and entrepreneurial integration, employability and professionalization of students will be promoted. The sustainability of the proposed plan will guarantee the continuation of the master's program far beyond the end of the project. In addition, the interconnection between laboratories and future research collaborations will strengthen the research capacity in the field of blue economy, including the establishment of co-supervised postgraduates and PhD fellows.

LIST OF PARTICIPANTS

PARTICIPANTS

Grant Preparation (Beneficiaries screen) — Enter the info.

Number	Role	Short name	Legal name	Country	PIC
1	COO	ULCO	UNIVERSITE DU LITTORAL	FR	972682342
2	BEN	U.AEGEAN	PANEPISTIMIO AIGAIUO	EL	999840693
3	BEN	UNIPA	UNIVERSITA DEGLI STUDI DI PALERMO	IT	999734284
4	BEN	AASTMT	ARAB ACADEMY FOR SCIENCE, TECHNOLOGY AND MARITIME TRANSPORT	EG	998137082
5	BEN	ALEXANDRIA.U	ALEXANDRIA UNIVERSITY	EG	994537800
6	BEN	US	University of Sousse	TN	991390053
7	BEN	U.MONASTIR	UNIVERSITY OF MONASTIR	TN	946167683
8	BEN	UJ	UNIVERSITY OF JORDAN	JO	997223342
9	BEN	AAUB	AL-ALBAYT UNIVERSITY	JO	933024765

LIST OF WORK PACKAGES

Work packages						
<i>Grant Preparation (Work Packages screen) — Enter the info.</i>						
Work Package No	Work Package name	Lead Beneficiary	Effort (Person-Months)	Start Month	End Month	Deliverables
WP1	Management, financial and evaluation framework	1 - ULCO	30.00	1	36	D1.1 – Internal Management Platform D1.2 – Quality assurance Plan D1.3 – Progress report D1.4 – Quality assurance and control report
WP2	Analysis, development and MSc. recognition	7 - U.MONASTIR	24.00	4	20	D2.1 – New Curriculum’s modules D2.2 – Accreditation of the new master’s degree
WP3	Sustainable Blue Economy in the local and global labour markets	8 - UJ	28.00	2	8	D3.1 – Networking data base D3.2 – Workshops for labour market stakeholders
WP4	Go-live: program implementation	5 - ALEXANDRIA.U	20.00	7	36	D4.1 – Capacity building plan D4.2 – Summer schools for teaching staff D4.3 – Winter schools for teaching staff D4.4 – Master programme launched in the three countries D4.5 – Summer/winter school for students
WP5	Interconnected and international labs	3 - UNIPA	19.00	6	24	D5.1 – Laboratories setup and linked together
WP6	Impact and Dissemination	4 - AASTMT	20.00	1	36	D6.1 – Website ready and social media active and running D6.2 – Communication Plan D6.3 – Dissemination, exploitation and sustainability Plan D6.4 – Motivational workshops

Work package WP1 – Management, financial and evaluation framework

Work Package Number	WP1	Lead Beneficiary	1. ULCO
Work Package Name	Management, financial and evaluation framework		
Start Month	1	End Month	36

Objectives
<p>The overall objective of WP1 is to emphasise the BLEU-ERA management approach with respect to project coordination actions, financial issues, technical reporting, quality assurance, monitoring and control, and sustainability. Furthermore, well-defined subcommittees and roles aid in the smooth operation of the management process. The specific objectives are as follows:</p> <ul style="list-style-type: none"> • Coordination of the project consortium, which is made up of project partners who are functioning on interdependent tasks. • Execution of an efficient cost and financial reporting system • Assuring the right quality of procedures and outcomes • Maintain strong communication with project beneficiaries as well as the associated partners. • Coordination of the issuing of both financial and technical interim and final reports <ul style="list-style-type: none"> • Guarantee a sustainable strategy and the long-term viability of the outcomes

Description
<p>Task.1.1 will establish the management entity and decision-making procedures that will be included in detail in the Partnership Agreement (PA). ULCO makes sure procedures are followed and objectives are met within the given deadlines. ULCO takes into account the Work Packages Supreme Leaders who govern WP leaders and also selects each WP leader. ULCO is also in charge of forming subcommittees.</p> <p>Consortium meetings will be launched through this task, and the project will begin with the kick-off meeting to form the right framework of cooperation.</p> <p>Task 1.2 states that progress, cost and financial statement reports will be evaluated by External financial expert, submitted to the "European Education and Culture Executive Agency" (EACEA) platform as defined in the Annotated Grant Agreement (AGA) in a timely manner.</p> <p>ULCO verifies that project partners understand their commitments and that the reporting process is well-organized and coordinated. According to EACEA templates, a specific intranet space will be designed to help partners with the usage of the relevant forms and to enable submission by uploading material in their designated virtual space.</p> <p>Task 1.3 states that UNIPA chaired the Project Coordinator (PC), UNIPA will gather information from partners, oversee the completion of interim and final reports, and closely collaborate with management and guidelines to improve project goals. Additionally, dealing with any deviations and necessary corrective steps.</p> <p>Task 1.4 states that US chairs the monitoring and control committee, where the monitoring committee will create a monitoring plan and a bunch of obligations for the monitoring operations. The monitoring will take the form of a practical tool to assist project management and the entire consortium in working more efficiently and credibly towards the fulfilment of project objectives and outcomes.</p> <p>The monitoring report will be evaluated by external monitoring expert.</p> <p>Task 1.5 specifies that a UAEGEAN-chaired quality assurance committee will establish the overall approach for quality control, external and internal evaluation, and the criteria for partners to follow for successful communication, in addition to the preparation and reporting of project deliverables.</p> <p>The quality report will be evaluated by external quality expert.</p>

Work package WP2 – Analysis, development and MSc. recognition

Work Package Number	WP2	Lead Beneficiary	7. U.MONASTIR
Work Package Name	Analysis, development and MSc. recognition		
Start Month	4	End Month	20

Objectives
<p>WP (2) is working to launch eight novel modules in the sustainable blue economy that have never been studied at the beneficiary universities. As well as the connection between previously taught modules at each university and the blue economy through the development of fifteen elective modules.</p> <ul style="list-style-type: none"> • Upgrading of the modules. • Obtaining the accreditation for the master's degree from the authorities' bodies.
Description
<p>Survey about blue-economy-related curricula and assessment of these related existing curricula Preparation, development and upgrading of new curricula Preparation of a new bunch of free elective curricula Approval and accreditation request for the establishment of the master in sustainable blue economy</p>

Work package WP3 – Sustainable Blue Economy in the local and global labour markets

Work Package Number	WP3	Lead Beneficiary	8. UJ
Work Package Name	Sustainable Blue Economy in the local and global labour markets		
Start Month	2	End Month	8

Objectives
<ul style="list-style-type: none"> • WP (3) will act as a direct bridge to the labour market. It will foster connections with the sustainable blue economy in the maritime industry and the labour market, promoting the employability of students enrolled in the BLUE ERA master's degree programme. • Defining the curriculum and case studies by bridging the gap between academics, scientific research, and industry. It will strengthen the links of ensuring that students acquire the necessary skills and work on labor-market-relevant problems.

Description
<p>Database, information sharing strategy, as well as networking Collaboration between academia and industry. Workshops on the use of the blue economy in industries and the labour market</p>

Work package WP4 – Go-live: program implementation

Work Package Number	WP4	Lead Beneficiary	5. ALEXANDRIA.U
Work Package Name	Go-live: program implementation		
Start Month	7	End Month	36

Objectives
<p>(WP4) is the work package in charge of the fulfilment of the new curriculum as well as the go-live of the master's degree program. It is the key source of project outcomes and has committed resources. The specific objectives are:</p> <ul style="list-style-type: none"> • Following the accreditation (from WP2), all the material will be further developed, and an open call for the first intake in the master's degree in Tunisia, Egypt, and Jordan will start. • Enhance the effectiveness of the new didactic material using a well-planned capacity building plan. • Transfer expertise and methodologies from Europe to the nations of Region 3.

Description

New learning technique and innovative educational approach.
 Creation of novel instructional materials
 Training for teaching staff and students from the partner countries (Summer/winter school)
 The first intake is starting and the first semester is running
 Case studies are being created.

Work package WP5 – Interconnected and international labs

Work Package Number	WP5	Lead Beneficiary	3. UNIPA
Work Package Name	Interconnected and international labs		
Start Month	6	End Month	24

Objectives

This WP addresses the construction of labs in universities in Tunisia, Egypt, and Jordan. It covers the complete process life cycle, from designing to tendering through purchase and installation. The laboratories are essential for teaching (WP4), creating creative solutions based on case studies (WP4), and for upcoming collaboration and cooperative initiatives (sustainability as in WP1).

Description

Designing laboratories
 Tendering procedure
 Purchasing and setting up. The laboratories are up and running.
 Convergence and collaborative research strategies and subjects

Work package WP6 – Impact and Dissemination

Work Package Number	WP6	Lead Beneficiary	4. AASTMT
Work Package Name	Impact and Dissemination		
Start Month	1	End Month	36

Objectives

This is the core dissemination and impact work package, and it is critical in maintaining enthusiasm for the project, enhancing its outcomes and adding value. As well as demonstrating the expanded skills of students and institutions in Tunisia, Egypt, Jordan, and throughout the world. the specific objectives are:

- Creating and maintaining enthusiasm for the project through ongoing initiatives' activities and events.
- Continue to spread the outcomes and the participants' new qualifications to the selected stakeholders.
- Encouragement of participants' entire blend of technical and entrepreneurial abilities by presenting unique solutions to local challenges.

Description

Creating a Dissemination Plan
 Papers and digital promotional materials are examples of primary marketing materials.
 Data can be imported into the European Education and Culture Executive Agency platform.
 Inspirational blue economy lectures with academics and business
 Social activities
 Final conference and dissemination event

STAFF EFFORT

Staff effort per participant							
<i>Grant Preparation (Work packages - Effort screen) — Enter the info.</i>							
Participant	WP1	WP2	WP3	WP4	WP5	WP6	Total Person-Months
1 - ULCO	3.00	2.00	2.00	2.00	2.00	3.00	14.00
2 - U.AEGEAN	4.00	1.00	4.00	2.00	1.00	1.00	13.00
3 - UNIPA	3.00	3.00	3.00	1.00	2.00	2.00	14.00
4 - AASTMT	3.00	4.00	3.00	2.00	2.00	3.00	17.00
5 - ALEXANDRIA.U	1.00	2.00	2.00	1.00	2.00	1.00	9.00
6 - US	5.00	5.00	5.00	5.00	4.00	4.00	28.00
7 - U.MONASTIR	5.00	5.00	5.00	5.00	4.00	4.00	28.00
8 - UJ	3.00	1.00	2.00	1.00	1.00	1.00	9.00
9 - AAUB	3.00	1.00	2.00	1.00	1.00	1.00	9.00
Total Person-Months	30.00	24.00	28.00	20.00	19.00	20.00	141.00

LIST OF DELIVERABLES

Deliverables						
<i>Grant Preparation (Deliverables screen) — Enter the info.</i>						
<i>The labels used mean:</i>						
<i>Public — fully open (⚠ automatically posted online)</i>						
<i>Sensitive — limited under the conditions of the Grant Agreement</i>						
<i>EU classified —RESTREINT-UE/EU-RESTRICTED, CONFIDENTIEL-UE/EU-CONFIDENTIAL, SECRET-UE/EU-SECRET under Decision 2015/444</i>						
Deliverable No	Deliverable Name	Work Package No	Lead Beneficiary	Type	Dissemination Level	Due Date (month)
D1.1	Internal Management Platform	WP1	1 - ULCO	DEC —Websites, patent filings, videos, etc	SEN - Sensitive	4
D1.2	Quality assurance Plan	WP1	3 - UNIPA	R — Document, report	SEN - Sensitive	8
D1.3	Progress report	WP1	1 - ULCO	R — Document, report	SEN - Sensitive	19
D1.4	Quality assurance and control report	WP1	2 - U.AEGEAN	R — Document, report	SEN - Sensitive	26
D2.1	New Curriculum's modules	WP2	7 - U.MONASTIR	R — Document, report	PU - Public	12
D2.2	Accreditation of the new master's degree	WP2	4 - AASTMT	R — Document, report	SEN - Sensitive	20
D3.1	Networking data base	WP3	8 - UJ	R — Document, report	SEN - Sensitive	4
D3.2	Workshops for labour market stakeholders	WP3	4 - AASTMT	OTHER	SEN - Sensitive	6
D4.1	Capacity building plan	WP4	3 - UNIPA	R — Document, report	PU - Public	24
D4.2	Summer schools for teaching staff	WP4	1 - ULCO	OTHER	SEN - Sensitive	18
D4.3	Winter schools for teaching staff	WP4	2 - U.AEGEAN	OTHER	SEN - Sensitive	22
D4.4	Master programme launched in the three countries	WP4	3 - UNIPA	R — Document, report	PU - Public	25
D4.5	Summer/winter school for students	WP4	3 - UNIPA	OTHER	SEN - Sensitive	32

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)
D5.1	Laboratories setup and linked together	WP5	5 - ALEXANDRIA.U	OTHER	PU - Public	24
D6.1	Website ready and social media active and running	WP6	4 - AASTMT	DEC —Websites, patent filings, videos, etc	PU - Public	4
D6.2	Communication Plan	WP6	4 - AASTMT	R — Document, report	SEN - Sensitive	12
D6.3	Dissemination, exploitation and sustainability Plan	WP6	3 - UNIPA	R — Document, report	SEN - Sensitive	22
D6.4	Motivational workshops	WP6	4 - AASTMT	OTHER	SEN - Sensitive	32

Deliverable D1.1 – Internal Management Platform

Deliverable Number	D1.1	Lead Beneficiary	1. ULCO
Deliverable Name	Internal Management Platform		
Type	DEC — Websites, patent filings, videos, etc	Dissemination Level	SEN - Sensitive
Due Date (month)	4	Work Package No	WP1

Description
Intranet platform for registered users only (username and password mandatory) There are two major areas: 1. the repository for documents and BLUE-ERA outcomes; 2. Cloud storage for financial documents, Language: English, Link: on the home page of the website

Deliverable D1.2 – Quality assurance Plan

Deliverable Number	D1.2	Lead Beneficiary	3. UNIPA
Deliverable Name	Quality assurance Plan		
Type	R — Document, report	Dissemination Level	SEN - Sensitive
Due Date (month)	8	Work Package No	WP1

Description
The report illustrates structures, measures, tools and procedures in place to ensure quality of results and their timely delivery. Document produced in electronic format, in English, approximately 20 pages (with annexes included).

Deliverable D1.3 – Progress report

Deliverable Number	D1.3	Lead Beneficiary	1. ULCO
Deliverable Name	Progress report		
Type	R — Document, report	Dissemination Level	SEN - Sensitive
Due Date (month)	19	Work Package No	WP1

Description
Comprehensive report on activities carried out in the first 18 months of project implementation. Document: electronic format, in English, approximately 30 pages (annexes included)

Deliverable D1.4 – Quality assurance and control report

Deliverable Number	D1.4	Lead Beneficiary	2. U.AEGEAN
Deliverable Name	Quality assurance and control report		
Type	R — Document, report	Dissemination Level	SEN - Sensitive
Due Date (month)	26	Work Package No	WP1

Description

Report taking into account the external quality expert's remarks and specifying the actions taken to respond to them. Electronic format, in English, approximately 20 pages with the report of the external expert in annex.

Deliverable D2.1 – New Curriculum’s modules

Deliverable Number	D2.1	Lead Beneficiary	7. U.MONASTIR
Deliverable Name	New Curriculum’s modules		
Type	R — Document, report	Dissemination Level	PU - Public
Due Date (month)	12	Work Package No	WP2

Description

Report describing details of the created new training modules, with learning outcomes, skills, framework, number of hours and ECST for each module. This will serve as a precursor to their accreditation (T 2.4) and the creation of instructional content.

Electronic format, roughly 50 pages in English (annexes included). The courses will be in French and/or English in order for them to be authorised in Tunisia.

Deliverable D2.2 – Accreditation of the new master’s degree

Deliverable Number	D2.2	Lead Beneficiary	4. AASTMT
Deliverable Name	Accreditation of the new master’s degree		
Type	R — Document, report	Dissemination Level	SEN - Sensitive
Due Date (month)	20	Work Package No	WP2

Description

The accreditation application document and an official response, document, or communication demonstrating approval of the accreditation.

Deliverable D3.1 – Networking data base

Deliverable Number	D3.1	Lead Beneficiary	8. UJ
Deliverable Name	Networking data base		
Type	R — Document, report	Dissemination Level	SEN - Sensitive
Due Date (month)	4	Work Package No	WP3

Description

Create standards for successful networking and collaboration between the consortium and the labour market. As a result, a networking database is created.

Roughly 20 pages in electronic format in English (annexes included).

Deliverable D3.2 – Workshops for labour market stakeholders

Deliverable Number	D3.2	Lead Beneficiary	4. AASTMT
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Deliverable Name	Workshops for labour market stakeholders		
Type	OTHER	Dissemination Level	SEN - Sensitive
Due Date (month)	6	Work Package No	WP3

Description
<p>Three workshops, one in Tunisia, one in Egypt and one in Jordan, concerning the application of blue economy approaches to industry and labour markets</p> <p>These will be released publicly on the project pages.</p> <p>Academic personnel and stakeholders (industries, associations, public authorities, etc.) are the target audiences</p> <p>Each workshop is expected to have 40 participants. Each workshop will last for one day.</p> <p>Social media announcement, website, videos, and photos, including images and captions, as well as a summary of workshop</p> <p>The workshops will be documented via reports including invitation, agenda, signed attendance list, feedback form and their analysis.</p> <p>Roughly 30 pages in electronic format in English (annexes included).</p>

Deliverable D4.1 – Capacity building plan

Deliverable Number	D4.1	Lead Beneficiary	3. UNIPA
Deliverable Name	Capacity building plan		
Type	R — Document, report	Dissemination Level	PU - Public
Due Date (month)	24	Work Package No	WP4

Description
<p>Objectives of the training courses, course titles and contents, materials used, selection criteria, student and staff numbers, and training methodology are all specified in the report that details the trainers' training, around 30 pages in English, in electronic format.</p>

Deliverable D4.2 – Summer schools for teaching staff

Deliverable Number	D4.2	Lead Beneficiary	1. ULCO
Deliverable Name	Summer schools for teaching staff		
Type	OTHER	Dissemination Level	SEN - Sensitive
Due Date (month)	18	Work Package No	WP4

Description
<p>The Summer School is documented through a report illustrating agenda, number of persons attending, scientific contributions, satisfaction survey and its analysis. 20 pages in electronic format, English, including annexes</p>

Deliverable D4.3 – Winter schools for teaching staff

Deliverable Number	D4.3	Lead Beneficiary	2. U.AEGEAN
Deliverable Name	Winter schools for teaching staff		
Type	OTHER	Dissemination Level	SEN - Sensitive
Due Date (month)	22	Work Package No	WP4

Description			
The Winter School is documented through a report illustrating agenda, number of persons attending, scientific contributions, satisfaction survey and its analysis. 20 pages in electronic format, English, including annexes			

Deliverable D4.4 – Master programme launched in the three countries

Deliverable Number	D4.4	Lead Beneficiary	3. UNIPA
Deliverable Name	Master programme launched in the three countries		
Type	R — Document, report	Dissemination Level	PU - Public
Due Date (month)	25	Work Package No	WP4

Description			
Report describing the launch of the new Master program, the number of students enrolled, the details of the new training modules' curriculum, learning outcomes, skills, framework, number of hours and ECST for each module, and so on.			

Deliverable D4.5 – Summer/winter school for students

Deliverable Number	D4.5	Lead Beneficiary	3. UNIPA
Deliverable Name	Summer/winter school for students		
Type	OTHER	Dissemination Level	SEN - Sensitive
Due Date (month)	32	Work Package No	WP4

Description			
The Summer/Winter School is documented through a report illustrating agenda, number of persons attending, targeted learning outcomes and teaching/learning materials used, satisfaction survey and its analysis. 20 pages in electronic format, English, including annexes			

Deliverable D5.1 – Laboratories setup and linked together

Deliverable Number	D5.1	Lead Beneficiary	5. ALEXANDRIA.U
Deliverable Name	Laboratories setup and linked together		
Type	OTHER	Dissemination Level	PU - Public
Due Date (month)	24	Work Package No	WP5

Description			
The set up of the labs is documented through a report providing the details of each lab, and the strategy for using them in future research and project cooperation Electronic format, roughly 20 pages in English (the annexes included).			

Deliverable D6.1 – Website ready and social media active and running

Deliverable Number	D6.1	Lead Beneficiary	4. AASTMT
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Deliverable Name	Website ready and social media active and running		
Type	DEC —Websites, patent filings, videos, etc	Dissemination Level	PU - Public
Due Date (month)	4	Work Package No	WP6

Description
Screenshots from social media and other sources for the project. Approximately 10 pages in English, electronic format

Deliverable D6.2 – Communication Plan

Deliverable Number	D6.2	Lead Beneficiary	4. AASTMT
Deliverable Name	Communication Plan		
Type	R — Document, report	Dissemination Level	SEN - Sensitive
Due Date (month)	12	Work Package No	WP6

Description
Document outlining the communication strategies to raise the project's visibility among the national academic community, students and stakeholders, including activities, targeted groups, responsibilities, desired outcomes, newsletters and social media use (i.e Facebook live). In English, roughly 30 pages in electronic format

Deliverable D6.3 – Dissemination, exploitation and sustainability Plan

Deliverable Number	D6.3	Lead Beneficiary	3. UNIPA
Deliverable Name	Dissemination, exploitation and sustainability Plan		
Type	R — Document, report	Dissemination Level	SEN - Sensitive
Due Date (month)	22	Work Package No	WP6

Description
Plan outlining the dissemination activities, exploitation and sustainability strategies. It includes activities, responsibilities of each partner, means, tools, timeframe, and targeted values. Electronic format, in English, approximately 30 pages (with annexes included).

Deliverable D6.4 – Motivational workshops

Deliverable Number	D6.4	Lead Beneficiary	4. AASTMT
Deliverable Name	Motivational workshops		
Type	OTHER	Dissemination Level	SEN - Sensitive
Due Date (month)	32	Work Package No	WP6

Description
Motivational seminars in Egypt, Tunisia and Jordan. Target groups are: academic staff, students, associated partners, industries, professionals, stakeholders. Estimated number of participants: 100 persons

Duration of the event: 1 day each.

They are documented through a report containing, agenda, invitations channels and advertisement means, lists of attendees per each targeted group, feed-back form and its analysis by the consortium.

LIST OF MILESTONES

Milestones					
<i>Grant Preparation (Milestones screen) — Enter the info.</i>					
Milestone No	Milestone Name	Work Package No	Lead Beneficiary	Means of Verification	Due Date (month)
1	Kick-off meeting	WP1	1-ULCO	Social media announcements, agenda, signed presence list, and photos Target groups: consortium representatives for each beneficiary Number of estimated participants: 20 Duration of the kick-off meeting: 4 days	2
2	Partnership agreement	WP1	1-ULCO	Official document signed by all partners: electronic format, in English, approximately 50 pages (annexes included), for internal use only.	6
3	Interim report and financial statement	WP1	1-ULCO	The approval of the mid-report and financial statements by EACEA All of them will be available in electronic English format.	18
4	Final report and financial statement	WP1	1-ULCO	The approval of the final report and financial statements by EACEA	36
5	Quality evaluation by assurance center education committee for the new or upgraded curriculum	WP2	2-U.AEGEAN	The quality evaluation will be documented by the reports of assurance center education committee	14
6	Model and format of workshop on the blue economy for the labour market agreed	WP3	4-AASTMT	Report detailing meetings with beneficiaries to agree on format, invitations and organization of workshops	4
7	The model and format for summer/winter schools agreed	WP4	1-ULCO	Announcement on a website, social media, attendance logs, and photos	15
8	Received quotations are evaluated	WP5	4-AASTMT	List of equipment purchased, official documents. Photos, live -stream videos for the new equipment inside the laboratories, verification emails from the trade companies to the ULCO and UNIPA	20

Milestones					
<i>Grant Preparation (Milestones screen) — Enter the info.</i>					
Milestone No	Milestone Name	Work Package No	Lead Beneficiary	Means of Verification	Due Date (month)
				confirming that the buying process is done, and then the receipt must be sent directly to the ULCO and UNIPA from the university. During the consortium meetings, members have the right to ask to visit the new labs.	

LIST OF CRITICAL RISKS

Critical risks & risk management strategy			
<i>Grant Preparation (Critical Risks screen) — Enter the info.</i>			
Risk number	Description	Work Package No(s)	Proposed Mitigation Measures
1	Conflict between partners and beneficiaries The impact: lack of agreement throughout; lack of a strategic memorandum of understanding; bad performance outcomes. The likelihood of its occurrence is low.	WP1	<ul style="list-style-type: none"> • The consortium must enjoy the art of negotiation, which prevents conflicts at their source. • The project coordinator is ultimately responsible for conflict resolution (PC).The PC will guarantee that all rulings are made fairly, ethically, and within the bounds of the consortium. However, if difficulties are impossible to solve, the first step in resolving them will be for the PC to discuss the issue with the interested parties in an attempt to reach an agreeable solution. If no resolution is reached, the next step will be to present it to the Steering Committee (SC). If the matter cannot be addressed with the parties' consent, it may be necessary to approach the Erasmus+ National Agency, depending on the nature of the conflict.
2	Legislation issues Impact: Legislation changes concerning higher education, e-learning, financial rules, procurement and taxation The likelihood of its occurrence is medium.	WP1	The consortium will take all the measures to monitor legislative changes and develop strategies in advance to minimize adverse impacts.

Critical risks & risk management strategy			
<i>Grant Preparation (Critical Risks screen) — Enter the info.</i>			
Risk number	Description	Work Package No(s)	Proposed Mitigation Measures
3	Late response of the project partner(s). The impact: Lowering the project's overall success. Postponed tasks will not have the same reach and societal impact as BLUE-ERA. The likelihood of its occurrence is low.	WP5, WP4, WP6, WP2, WP3, WP1	<p>Each partner's tasks have been divided up and communicated since Blue-ERA's proposal submissions.</p> <ul style="list-style-type: none"> • The PC closely observes implementations of the project activity that will finish on time, also continuously communicates directly with activity leaders and ensures tasks are completed on time. • External time delays are forwarded to the Steering Committee, which is in charge of determining the appropriate course of action.
4	Delays in the acquisition of equipment. Impact: students will be unable to finish their research projects and will be worried about the approaching deadline. The likelihood of its occurrence is low.	WP5	<ul style="list-style-type: none"> • The procurement procedure might be problematic and hence requires special attention. It will begin at the onset of the project. The partners have already developed a list of required equipment, software, and so on, taking into account the suppliers' perspectives and the assigned money. Starting early and knowing the process well reduces risk. • Second, there are senior professors and executives on the initiative who understand and have some clout with their universities' bureaucracies. This reduces the risk even further.
5	Time delays in the accreditation approval of the master's degree from the responsible authorities at the beneficiary universities. Impact: delay in establishing the first intake of the master's degree. The likelihood of its occurrence is low.	WP2	<ul style="list-style-type: none"> • Senior professors, executives, and powerful individuals will be part of the consortium, and the memorandum of understanding will outline the agreement, timeframes, deliverables, tasks, and expectations. • The beneficiary universities are well-established and deeply rooted; they have strong leadership capable of obtaining accreditation.
6	Insufficient funding to carry out vital actions. Impact: Certain activities and travel may be decreased or cancelled, and the project may be changed to reflect the realities of the new budget. The likelihood of its occurrence is medium.	WP1	<ul style="list-style-type: none"> • The Blue-ERA budget is characterised by transparency, credibility, and clarity. It is directed and planned to achieve the best possible results with the Erasmus+ fund. So, the proposal and the schedule for payments, contributions (by the partners), and depreciation will be spelled out in the grant and partnership agreement. That means that going into the project all necessary funds will be accounted for. • Throughout the project, a task (T1.1) is allocated to finance management for strict monitoring. • If there are unanticipated circumstances that require modifications, they will be made within the terms of the agreement, and an amendment may be filed if necessary.
7	Risk: The blue economy's transfer culture is an initiative that has piqued the curiosity of the labour market. Impact: shortage of employability as a result	WP3	The consortium is already aware of the local needs and has a work package (WP3) targeted at networking with the labour market, as well as seminars and workshops for labour market participants (WP6). The feedback they offer will be used to modify the activities so that they

Critical risks & risk management strategy			
<i>Grant Preparation (Critical Risks screen) — Enter the info.</i>			
Risk number	Description	Work Package No(s)	Proposed Mitigation Measures
	of the absence of collaboration between industry and academics. The likelihood of its occurrence is low		are more effective in enhancing cooperation with academia and student employability. The addition here is that the graduates of this master's degree will be unique.
8	Risk: Delays and issues with service delivery and outsourcing. Financial impact: on the project (overcharging) and output quality (not delivering what was agreed). The likelihood of its occurrence is low.	WP1	<ul style="list-style-type: none"> To begin, the consortium will hire recognised experts. Second, an MOU will outline the agreement, timeframes, deliverables, tasks, and expectations.

TECHNICAL DESCRIPTION (PART B)

COVER PAGE

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

Note: *Please read carefully the conditions set out 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:	Curriculum Development for the Sustainable Blue Economy Study toward the achievement of Ocean Decade in Tunisia, Egypt, and Jordan
Project acronym:	BLUE-ERA
Coordinator contact:	Rachid AMARA Université du Littoral Côte d'Opale

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#@APP-FORM-ERASMUSBLSII@#

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

PROJECT SUMMARY**Project summary (in English)**

The main objective of the current proposal on BLUE-ERA is the establishment of a novel master's degree program for sustainable blue economy in the south Mediterranean region (Region 3 countries: Tunisia, Egypt and Jordan). Our ultimate objective is to use ocean resources on sustainable manner for local economic growth needs, improved livelihoods, entrepreneurship to local needs and generating employment (empowerment of youngs) while preserving the health of ocean ecosystems. Participating countries in this proposal are two universities from each country in the south (Egypt, Tunisia and Jordan) in addition to three universities from the EU (France, Italy, and Greece). During the project period (3 years), there will be many activities; including gap analysis, lab installation and field trips for the practical work, capacity building for the staff and students, summer and winter schools, and training in European universities. There will also be an online and face to face seminars and workshops, as well as knowledge dissemination events. Eligibility for admission to the proposed MSc program, candidates of various fields (e.g. marine sciences, geology, geophysics, environmental engineering, coastal zone management, environmental economy, etc.) will be invited. Expected outcomes are of highly qualified graduates in fields of sustainable blue economy. Thanks to the BLUE-ERA consortium for their significant contribution in the development of exchanges of knowledge, expertise and good practice tools for professional and entrepreneurial integration, employability and professionalization of students will be promoted. The sustainability of the proposed plan will guarantee the continuation of the master's program far beyond the end of the project. In addition, the interconnection between laboratories and future research collaborations will strengthen the research capacity in the field of blue economy, including the establishment of co-supervised postgraduates and PhD fellows.

#\$PRJ-SUM-PSS\$# #@REL-EVA-RE@# #@PRJ-OBJ-PO@#

1. RELEVANCE**1.1 Background and general objectives****Background and general objectives**

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

Describe the background and rationale of the project.

How is the 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)?



Our oceans and seas need a paradigm shift to be sustained. Marine resources are increasingly threatened, degraded, or destroyed by human activities, reducing their ability to provide crucial ecosystem services. Important classes of threats are, among others, climate change, marine pollution, unsustainable extraction of marine resources (overfishing, oil and gas fields' exploration), and physical alterations and destruction of marine and coastal habitats and landscapes. The deterioration of coastal and marine ecosystems and habitats is negatively affecting human well-being worldwide and cause potential conflicts among users. The recent EU Blue Economy Report (European Commission, 2022) highlights the importance of sustainable management of seas and that clean and healthy seas are drivers and enablers for national and regional economies, social development and poverty eradication. A sustainable blue economy should be seen as a central part of the solution for the greatest environmental challenges that the European Green Deal (EGD) aims to address.

Our main concern here is the preservation of our beautiful Mediterranean Sea and the development of a sustainable blue economic zone off the coasts of developing countries. The Red Sea's sustainability is also noteworthy, with one of its distinguishing features being that it is considered a strategic area due to its proximity to the Indian Ocean and the Mediterranean. In addition, there is a list of hot topics facing the Red Sea. According to Bourtsoukidis et al. (2020)¹, hydrocarbon fumes erupting from the Red Sea's bottom are contaminating the atmosphere at a rate comparable to the emissions of certain significant fossil fuel exporting countries. In this context, we propose in this project the implementation of a master's degree in sustainable blue economy in three beneficiary countries (Tunisia, Egypt, and Jordan) with the objectives (i) to develop the appropriate skills and competences and mobility opportunities for the new generations of students, scientists and professional to tackle the environmental, societal and economic challenges for sustainable blue economy and (ii) to support the creation of career opportunities in this field. Those countries are located in Region 3 (South Mediterranean countries) in the call guidelines, but they really serve two seas; the Mediterranean Sea and the Red Sea. Tunisia and Egypt are located on the Mediterranean, and Jordan is located on the Gulf of Aqaba in the Red Sea. Egypt is bordered eastward by the Red Sea. According to the call guidelines, Key Action 2, the project must be managed by EU countries. Thus, there are our EU Member States (Italy, France, and Greece). This will be the first degree in postgraduate studies related to the development of a sustainable blue economy in Region 3. As a result, the MSc programme will follow the Bologna process strategy 2020 in higher education, as it is a strong base to be followed.

BLUE-ERA will anchor approaches towards achieving blue economy in the aforementioned developing countries and the southern east Mediterranean basin and the Red sea, where each country faces a unique set of political and economic conditions that govern the use of seas and marine resources. Complicated problems face the eastern Mediterranean basin, among them: seabed mining, oil and natural gas extraction tensions, overfishing, conservation of marine biodiversity, lack of marine spatial planning, increasing rate of coastal urbanization and the maritime transport activities. Also, the Red Sea is a unique source of greenhouse gases (GHGs).

Activating of the **BLUE-ERA** in this region, where there are differences in cultures, dialects, beliefs, age groups, and genders, but they all share the fact that they are Mediterranean countries and residents of countries overlooking one of the world's most important seas. This project will help spread awareness of the sustainable blue economy, not only among the Mediterranean countries but also to the last point on the African continent and the Middle East.

BLUE-ERA expands on the background and guidance offered by the Sustainable Development Goals (SDGs) in the following order, according to their priority in our proposal: SDG 14: life below water; SDG 13: climate action; SDG 8: decent work and economic growth; SDG 7: affordable and clean energy. Furthermore, the master's programme is designed in accordance with the outlines of the "blue economy in the Mediterranean," as reported in the Union for the Mediterranean Report (2017)⁴. According to SGD indicators reported by the World Bank (2021)², there are many ups and downs where there is instability.

BLUE-ERA is in keeping with the **call's general objective**, where **BLUE-ERA** firstly supports people's professional, personal, and educational growth via this master's degree that will continue after the completion of the project in the countries benefiting from the project. Secondly, fostering excellent employment, training, reskilling and upskilling of workers to promote the creation of blue jobs and sustainable growth.

It is noteworthy, as stated in the detailed agenda for the blue economy³. By promoting offshore renewable energy, carbon-free marine transportation, and greening ports, the blue economy helps combat climate change. The blue economy encourages updating the regulations for the design of fishing equipment and ship recycling, and the decommissioning of offshore platforms will increase the circularity of the economy.



Besides, the blue economy is also creating green infrastructure in coastal areas that will support tourism and the coastal economy while preserving biodiversity and ecosystems.

It is concluded that the **BLUE-ERA** enhanced THE PRIORITIES IN ERASMUS+ SECTORS by highlighting the **ENVIRONMENT AND THE FIGHT AGAINST CLIMATE CHANGE** as priorities. The **BLUE-ERA** will demonstrate the importance of conserving our oceans and seas because they are the primary carbon dioxide storage sites and the ocean is the primary engine for resolving the climate change crisis. Furthermore, since the UN's Ocean Decade actions, the world has been concerned about the oceans' true role in protecting us from the consequences of climate change. Every person has a duty to protect the ocean. We invite both youth and adults to enrol in this master's degree through various modules that demonstrate the interference between ocean and atmosphere interactions as well as marine spatial planning, which is almost unique in the area under the application of the master's degree. Under the management of the EU states, they will jointly publish the path to achieving a sustainable blue economy in the south Mediterranean countries (Region 3).

In other words, regarding the ERASMUS+ SECTOR SPECIFIC PRIORITIE in the field of higher education, by **SUPPORTING STUDENTS' INNOVATION AND ENTREPRENEURIAL SKILLS**, for example, by assisting them to be pioneers in marine spatial planning in their countries, which primarily helps to achieve a blue economy for coastal communities, where such an approach is lacking in the south Mediterranean countries (Region 3). Moreover, **BUILDING INCLUSIVE, INTERCONNECTED, HIGHER EDUCATION SYSTEMS** through the Bologna process strategy in higher education under the supervision of EU member state countries.

BLUE-ERA contributes to the aim of the call where, the master's degree permits major changes in people's behaviour and capacities, notably in future generations, as well as future-oriented courses targeted at protecting and restoring ecosystems and biodiversity, therefore achieving **THE GREEN DEAL** objectives. Furthermore, the **BLUE-ERA** aimed for **SUSTAINABLE GROWTH AND JOBS**, as stated in the call, where education is required to develop skills for life and work. Education also helps with employability and is a prerequisite for sustainable growth. **BLUE-ERA** will bring different job opportunities, which in turn will be filled with highly qualified people.

Developing countries are almost completely cut off from the rest of the world in the "sustainable blue economy." The idea for these master's degrees came from individuals who attended training in Europe about the blue economy and found that no one in the developing countries that are part of the Mediterranean's communities knew much about this subject. The partner countries in the BLUE-ERA are from Region 3. They do not have the resources in their studies to initiate the programme themselves due to the high costs of marine and related activities in higher education. The best proof that there is no available data in the south Mediterranean is available online for free or for a fee.

The **BLUE-ERA** views technology transfer explicitly in the hands of experienced blue economy experts, from the north to the south of the Mediterranean and the Red Sea, as a means of creating a full generation that cares about the ocean and every problem it faces, as well as every organism and creature that lives there. Also, entering new blood into the world of blue economy may promote the activation of a sustainable blue economy on a global scale, increasing the chances of accessing new ways and ideas for a blue economy. **BLUE-ERA** promoting with power the Ocean Decade under the umbrella of "The Science We Need for the Ocean We Want".

References

- 1- Boutsoukidis, E., Pozzer, A., Sattler, T. et al. The Red Sea Deep Water is a potent source of atmospheric ethane and propane. *Nat Commun* 11, 447 (2020). doi.org/10.1038/s41467-020-14375-0 , www.nature.com/articles/s41467-020-14375-0
- 2- <https://data.worldbank.org/indicator>
- 3- https://oceans-and-fisheries.ec.europa.eu/ocean/blue-economy/sustainable-blue-economy_en
- 4- https://ufmsecretariat.org/wp-content/uploads/2017/12/UfMS_BluEconomy_Report.pdf

1.2 Needs analysis and specific objectives

Needs analysis and specific objectives

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

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

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

BLUE-ERA is a capacity-building project in the field of higher education that aims to establish a MSc. for sustainable blue economies, transfer a lot of knowledge in the field of sustainable blue economies. There are only five master's programmes about the blue economy in Europe. What are our expectations for the relationship between individuals and researchers in developing countries (Tunisia, Egypt, and Jordan) and the blue economy? Ordering to motivate the future generation of entrepreneurs and stakeholders in Tunisia, Egypt, and Jordan, as well as to advance higher education in three countries. Particularly, the project aims to the following objectives:

Advance higher education standards in Tunisia, Egypt, and Jordan and promote its connection to local and global markets, particularly blue jobs. This goal will be realized by incorporating local and global market needs into the project and evolving the modules contained within it. Furthermore, the project will be promulgated to local and global markets through the power of the media to ensure long-term interest in the region's sustainable blue economy. Also, the communication with industry, stakeholders, and responsible authorities, as well as the possibility of providing our graduates with suitable employment opportunities, will be considered.

BLUE-ERA increases the professionalism of students from developing countries and increases opportunities for job occupations. This is accomplished through instructing students in highly sought-after optimal methodologies, modern approaches, and numerical methodologies such as programming languages, as well as research methods and decision-making skills. This combination among three countries from the southern Mediterranean (Region 3) and three EU member states, all represented by a group of deeply rooted universities as well as experienced professionals, is exclusive and unbelievable and will draw attention to these students' academic and industrial work. Further, the students will push to work on the collection of the required data (marine data) themselves, using the facilities of their universities and the new labs that will be implemented during this project. After that, there will be true case studies in the thesis, which will be suggested in cooperation with the labor market's needs. Some of the blue economy's available concerns include fishing and aquaculture, marine renewable energy (offshore wind energy production, wave energy production, tidal energy production), marine biotechnology (pharmaceuticals, chemicals, seaweed harvesting, seaweed products, marine derived bio-products), minerals (oil and gas, deep-sea mining), and marine manufacturing (boat manufacturing, sail making, net manufacturing, boat and ship building). Which shows a wide range of applications in the global market. Lastly, the contact and interaction advantages given by BLUE-ERA's events will give participants the necessary links to the global market, which in turn **enhances the student's grade of competence and provides high-level job opportunities** in comparison to other students.

Encourage comprehensive and justice education in Tunisia, Egypt, and Jordan; this master's degree contains no racism. Students from different countries will be able to apply, regardless of gender, color, religion, or any other type of discrimination. As part of its capacity-building efforts, the consortium will bring in a number of young professionals, such as PhD students in marine science, oceanography, and other fields related to the blue economy. Seeking to provide them with the knowledge of how to initiate an educational programme from A to Z. Further, aside from the fact that the different educational platforms will be used for uploading class materials and for student inputs, it will also help EU members follow what is going on clearly and directly. All used platforms will be mentioned later. Furthermore, if there are online workshops, meetings, or other events, the platforms will help establish contact between all EU state members and Region 3 members. If some students from countries other than Region 3 wish to enroll but are unable to obtain visas before the start of the semester, in this case, virtual and distance learning are intrinsically beneficial to different genders, and residents from various geographical areas may benefit equally. Also, in case of global pandemic.



The cooperation of six higher education universities from Tunisia, Egypt, and Jordan will be strengthened through the **sharing of best practices**, staff training with European universities, and visits by European academics and researchers. It is noteworthy that there will be an organised summer school in the blue economy launched in the first year for one week for young professionals and consortium members together, and that there will be a plethora of time to contact directly with the young people and see their imagination about the future of the blue economy. The summer school will be launched as an international call will be implemented at one of our partners from the EU's member states, and students globally, especially women, are encouraged to enrol for the same reason. The master's degree program, demonstrates a type of direct capacity building and broadens everyone's horizons in order to push them into the world of the blue economy, will be followed by a summer school for the qualified students.

In the project countries (Region 3), there will be **encouragement for entrepreneurship and innovation**. Students will be trained in research centres affiliated with our partners where real-life and business opportunities exist, and they will apply that knowledge to real-world problems specified in collaboration with industry in the blue economy. Specific numbers of online workshops will be organised for brainstorming parallel to students' training to think of the entire procedure of the problem to the ideal solution; the number of workshops will depend on case needs.

In conclusion, this project aims to increase the power, efficiency, and reliability of scientific research in the maritime field with regards to the blue economy. Further measurements that will be recorded as part of this project will contribute to Mediterranean Sea reports through the outcomes of the student's thesis and publications on the case of the southern Mediterranean basin, which are almost non-existent because of the high prices of these measurements. Especially highlights SDG 14's targets, particularly "improve research capacity, scientific knowledge, and share marine technology to not only enhance ocean health but also improve the role of marine biodiversity in developing countries." Train the participating academic and administrative staff in the BLUE-ERA M.Sc. program. Also, establish mechanisms and evaluation criteria that give a full analysis of the educational process and modules contents, as well as help to identify their strengths and weaknesses. Implement innovative learning methods and new collaboration platforms to support the educational process. Demonstrate the program's benefits using the Bologna Process principles and European quality in education standards. Include case studies of best practices and experiences from around the world. Integrate decision-makers, academic staff, NGOs, and labour marketing together. Regarding the **needs analysis** and **BLUE-ERA** project implementations, there are four main needs to run this project:

A- Mediterranean Sea and Red Sea:

Taking into consideration the lack of marine spatial planning, the growing and cumulative coastal and marine human activities and the evolving political, social and environmental conditions in the Mediterranean Sea and Red Sea, there is an urgent need to develop approach for a sustainable blue economy preserving the health of marine ecosystems, improving livelihoods and jobs while supporting economic growth in the different countries. Maintaining healthy seas (i.e. conservation of marine ecosystems and the restoration of those degraded) and the sustainable use of marine resources will be drivers and enablers for Mediterranean national and regional economies.

B- Local needs in (Region 3)

The **local needs of Tunisia, Egypt, and Jordan** each country has its own problem that faces marine resources in the Mediterranean or Red sea that are managed by its authority. Further, there are other bodies of water, like lakes and rivers, in Tunisia, Egypt, and Jordan. Moreover, in countries like Egypt, there is the Baby Ocean (Red Sea), which is a great habitat for unique and incredible coral reefs. All these marine resources need to be preserved for future generations. Here, we face the fact that we are going to have a new generation that will present our future in Region 3 and that will appreciate a lot what it means to have a sea, river, or lake in his or her country. After a few years, love of the seas and oceans will be instinctive and not just part of the curricula taught in universities in the whole region. **These are the highest values that can be achieved.** Creating an entire generation that strives alone to preserve the sea and ocean because it knows their value and not by imposing laws and financial fines.

C- The Global needs

There is a global need for SDG supporting, particularly "life below water" and "climate action." The sustainable blue economy approach intends to protect the environment, while providing a coherent approach across the blue economy sectors and facilitating their coexistence and synergies in the maritime space. It must be mentioned that continual exploration of non-renewable energy sources, such as natural gas fields in the southeast Mediterranean basin and Red Sea, has led to the realization that everyone now seeks to learn how to sustain marine resources, the environment, and mitigate climate change impacts by studying the sustainable blue economy and spreading awareness of the risks and benefits, which will lead to a better future for all of us. To this end, **the implementation of innovative, integrated and**

transdisciplinary approaches linking traditionally segmented sectors of the blue economy is needed. The MSc. in sustainable blue economies will develop, through transdisciplinary approaches, competences and professional skills to respond to immediate and longer-term societal challenges around climate change, sustainability, food security, exploitation of energy sources, etc. **The effectiveness of the objectives and needs will be achieved through sharing partner countries' universities expertise.** Regarding Tunisia, Egypt, and Jordan, they have considered experience in the marine sciences and related fields but no prior experience or knowledge of the blue economy. As a result, there will be an ideal sharing. Also, the outcomes at the end of the project will confirm the gains through high-level international scientific publications.

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

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

Regarding the way in which the BLUE-ERA builds on **the results of past activities that were carried out in the field**, there are two parts to the answer: the first part focuses on the sustainable blue economy, and the second part is the relation between the BLUE-ERA and past activities regarding capacity building in education. Regarding the sustainable blue economy, it will be built on the basis of the marine sector and maritime activities. Also, specialised educational institutions have deep ties to marine issues. People are adaptable enough to add this type of knowledge about the blue economy, but they lack support and guidance. **For instance**, educational institutions that are working in the maritime sector in Egypt have no previous knowledge about ocean governance and marine spatial planning, despite the importance of those topics to protecting and sustaining marine resources. Regarding the second part, BLUE-ERA will build on the past activities of project "Climate Change Management through Mitigation and Adaptation (AdapTM)", funded by Erasmus+ Key Action 2: Capacity Building in the Field of Higher Education, in the period from 2017 to 2020. BLUE-ERA will use the supercomputer bought during (AdapTM), which is extremely important when working on coupling between climate and ocean numerical models, as a part of the modules and for students' research. The supercomputer is almost unique. **Establishing an MSc programme that is novel** to the Tunisian, Egyptian, and Jordanians universities and providing the context-specific information required to sustain marine resources and any related field to the maritime sector and their way to the blue economy in Tunisia, Egypt, and Jordan. The European University partners implicated in this project (ULCO, UNIPA, UAEGEAN) are involved in many European research projects in relation to the issues of the blue economy (i.e. OBAMA NEXT: HORIZON-CL6-2022-BIODIV; Valgorize: Interreg 2 seas; JERICO S3: H2020 INFRAIA) and contributes with their expertise to the knowledge of the oceans and their resources, monitoring of the marine environment and coastal zones and the sustainable development of maritime activities. These expertise will be used for the training and supervision of students and doctoral candidates in the framework of the MSc. in sustainable blue economies.

The BLUE-ERA will bring together all partners expertise within an attractive programme embracing a holistic and transdisciplinary approach providing a unique opportunity to strengthen research and graduate education to address the main environmental, societal and economic challenges in fields related to the blue economy. BLUE-ERA graduate programme will promote transdisciplinarity, innovation by cross-fertilisation, immersion in research laboratories, international mobility and connections with the socio-economic. BLUE-ERA will make research-based teaching central to its mission by: (I) organising a transdisciplinary summer school: Over the course of one week, students will participate in high-quality subject-specific lectures, interactive seminars and activities. Experts from academic and non-academic fields will be invited, (II) increasing the number of teaching units dedicated to practical work with full immersion in laboratories or companies. In addition, the programme will promote lifelong learning to provide new opportunities for lifelong learning and enable professional experience to count towards academic qualifications.

Approaching the problem holistically is highly difficult; hence, outcomes are largely determined by Inter- and trans-disciplinary methods. Among our concerns is working with the decision makers who help facilitate the **BLUE-ERA** process while facilitating qualified students' integration into the national and international labor market. Also, helping the graduates get job opportunities and being innovative at their institutions. The



unique behaviours in AAMST that cover the Arabian region will expand BLUE-ERA feedback to affect all Arab countries.

European added value is delivered to (Region 3) by first sharing their knowledge about the sustainable blue economy. Secondly, sharing the successful European experience of updating curricula with project partners in the south Mediterranean who are eager to sustain their marine resources and invest through the blue economy. This is done in a sustainable approach that adheres to European principles. Europe has made outstanding efforts in recognizing the potential of ocean observation and developing adaptation strategies for the sustainable use of marine resources. Also, Europe has made significant technical gains through successful collaboration among universities, research, industry, and business in discovering and bringing new solutions to market. The project will include experts from EU partners to ensure effective sharing in the master's degree. Master's students may learn directly from European partners and immerse themselves in the creative environment. European universities will be encouraged to do the same in their own nations. The mentors will learn how to guide the next generation of innovators. Academia will learn how to collaborate with industry in order to solve real-world challenges. The collaboration in teaching endeavours will be of mutual benefit. It strengthens international education programmes and provides our staff and students with inter-cultural and interdisciplinary competence, as well as technological expertise, to address issues of sustainable marine resource management. Education and teaching will be done against the background of the given socio-economic and cultural settings.

Trans-national dimension, BLUE-ERA project brings together three European countries, two African countries, and one country from western Asia, although they are all located in the Mediterranean region with comparable temperatures and issues. The ability to exchange expertise and data on the marine environment, human activities, ecosystem protection/restoration actions, governance and marine spatial planning pertaining to the southern Mediterranean, which has not existed for many years, will help the EU countries make better evaluations about this area of the Mediterranean.

EU Grants to Tunisian universities: FUNDING SOURCE (FS): ERASMUS2027 , **PROJECTs (Ps):** "AIRES/ 101082645-ERASMUS-EDU-2022-EMJM-DESIGN", "LIVECLIC/ 2021-1-EE01-KA220-VET-000025360", **(FS):** ERASMUS +, **(Ps):** "GEOMAG/ 598217-EPP-1-2018-1- TN-EPPKA2-CBHE-JP", "MEHMED/ 598826-EPP-1-2018-1- ES-EPPKA2-CBHE-JP", "CLICHA/ 586273-EPP-1-2017-1-ELEPPKA2-CBHE-JP", " PROEMED/ 573644-EPP-1-2016-1-IT-EPPKA2-CBHE-JP". Also, **FUNDING SOURCE (FS):** ERASMUS2027, **PROJECT (P):** "101092496", **(FS):** ERASMUS +, **(Ps):** "400586295", "400586452", "400573852", "400610373", "400617742".

EU Grants to Egyptian universities: [2017-2020, **FUNDING SOURCE (FS):** Erasmus +, **PROJECT (P):** "Climate Change Management through Mitigation and Adaptation / (AdapTM)"], [2013-2016, **(FS):** EUROPEAN COMMISSION , **(P):** "Development of a Higher Education and Research Area between Europe and the Middle East (HERMES)"], [2013-2015, **(FS):** EUROPEAN COMMISSION, **(P):** "Green Innovation and Entrepreneurship Programme (GIEP)"], [2012-2015, **(FS):** EUROPEAN COMMISSION, **(P):** "Mediterranean Decision Support System for Marine Safety"].

EU Grants to Jordanian universities: [2020-2022, **FUNDING SOURCE (FS):**DG-ECHO UCPM-2019-PP-AG, **PROJECT (P):** "Best Rapid Environmental Assessment Decision system (BE-READY)"];[2022-2024, **(FS):** ENI-CBC MED, **(P):** "Fostering knowledge transfer to tackle marine litter in the Med by integrating EbA into ICZM"]; [2012-2015, **(FS):** ENPI-CBC MED, **(P):**"Managing the Environmental Sustainability of Ports for a durable development (MESP)"]; [2012-2015, **(FS):**ENPI-CBC MED, **(P):** "Inclusive governance for sustainable Mediterranean coastal metropolis (MEDSEATIES)"]; [2013-2016, **(FS):**ENPI-CBC MED, **(P):**"Risk assessment analysis on offshore platforms in Mediterranean (RAOP-MED)"].

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2. QUALITY

2.1 PROJECT DESIGN AND IMPLEMENTATION

2.1.1 Concept and methodology

Concept and methodology

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

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

Methodology: The work plan is established in an efficient and transparent manner to accomplish **Blue-ERA's** objectives. The **logical framework matrix (LFM)** is the guideline for the work plan and checklist (goals, metrics, and evidence up to goal). Thus, **LFM** also outlined the essential activities. There are specific tasks to complete for each activity, with tasks embedded in thematic work packages. There are clear deliverables and milestones that must be met within each work package managed by a specific leader.

In terms of work packages, **BLUE-ERA** is a capacity-building project that aims to transfer knowledge and skills and will be implemented in the form of establishing a new master's degree for developing countries. It is necessary to have some fundamental knowledge in order to digest new information. As a result, there will be three successive stages included in the summary:

- Recognize the current situation in academia and the market for the master degree and importance of the blue economy for industry, which will be discussed through WPs (2, 3, and 4).
- Describe novel curricula, which will be discussed through WP (2).
- Create and roll up a new curriculum (development)/ In charge of implementation, which will be discussed through WPs 4 and 5.

To give an overview about the working packages: WP1 is in charge of monitoring and coordinating the whole project, it also dedicated to the management (coordinator, quality assurance, schedule, conflict resolution, budget and financials), in a way that guarantee sustainability (the continuation of the master's degree in the beneficiary universities, collaboration, and impact). Also, an effective networking approach with the labor market is presented to optimize the project's impact in WP (3). A distinct work package for communicating the project's events, activities, and outcomes is designated in WP (6).

Project budget: The budget must be designed so that it provides all beneficiaries with enough resources to fulfil their responsibilities. There are nine beneficiaries' universities. Three European universities: Université du Littoral Côte d'Opale (**ULCO**) – France, Universidad de estudios de Palermo (**UNIPA**) – Italy, University of the Aegean (**UAEGEAN**) – Greece, two Egyptians universities: Arab Academy for Science, Technology and Maritime Transport (**AASTMT**), Alexandria University (**AU**), two Tunisian universities: University of Sousse (**US**), University of Monastir (**UM**), and two Jordanian universities: University of Jordan (**JU**), Al Albayt University (**AABU**). Also, depending on the task, there are four levels of personnel engagement in the project: manager, researcher or professor, administrative, and technician, with varying remuneration (day rates) that varies by region. The objective was to set a fair budget that matches the responsibility and performance of each partner while considering variations in rates for staff, travel, etc. The six universities (**AASTMT**), (**AU**), (**US**), (**UM**), (**JU**), (**AABU**) bear more responsibility for laying a solid foundation for the project, including the development of new modules and the construction of labs, marine stations, and software. So, they have an overall larger budget than universities in (**ULCO**), (**UNIPA**), and (**UAEGEAN**). Overall, the BLUE-ERA partners will make the most of the budget in order to truly serve the needs.

Quality control: A particular assessment and monitoring mechanism will be established to give management consistent and unambiguous information regarding the effective execution of actions, allowing for resource optimization and redirection of activities that may be affected by difficulties.

Different types of **indicators**, including qualitative and quantitative indicators, including questionnaires, interview grids, and checklists, will be used as monitoring tools. The engagement of all **associated partners** will be promoted, emphasizing the significance of each body's contribution. Monitoring reports will be prepared **twice a year** and delivered to the project coordinator. Training activities, as well as performance and standardization, are considered among the qualitative criteria.

The Quality Committee (QC) is in charge of overseeing, coordinating, and providing opportunities for advancement. If an external quality assurance expert is needed for Erasmus + capacity building projects in higher education, the consortium will discuss hiring options.

The **QC** will be led by the project manager. Thus to confirm and evaluate the **Quality plan**. **QC** will consist of at least one representative from each country; its responsibilities include monitoring and assessment. At the beginning of the project, a quality, monitoring, and evaluation plan will be elaborated. The quality plan comprises a structured milestone plan based on a specific schedule, along with qualitative and quantitative monitoring and assessment criteria. The accomplishment of the project's objectives is dependent on well-defined conceptual framework, the predicted correlation between action, gains, and results and several reports have to be submitted during the project life cycle. Those reports include monitoring reports, which are required in order to govern and improve decision-making, evaluation reports at midterm and at the end of the action, followed by quality reports at the end of the semester.

Environmental sustainability: The project is based on environmentally beneficial concepts, which will be followed during all activities. Each stage of the project is guided by specific criteria that have a low impact on the environment. Also, the continuity of the master's degree after the project period is the ultimate goal of the project.

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2.1.2 Project management, quality assurance and monitoring and evaluation strategy

Project management, quality assurance and monitoring and evaluation strategy

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

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

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

Generally, the consortium and decision mechanisms are designed to fit the size of the project, which has a duration of 3 years and a consortium in 6 countries. BLUE-ERA management will be based on agile, reactive and simplified governance involving all partners. Management will be based on the following **procedures to ensure quality, transparency and sustainability**:

Effective: Effective project management includes meeting all project objectives, schedules, and reporting responsibilities. We have set motivated objectives for this project, which we want to extend beyond its existence. During decision-making, there will be real cooperation, recommendations, and execution of the best ideas. A typical council will attain its objectives and even exceed them. Master's courses will be assessed by students at the end of each semester. The results will be systematically analysed by the teaching teams and submitted to the project steering committee which will propose concrete measures in response to the students' feedback.

Efficient: The council structure is maintained at its basic level to reduce the overhead on team members. Connections are quick, and there is no excessive arrangement. Efficiency strategies encourage the early detection and correction of errors, as well as the sharing of burdens among partners to ensure non-repetition.

Transparency as well as Credibility: Documentation of all decisions and discussion; the outcomes and progress will be mutual among partners. The goal of BLUE-ERA is to set up an identically effective association among all partners' HIEs. Credibility and transparency will be key factors in the council's structure.

Accountable: Each partner must fulfil their obligations in time and efficiently. The quality committee, the coordinator, and external monitoring and quality expertise will be among the procedures implemented to guarantee that each partner believes in ownership and accountability during the three years.

Fosters ownership: Each partner will be accountable not only for the performance of their specific work but also for the success of the overall project through their engagement as a council member. The target is for the collaborators to realize that this is not a project that serves only the coordinator but that its success is everyone's responsibility.

Project Coordinator (PC) entails allocating resources effectively to evaluate progress, evaluate function-quality mechanisms, preserve regular communication with the various project team members, and ensure their participation through appropriate inspirational, leadership, negotiation, and conflict management strategies. **(PC)** is the primary point of contact for this activity. He or she oversees and manages the project daily and is responsible for confirming that the project deliverables match the needed quality. **PC** is also responsible for managing important tasks, effectively managing project communication of quality and inclusion policies, and overseeing activities linked to sustainability and monitoring. Confirming the efficient utilization of the given resources.

PC Responsibilities are: coordinating with **Work Packages Supreme Leader (WPSL)/ Work Package Leader (WPL)**, guaranteeing activity management and deadline adherence; following up on the achievement of goals within the specified time frames, and taking the necessary measures when necessary; being experienced in negotiations with stakeholders; supervising the project's legal elements, including contract management and cash flow management, as well as the preparation of the Partnership Agreement; establishing a connection between the project's leadership and operational levels; communicating with the



project officer (**PO**) to be updated and advised whenever an approval procedure for cost, operations, or corrective measures is required.

Besides the PC and the management system, the **BLUE-ERA** project envisions a more complicated multi-level management structure that is appropriate for the project's scale and breadth.

The **PROJECT STEERING COMMITTEE (PST)** is the principal decision-making group. PST is made up of a representative from each partner to ensure equal weight in decision-making. The **PST COMMITTEE** convenes as needed, preferably online, but at least once every three months, to assess the impact of project execution on continuing operations, existing procedures, personnel, and organizational attitude and to make any needed decisions.

Partnership Agreement (PA): the tasks and competencies of each entity will be described in detail in the **(PA)**, which will detail the essential interactions. Moreover, the goal of **quality assurance** is to ensure that the project meets the expected deliverables, subject to ostensible constraints, by gathering information demonstrating adherence to the project's quality management standards, methodologies, and practice guidelines as planned and giving an overview of the status of all quality management operations. Key quality assurance and quality control collections, nonconformities, opportunities for upgrading, recommendations, and corrective or improvement actions, as well as their effect and status.

The **quality assurance plan (QAP)** will include a calendar of activities as well as objectives, roles, and duties. It will include quantifiable indicators, methods, and processes for evaluating project processes and outcomes, and it will specify the responsible partner(s), timeline, tools of execution, expected results or products, and related quality requirements for each year of the project. The **QAP** will be a dynamic document, which means that methods and indicators will be re-assessed and altered as the project advances. It will be linked to other key project materials.

The **monitoring reports will be conducted through monitoring committee**, monitoring and control operations should be carried out throughout the project's duration. The monitoring committee will measure operations against project partners' defined metrics and track project performance versus the plans developed. The **control function** is responsible for identifying and implementing corrective measures required to manage deviations from the schedule. The monitoring plan will define the objectives, indicators, timetable, performance mechanisms, methods for data collection, and contribution desired by each partner throughout the project's lifespan. The project is ascertained at the end of each phase using a formal review and approval procedure that corresponds to the milestones. This process guarantees that the project's performance is evaluated and authorized by the appropriate level of management before moving on to the next phase. As a result, the phase stages contribute to the overall quality of project management and allow the project to progress in a regulated way.

NARRATIVE SUMMARY OF THE INTERVENTION LOGIC	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS AND PREREQUISITES
<p>Goal (general objective)</p> <p>Identify the broader objective to which this project contributes.</p> <ul style="list-style-type: none"> The main objective is the establishment of a master's degree programme in the sustainable blue economy. The ultimate/absolute objective of BLUE-ERA is to make the preservation of the ocean and all its hidden resources an instinct for future generations rather than a duty, as 	<ul style="list-style-type: none"> Deterioration trends in the Mediterranean and the Red Sea environments. Number of students at universities, researchers, research and educational institutions, any blue economy-related sector, companies as well as startups, etc., with knowledge in sustainable blue economy, which indicates the state of Tunisia, Egypt, and Jordan as well as the entire developing country's knowledge in 	<ul style="list-style-type: none"> University degree programmes that encompass sustainable blue economies in Tunisia, Egypt, and Jordan, as well as in the entire developing world, are almost non-existent. National labour statistics related to blue economy in Tunisia, Egypt, and Jordan, as well as in the entire developing world. International innovation indexes, such as the Global Innovation Index, which is released annually 	<ul style="list-style-type: none"> Strong leadership by the project investigator Beneficiary nations (Tunisia, Egypt, and Jordan) continue to support and invest in their universities and research organisations. The beneficiary nations' (Tunisia, Egypt, and Jordan) political and social situations are stable, allowing the BLUE-ERA consortium to facilitate simple movement to and from Europe.



<p>well as connecting technology and entrepreneurship to local needs and generating employment in the blue economy (particularly among young people) in their developing country as well as globally.</p>	<p>sustainable blue economy.</p> <ul style="list-style-type: none"> • Rates of graduates with a proclivity to work in jobs that are based on the destruction of the marine environment. 	<p>and compares innovation across nations.</p>	<ul style="list-style-type: none"> • Investment in research and innovation and receiving new technologies remains a top priority for the beneficiary nations (Tunisia, Egypt, and Jordan).
<p>Purpose (specific Objectives) List the specific objectives that projects shall achieve.</p> <ul style="list-style-type: none"> • To provide cutting-edge training in ocean research and blue economy approaches such as fishing and aquaculture, ecosystems conservation using advanced techniques like numerical modelling as well as innovation skills in order to develop the next generation of innovators in Tunisia, Egypt, and Jordan. • Development of multidisciplinary training modules on advanced approaches to the sustainable blue economy. • To improve abilities in approaches using advanced techniques such as the Dataiku artificial intelligence tool and machine learning algorithms as powerful tools of trend prediction in the Mediterranean and Red Sea, deepen the research levels of universities, enhance related local industries, and contribute to the solutions towards a sustainable blue economy. 	<ul style="list-style-type: none"> • The current modules are geared toward establishing the blue economy culture in Tunisia, Egypt, and Jordan : • Eight core modules will be completely new. • Fifteen elective modules will be modernised based on the related modules; students will choose only five modules. • Two case studies will be embraced during the project duration: one is the Mediterranean Sea, and another is the Red Sea. • Academic staff from Tunisia, Egypt, and Jordan will be trained on the new modules. • A considerable number of students will enroll in the first intake of the master's programme in sustainable blue economy (12 students at least for each beneficiary university) • Participant surveys on the development of employability/ on the importance of the Master's degree in blue economy due to BLUE-ERA skills (about 150). • Associated partners from stockholders. • The industry is asked to offer an independent evaluation of the improved employability 	<ul style="list-style-type: none"> • University data and current courses from the beneficiaries' universities show the classes taught right now that need a paradigm shift towards linkage to the blue economy. • Documents from the beneficiary universities that recognise the credits (ECTS) for the modules provide accreditation for the master's degree in sustainable blue economy from the responsible authorities: for Egypt from the Supreme Council of Universities, for Tunisia from the minister of Higher education and scientific research and for Jordan from The Ministry of Higher Education and Scientific Research. • Following the completion of the project, the following offerings will be available at BLUE-ERA programs: <ul style="list-style-type: none"> • The modules established as part of BLUE-ERA are included in the academic platform or website, ensuring that they will be available once the project is over; for Tunisia is (platform) Virtual university of Tunisia and Microsoft Teams platform, for Egypt AASTMT website Microsoft Teams for AU, and Jordanian Universities Also these 	<ul style="list-style-type: none"> • Strong leadership by the project investigator • Stakeholders are still very passionate about the project and its achievements. • In the partner nations, there is political stability and investment in education. • The Beneficiaries universities can complete all procurement, accreditation, establishing the first intake of the masters' procedures on date without delay. • Students are interested in the new master's degree programme and are eager to work on real-world challenges. • The project consortium is enthusiastic to interact with new knowledge and do more applied research, and one important perspective is to shift from science to applications in industry.



<ul style="list-style-type: none"> • To modify the technological competencies and research methods through merging the sustainable blue economy with fields related to the blue economy and known to professors, researchers, and trainees. • To overturn industries and the labour market by promoting the sustainable use of marine resources. • To contribute to the development of a labour market for sustainable blue economy applications. • To support the employability of graduates. 	<p>due to the study of the blue economy.</p>	<p>platforms will be used for student's inputs.</p>	
<p>OUTPUTS (DELIVERABLES) List the deliverables (grouped in work packages) that the project is committed to produce. These must be stated as results</p> <p>O1.1: Partnership Agreement O1.2: Setting up of the steering, impact and dissemination, and quality, committees. O1.3: Cost reports and financial statement O1.4: Monitoring plan, quality assurance process, and evaluation plan. O1.5: Final, interim, and progress reports</p> <p>O1.6: Sustainability Plan, technical report and coordination activities. O2.1: Quality evaluation outlines</p> <p>O2.2: Reviewed programmes and descriptions survey report, and MSc. Accreditation.</p>	<p>INDICATORS</p> <p>1.1 One partnership agreement signed 1.2 Management structure formalized, 1 report released. 1.3 Each 6 months midterm and one final financial report at the end of the project. 1.4 At least One quality assurance report. 1.5 One sustainability report by the completion of the project. 2.1. Report on the quality of the existing courses. That will guide the modernization. 2.2. Official accreditation of the masters will be obtained during the second year. 3.1 Database which is a list of stakeholders mostly they will our associated partners in each developing countries. 3.2 Two case studies specified with the help of the labour market (Mediterranean Sea and Red Sea). 3.3. Remote workshops</p>	<ul style="list-style-type: none"> • Deliverables and milestones for the project. • An external expert will be hired on a temporary basis to provide an independent financial, quality assessment, and monitoring report ensuring that all outputs and metrics are met. • Lists of participants at various events. 	<ul style="list-style-type: none"> • The parties engaged have expertise in running and managing multinational initiatives. They may help with contracts, financial management, and fund disbursement, among other things. • They have a streamlined and efficient process for signing and reviewing agreements. • They are willing and receptive to changing their curriculum and collaborating with national accreditation. •The project could get accreditations based on the syllabus, labs, and instrument purchases and develop all of the material concurrently. This approach was taken to enable us to accept the first intake of students during the first year. • The inflation rate is not so high that the



<p>O3.1: Guidelines for efficient networking, as well as a list of stakeholders, the majority of whom will be our associated partners in each developing country.</p> <p>O3.2: Strategy for collaboration</p> <p>O3.3: One summer school will be held at one of the EU universities, and remote workshops will be held during the project's duration</p> <p>O4.1: approach that is novel. Plan for increasing capacity</p> <p>O4.2: Teaching materials. Students must study 8 core modules and select 5 of the 15 elective modules that are strongly related to the blue economy.</p> <p>O4.3: At least three training sessions for trainers must be scheduled.</p> <p>O5.1: List of instruments</p> <p>O5.2: Lab at each beneficiary university-developing countries</p> <p>O5.3: Strategy for the joint research.</p> <p>O6.1: Dissemination Plan</p> <p>O6.2: Official pages, official pages on FB, Instagram, LinkedIn, flyers, posters, roll up, videos</p> <p>O6.3: Platforms periodically updated</p> <p>O6.4: Four motivational seminars</p> <p>O6.5: One final conference, and dissemination event</p>	<p>on application of blue economy using numerical tools (one at each University from Tunisia, Egypt, and Jordan).</p> <p>4.1 One capacity building strategy.</p> <p>4.2. Material (ppt, exercises, class notes, and so on) will be created for all classes.</p> <p>4.3. Two sessions (one at (ULCO), and one at (UNIPA) will be organized for the academic staff from Tunisia, Egypt, and Jordan. At least 58 professors and academic staff trained.</p> <p>4.4. Three updated courses delivered at each of Tunisia, Egypt, and Jordan Universities. At least 150 students are trained with a rate of 72 students/year.</p> <p>4.5 At least six business plans (at least one per institution) submitted for evaluation and feedback</p> <p>5.1. Each university will prepare a plan that shows the opportunities for using the laboratory in the future through the umbrella of the interconnected labs.</p> <p>5.2. Six labs, one per university, for students pursuing a master's degree in sustainable blue economy.</p> <p>5.3. One Memorandum of understanding (MoU) outlining the strategy for joint research and collaboration opportunities between the 6 universities (2 in Egypt, 2 in Tunisia, and 2 in Jordan.</p> <p>6.1. One dissemination strategy</p> <p>6.2Project pages on different platforms, as well as social media pages with postings.</p> <p>6.3. Newsletters will be distributed during the project. Page engagement will be</p>		<p>equipment budget we established is insufficient to set up the laboratories. This is also a problem for travel, employees, and other expenditures, but it is especially true for equipment, whose prices have been rising over the past six months.</p>
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	<p>tracked.</p> <p>6.4. Six Motivational seminars (one at each institution) for all the stakeholders.</p> <p>6.5. One final conference and dissemination event in Egypt, with a total attendance of at least 100 people from all relevant groups. Egypt is a strategic geographical location between Tunisia and Jordan. Where the partners are chosen to cover the eastern and western Mediterranean and the Red Sea.</p>		
<p>Activities List the key activities to be carried out (grouped in work packages) and in what sequence, in order to produce the expected results.</p> <p>Working Packages</p> <p>WP1 - Management, financial and evaluation framework.</p> <p>Task 1.1: Management scheme and operation including subcommittees.</p> <p>Task 1.2: Financial Management and costs reporting.</p> <p>Task 1.3: Coordination activities.</p> <p>Task 1.4: Project technical reporting, monitoring and control.</p> <p>Task 1.5: Quality Assurance and control.</p> <p>WP2 - Analysis, development and MSc. Recognition.</p> <p>Task 2.1: Survey about blue-economy-related curricula and</p>	<p>Inputs: resources Staff effort per participant per WP</p> <p>Overall the project, Travelling 10 travels and 4 subcontracting</p> <p>WP1 - Management, financial and evaluation framework.</p> <p>Staff: total 30, Participant (P_{1:9}), Number (n.)</p> <p>Months P1, n.3</p> <p>Months P2, n.3</p> <p>Months P3, n.4</p> <p>Months P4, n.3</p> <p>Months P5, n.1</p> <p>Months P6, n.5</p> <p>Months P7, n.5</p> <p>Months P8, n.3</p> <p>Months P9, n.3</p> <p>Travel: n. 5 flows (average n. 4 days each) Subcontracts:</p> <p>External Financial expert,</p>		



<p>assessment of these related existing curricula</p> <p>Task 2.2: Preparation of new curricula</p> <p>Task 2.3: Preparation of a new bunch of free elective curricula</p> <p>Task 2.4: Approval and accreditation request for the establishment of the master in sustainable blue economy</p> <p>WP3 - Sustainable Blue Economy in the local and global labour markets.</p> <p>Task 3.1: Database, information sharing strategy, as well as networking</p> <p>Task 3.2: Collaboration between academia and industry.</p> <p>Task 3.3: Workshops on the use of the blue economy in industries and the labour market</p> <p>WP4 - Go-live: program implementation.</p> <p>Task 4.1: New learning technique and innovative educational approach</p> <p>Task 4.2: Creation of novel instructional materials</p> <p>Task 4.3: Training for teaching staff from the partner countries</p>	<p>External Monitoring Expert,</p> <p>External Quality Expert,</p> <p>WP2- Analysis, development and MSc. Recognition.</p> <p>Staff: total 24, Participant (P_{1:9}), Number (n.)</p> <p>Months P1, n.2</p> <p>Months P2, n.3</p> <p>Months P3, n.1</p> <p>Months P4, n.4</p> <p>Months P5, n.2</p> <p>Months P6, n.5</p> <p>Months P7, n.5</p> <p>Months P8, n.1</p> <p>Months P9, n.1</p> <p>WP3 - Sustainable Blue Economy in the local and global labour markets.</p> <p>Staff: total 28, Participant (P_{1:9}), Number (n.)</p> <p>Months P1, n.2</p> <p>Months P2, n.3</p> <p>Months P3, n.4</p> <p>Months P4, n.3</p> <p>Months P5, n.2</p> <p>Months P6, n.5</p> <p>Months P7, n.5</p> <p>Months P8, n.2</p> <p>Months P9, n.2</p>		
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<p>T4.4: The first intake is starting and the first semester is running</p> <p>Task 4.5: Case studies are being created</p> <p>WP5 - Interconnected and international labs</p> <p>Task 5.1: Designing laboratories</p> <p>Task 5.2: Tendering procedure</p> <p>Task 5.3: Purchasing and setting up. The laboratories are up and running.</p> <p>Task 5.4: Convergence and collaborative research strategies and subjects.</p> <p>WP6 - Impact and Dissemination</p> <p>Task 6.1: Creating a Dissemination Plan</p> <p>Task 6.2: Creating a sustainability plan</p> <p>Task 6.3: Papers and digital promotional materials are examples of primary marketing materials.</p> <p>Task 6.4: Data can be imported into the European Education and Culture Executive Agency platform.</p> <p>Task 6.5: Inspirational blue economy lectures with academics and business</p> <p>Task 6.6: Social activities</p>	<p>WP4 - Go-live: program implementation.</p> <p>Staff: total 20, Participant (P_{1:9}), Number (n.)</p> <p>Months P1, n.2</p> <p>Months P2, n.1</p> <p>Months P3, n.2</p> <p>Months P4, n.2</p> <p>Months P5, n.1</p> <p>Months P6, n. 5</p> <p>Months P7, n. 5</p> <p>Months P8, n.1</p> <p>Months P9, n.1</p> <p>Travel: n. 3 flows (average n. 7 days each)</p> <p>WP5 - Interconnected and international labs</p> <p>Staff: total 19, Participant (P_{1:9}), Number (n.)</p> <p>Months P1, n.2</p> <p>Months P2, n.2</p> <p>Months P3, n.1</p> <p>Months P4, n.2</p> <p>Months P5, n.2</p> <p>Months P6, n. 4</p> <p>Months P7, n. 4</p> <p>Months P8, n.1</p> <p>Months P9, n.1</p> <p>Travel: n. 1 flows (average n. 7 days)</p>		
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<p>Task 6.7: Final conference and dissemination events</p>	<p>WP6 - Impact and Dissemination</p> <p>Staff: total 20, Participant (P1:9), Number (n.)</p> <p>Months P1, n.3</p> <p>Months P2, n.2</p> <p>Months P3, n.0</p> <p>Months P4, n.4</p> <p>Months P5, n.1</p> <p>Months P6, n. 4</p> <p>Months P7, n. 4</p> <p>Months P8, n.1</p> <p>Months P9, n.1</p> <p>Travel: n. 1 flows (average n. 4 days)</p> <p>Subcontracts: Conference</p>		
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2.1.3 Project teams, staff and experts

Project teams and staff <i>Describe the project teams and how they will work together to implement the project. List the staff included in the project budget (budget category A) by function/profile (e.g. project manager, senior expert/advisor/researcher, junior expert/advisor/researcher, trainers/teachers, technical personnel, administrative personnel etc. and describe shortly their tasks. If required by the call, provide CVs of all key actors. If required by the Call document/Programme Guide.</i>			
Name and function	Organisation	Role/tasks	Professional profile and expertise
<p>Rachid Amara Professor Male</p>	<p>University of the Littoral Opal Coast (ULCO) - France</p>	<p>Project Investigator, Will contribute in All WPs, mainly WP1</p>	<p>Professor in marine ecology and fisheries sciences. He studies fish ecology and consequences of anthropogenic pressure on marine ecosystems functioning and more specifically on essential fish habitats in estuarine and coastal areas. Prof. Amara served as director of the various Master's specialties in marine sciences. He was the Director of one of the four centres for research at ULCO: Centre for Research in Natural Environments (MREN) (2006-2015). Since 2020, he is the director of the Institute of Marine and coastal Sciences. He is actually the Vice President for International Affairs. He has supervised 24 PhD students (8 international co-supervisions). He is the co-author of about 125 scientific articles (h-index 33 web of sciences): ORCID ID : 0000-0002-7183-1333</p>



			<p>He has managed and participated in a number of national and international research projects. In recent years, has been the leader of several major projects for the university (Graduate school IFSEA = 8.1 million euros; CPER IDEAL = 6.5 million euros ; all of which have been successful and which contribute to the influence of the "sea and coast" topic of the university. Prof. Amara sits on numerous regional, national and international boards and scientific councils.</p> <p>Mahfouz, C., Sharif, J., Kazour,M., El Rahman, H. A., Myriam, L., Myriam, G.,R. Amara & Milad, F. (2023). First assessment of microplastics in offshore sediments along the Lebanese coast, South-Eastern Mediterranean. <i>Marine Pollution Bulletin</i>, 186, 114422. doi.org/10.1016/j.marpolbul.2022.114422</p> <p>Laurent, J., Lavergne, E., Couteau, J., Le Floch, S., Ouddane, B., Cachot, J., R. Amara & Laroche, J. (2022). Impacts of chemical stress, season, and climate change on the flounder population of the highly anthropised Seine estuary (France). <i>Environmental Science and Pollution Research</i>, 1-19. doi.org/10.1007/s11356-022-20000-y</p> <p>Boubekri, I., Mazurek, H., Djebar, A. B., & Amara, R. (2022). Social-ecological dimensions of Marine Protected Areas and coastal fishing: How fishermen's local ecological knowledge can inform fisheries management at the future "Taza" MPA (Algeria, SW Mediterranean). <i>Ocean & Coastal Management</i>, 221, 106121. doi.org/10.1016/j.ocecoaman.2022.106121</p> <p>Ghohn M., Chekri R., Mahfouz C., Gaby, K., Guerrin T; Jitaru P & R, Amara (2020). Seasonal and spatial variability of trace elements in livers and muscles of three fish species from the Eastern Mediterranean. <i>Environmental Science and Pollution Research</i>: 27, 12428–12438. https://doi.org/10.1007/s11356-020-07794-5</p> <p>Boubekril, I., Amara, R., Djebar, A.B., Mazurek, H. (2021). Baseline data for Marine Protected Areas planning and fisheries monitoring: Potential conflicts between recreational IUU and commercial fisheries in the proposed "Taza" MPA (Algeria, SW Mediterranean). <i>Ocean and Coastal Management</i>. 201:105425. doi.org/10.1016/j.ocecoaman.2020.105425</p>
<p>Frida Lasram Professor Female</p>	<p>University of the Littoral Opal Coast (ULCO) - France</p>	<p>Will contribute in All WPs, mainly WP2</p>	<p>Prof. Lasram is the director of the IFSEA Graduate school and Head of the Master 'Marine sciences'.</p> <p>Pecquet, J., Mouchet, M., Campagne, S., Raybaud, V., Baulaz, Y., Gevaert, F. & Ben Rais Lasram, F. (2022) Combining Ecological Niche Models and Ecosystem Services indicators to assess impacts of climate change on kelp. <i>Ecosystems and People</i>, 18(1), 358-377. doi.org/10.1080/26395916.2022.2080766.</p> <p>Le Marchand, M., Ben Rais Lasram, F., Araigous, E., Saint-Béat, B., Lassalle, G., Michelet, N., Serre, S., Safi, G., Lejart, M., Niquil, N. & Le Loc'h, F. (2022) Combined impacts of climate change and non-indigenous species arrivals on Bay of Biscay trophic network structure and functioning. <i>Journal of Marine Systems</i>, 228, 103704. doi.org/10.1016/j.jmarsys.2022.103704.</p> <p>Drira, S., Ben Rais Lasram, F., Hattab, T., Shin, Y. J., Ben</p>



			<p>Rejeb Jenhani, A., & Guilhaumon, F. (2021). Can We Avoid Tacit Trade-Offs between Flexibility and Efficiency in Systematic Conservation Planning? The Mediterranean Sea as a Case Study. <i>Diversity</i>, 14(1), 9.</p> <p>Ben Rais Lasram, F., Hattab, T., Nogues, Q., Beaugrand, G., Dauvin, J. C., Halouani, G., Le Loc'h, F., Niquil N., & Leroy, B. (2020) An open-source framework to model present and future marine species distributions at local scale. <i>Ecological Informatics</i>, 59, 101130, doi.org/10.1016/j.ecoinf.2020.101130</p> <p>Halouani, G., Le Loc'h, F., Shin, Y.J, Velez, L., Hattab, T., Romdhane, M.S. & Ben Rais Lasram F. (2019) An end-to-end model to evaluate the sensitivity of ecosystem indicators to track fishing impacts. <i>Ecological Indicators</i>, 98, 121-130. doi.org/10.1016/j.ecolind.2018.10.061</p>
<p>Hubert Loisel Professor Male</p>	<p>University of the Littoral Opal Coast (ULCO) - France</p>	<p>Will contribute in All WPs, mainly WP1</p>	<p>Director of the Laboratory of Oceanography and Geosciences (LOG UMR 8187). His scientific interests include ocean color remote sensing from high and medium spatial resolution sensors, ocean carbon cycle, and radiative transfer in open and coastal waters.</p> <p>Barbieux, M., Uitz, J., Mignot, A., Roesler, C., Claustre, H., Gentili, B., ... Loisel & Bricaud, A. (2022). Biological production in two contrasted regions of the Mediterranean Sea during the oligotrophic period: an estimate based on the diel cycle of optical properties measured by BioGeoChemical-Argo profiling floats. <i>Biogeosciences</i>, 19(4), 1165-1194.</p> <p>Balasubramanian, S. V., Pahlevan, N., Smith, B., Binding, C., Schalles, J., Loisel, H., ... & Boss, E. (2020). Robust algorithm for estimating total suspended solids (TSS) in inland and nearshore coastal waters. <i>Remote Sensing of Environment</i>, 246, 111768.</p> <p>Dierssen, H., Bracher, A., Brando, V., Loisel, H., & Ruddick, K. (2020). Data needs for hyperspectral detection of algal diversity across the globe. <i>Oceanography</i>, 33(1), 74-79.</p>
<p>Moez Kilani Professor Male</p>	<p>University of the Littoral Opal Coast (ULCO) - France</p>	<p>Will contribute in All WPs, mainly WP2</p>	<p>Head of the Master 'Port and Maritime Management' and 'Supply chains and modeling'. He works on transport policies and regional development, including topics related to energy transition and sustainable growth. His research combines formal microeconomic analysis and multi-agent simulation.</p> <p>Moez Kilani, Ngagne Diop and Daniel De Wolf. A multimodal transport model to evaluate transport policies in the North of France. <i>Sustainability</i>, vol. 14(3), p. 15–35, 2022.</p>
<p>Christophe Gibout Professor Male</p>	<p>University of the Littoral Opal Coast (ULCO) - France</p>	<p>Will contribute in All WPs, mainly WP4</p>	<p>Head of the Master 'Urban and coastal planning policies'. Director of the Research Pole Humanities and integrated territories.</p> <p>Frère, S., Le Blanc, A., Gibout, C., & Hellequin, A. P. (2017). Management of industrial risks: legislative developments and local adaptations in Dunkirk. <i>Environnement, Risques & Santé</i>, 16(3), 275-283.</p>
<p>Raluca Mogos Descotes Professor</p>	<p>University of the Littoral Opal Coast (ULCO) - France</p>	<p>Will contribute in All WPs, mainly WP4</p>	<p>Professor of International Marketing at ULCO Marketing. She has been involved in several regional research projects and she's part of the Research Council of the Think Tank 'Fabrique de l'Exportation'. Her main fields of research are export knowledge management, export performance, exporting SMEs' institutional profile, foreign entry modes and</p>



Female			<p>collaborative product innovation in export firms.</p> <p>MOGOS DESCOTES Raluca, WALLISER Björn, HOLZMÜLLER Hartmut & Xiaoling GUO (2011), Complement or alternative to culture? Capturing the institutional home country conditions for exporting SMEs, <i>Journal of Business Research</i>, 64, 12, 1303-1310.</p>
<p>Maria Giovanna Parisi</p> <p>Professor</p> <p>Female</p>	<p>Universidad de estudios de Palermo (UNIPA) – Italy</p>	<p>Will contribute in All WPs, mainly WP1,3,4</p>	<p>Professor in Zoology and Rectoral Delegate for Internationalization in research and educational activities and relations with APRE (Agency for the Promotion of European Research) and member for the science area of the Scientific Council of the Center for Advanced Studies of the University of Palermo. She studies immunological parameter of cell-mediated and humoral immune response in fish and invertebrate filter feeders of marine coastal areas in attempt to identify biomarkers and environmental stress in systemic bio-monitoring programs.</p> <p>Particularly, focus is the investigation of their modulations, or adaptive functional responses to anthropogenic and environmental stress factors. She also studied modulation of immunological activity towards inflammatory and pathogenic states in fish. She is Author of 49 ISI papers published in international journals in the field of Agricultural and Biological Sciences, immunology and Environmental Science. She can collaborate in education and research systems and develop training courses Actually, she is Secretary of the Italian Society of Developmental and Comparative Immunology.</p> <p>Parisi, M.G., Baranzini, N., Dara, M., ...Vizioli, J., Cammarata, M. AIF-1 and RNASET2 are involved in the inflammatory response in the Mediterranean mussel <i>Mytilus galloprovincialis</i> following <i>Vibrio</i> infection. <i>Fish and Shellfish Immunology</i> 2022, 127, pp. 109–118. https://doi.org/https://doi.org/10.3390/md13085276</p> <p>Parisi, M.G., Giacoletti, A., Mandaglio, C., Cammarata, M., Sarà, G. The entangled multi-level responses of <i>Mytilus galloprovincialis</i> (Lamarck, 1819) to environmental stressors as detected by an integrated approach. <i>Marine Environmental Research</i>, 2021, 168, 105292. https://doi.org/10.1016/j.marenvres.2021.105292</p> <p>Parisi MG, Maisano M, Cappello T, Oliva S, Mauceri A, Toubiana M, Cammarata M. (2019) Responses of marine mussel <i>Mytilus galloprovincialis</i> (Bivalvia: Mytilidae) after infection with the pathogen <i>Vibrio splendidus</i>. <i>Comparative Biochemistry and Physiology Part - C: Toxicology and Pharmacology</i>, 221, pp.1-9. https://doi.org/10.1016/j.cbpc.2019.03.005</p> <p>Parisi MG, Cammarata I, Cammarata M, Censi V. (2017). Rare earths, zirconium and hafnium distribution in coastal areas: The example of <i>Sabella spallanzanii</i> (Gmelin, 1791) <i>Chemosphere</i> 185, 268-276. https://doi.org/10.1016/j.chemosphere.2017.07.023</p> <p>Stabili L, Schirosi R, Parisi MG, Piraino S, Cammarata M. (2015). The mucus of <i>Actinia equina</i> (Anthozoa, Cnidaria): An unexplored resource for potential applicative purposes. <i>Marine Drugs</i>, 13, 8 5276-5296. https://doi.org/10.3390/md13085276</p>



<p>Matteo Cammarata Professor Male</p>	<p>Universidad de estudios de Palermo (UNIPA) – Italy</p>	<p>Will contribute in All WPs, mainly WP1,3,4</p>	<p>Professor in Zoology and deputy department Director. Topic on comparative immunology, welfare, acute stress effect and physiology in aquaculture. Specifically, he is interested in fish immunity and aquaculture, macrobenthic invertebrate immunity and immunomodulation indicators.</p> <p>Disciplinary expert for study courses evaluation of Italian agency of education. Delegate of Department for the study courses and education and more than 10 years as study courses president.</p> <p>Actually, is President of the Italian Society of Developmental and Comparative Immunology He has coordinate and collaborate in several national and international projects and in his career, has published more than 140 ISI impacted papers with several international co-authors Role: he will involve in fish biology and fisheries management module. MC can contribute on the structural and quality organization of master courses</p> <p>Dara, M., Parisi, M.G., La Corte, C., ...Piazzese, D., Cammarata, M.Sabella spallanzanii mucus bacterial agglutinating activity after arsenic exposure. The equilibrium between predation safety and immune response stability Marine Pollution Bulletin 2022, 181, 113833</p> <p>Carbonara, P., Alfonso, S., Dioguardi, M., ...Lembo, G., Cammarata, M.Calibrating accelerometer data, as a promising tool for health and welfare monitoring in aquaculture: Case study in European sea bass (Dicentrarchus labrax) in conventional or organic aquaculture. Aquaculture Reports, 2021, 21, 100817</p>
<p>Maria Concetta Messina Professor Female</p>	<p>Universidad de estudios de Palermo (UNIPA) – Italy</p>	<p>Will contribute in All WPs, mainly WP1,3,4</p>	<p>PhD in “Aquaculture and quality of fish”; Associate Professor in Animal Production (Fishery and Aquaculture) at University of Palermo, Dept. Earth and marine Sciences (DISTEM)-Invited professor in charge for the course “Intelligent mariculture” within the International master degree on Marine Biotechnology, at Université de Brest (France), Institut universitaire européen de la mer (IUEM) (from AA 2018-19 to present AA). - Nominees: President of the European Society for Marine Biotechnology 2022-2024. - Board Member of the European federation of Biotechnology, Environmental division. - Component of the Scientific Board of Italian Association of the study of the microalgae (AISAM) - Component of the Editorial Board of the Journal Marine Biotechnology and Aquaculture International (Springer) - 2008-09 Component of EFSA (European Food Safety Authority), as invited expert, of the panel “Animal health and welfare” AHAW to define the European guidelines for stunning and killing farmed bluefin tuna. - Component of the Osservatorio della Pesca del Mediterraneo "Giovanni Tumbiolo" within the District of fishery and blue growth.</p> <p>Coordinator of more than 20 research projects, as principal investigator or working package leader, in the domain of the blue growth.</p> <p>Bonsignore, M.; Messina, C.; Bellante, A.; Manuguerra, S.; Arena, R.; Santulli, A.; Maricchiolo, G.; Del Core, M.; Sprovieri, M. Chemical and biochemical responses to sub-lethal doses of mercury and cadmium in gilthead seabream (Sparus aurata). Chemosphere 2022, 307, 135822. https://doi.org/10.1016/j.chemosphere.2022.135822. 8,943</p>



			<p>Messina, C.M.; Arena, R.; Manuguerra, S.; La Barbera, L.; Curcuraci, E.; Renda, G.; Santulli, A. Valorization of Side Stream Products from Sea Cage Fattened Bluefin Tuna (<i>Thunnus thynnus</i>): Production and In Vitro Bioactivity Evaluation of Enriched ω-3 Polyunsaturated Fatty Acids. <i>Mar. Drugs</i> 2022, 20. https://doi.org/10.3390/md20050309579</p> <p>Arena, R.; de Medeiros, A.C.L.; Secci, G.; Mancini, S.; Manuguerra, S.; Bovera, F.; Santulli, A.; Parisi, G.; Messina, C.M.; Piccolo, G. Effects of Dietary Supplementation with Honeybee Pollen and Its Supercritical Fluid Extract on Immune Response and Fillet's Quality of Farmed Gilthead Seabream (<i>Sparus aurata</i>). <i>Animals</i> 2022, 12, https://doi.org/10.3390/ani12060675</p> <p>Messina CM, Arena R, Ficano G, La Barbera L, Morghese M, Santulli A. 2021. Combination of Freezing, Low Sodium Brine, and Cold Smoking on the Quality and Shelf-Life of Sea Bass (<i>Dicentrarchus labrax</i> L.) Fillets as a Strategy to Innovate the Market of Aquaculture Products. <i>Animals</i>; 11:185 1–19. https://www.mdpi.com/2076-2615/11/1/185</p>
<p>Mariano Dara Researcher Male</p>	<p>Universidad de estudios de Palermo (UNIPA) – Italy</p>	<p>Will contribute in All WPs, mainly WP1,3,4</p>	<p>Researcher in Zoology at the Department of Earth and Sea Sciences of University of Palermo. His research field is on comparative immunology, fish welfare, acute stress effect and physiology approach for fish assessment with attention to aquaculture aspects.</p> <p>He is also interested in innate immunity of invertebrates with focus on macro benthonic filter feeders and their response to different natural or anthropogenic stress, through investigation of immunological parameter of cell-mediated and humoral immune response.</p> <p>He is author of 12 ISI impacted papers in the field of Zoology, Agricultural and Biological Sciences, Immunology and Environmental Science.</p> <ol style="list-style-type: none"> Dara, M.; Dioguardi, M.; Vazzana, M.; Vazzana, I.; Accardi, D.; Carbonara, P.; Alfonso, S.; Cammarata, M. Effects of Social Hierarchy Establishment on Stress Response and Cell Phagocytosis in Gilt-Head Sea Bream (<i>Sparus aurata</i>). <i>Fishes</i> 2022, 7, 75, doi:10.3390/fishes7020075. Alfonso, S.; Zupa, W.; Manfrin, A.; Fiocchi, E.; Dioguardi, M.; Dara, M.; Lembo, G.; Carbonara, P.; Cammarata, M.; Cammarata, M. Surgical implantation of electronic tags does not induce medium-term effect: Insights from growth and stress physiological profile in two marine fish species. <i>Animal Biotelemetry</i> 2020, 8, 4–9, doi:10.1186/s40317-020-00208-w. Falco, F.; Bono, G.; Cammarata, M.; Cavalca, J.; Vazzana, I.; Dara, M.; Scannella, D.; Guicciardi, S.; Faggio, C.; Ragonese, S. Stress related blood values in <i>Scyliorhinus canicula</i> as live-indicators of physiological status after bottom trawling capture activity. <i>Comparative Biochemistry and Physiology, Part B</i> 2023, 263, 110802, doi:10.1016/j.cbpb.2022.110802. Parisi, M.G.; Grimaldi, A.; Baranzini, N.; La Corte, C.; Dara, M.; Parrinello, D.; Cammarata, M. Mesoglea extracellular matrix reorganization during regenerative process in anemone <i>viridis</i> (Forskål, 1775). <i>International Journal of Molecular Sciences</i> 2021, 22, doi:10.3390/ijms22115971.



<p>Claudia La Corte Researcher Female</p>	<p>Universidad de estudios de Palermo (UNIPA) – Italy</p>	<p>Will contribute in All WPs, mainly WP1,3,4</p>	<p>Ph. D. student at the Department of Earth and Sea Sciences of University of Palermo (SSD: BIO/05). She is interested in immunity of fish and macroinvertebrates, in particular on cnidarian species and their responses to several kind of stress affecting the organism immune defences. She is able to conduct investigations at different levels of biological observations from morphology to molecular and genetic analyses. She is author of 7 ISI impacted papers in the field of Zoology, Agricultural and Biological Sciences, Immunology and Environmental Science.</p> <p>Parisi, M.G.; Grimaldi, A.; Baranzini, N.; La Corte, C.; Dara, M.; Parrinello, D.; Cammarata, M. Mesoglea Extracellular Matrix Reorganization during Regenerative Process in <i>Anemonia viridis</i> (Forskål, 1775). <i>Int. J. Mol. Sci.</i> 2021, 22, 5971. https://doi.org/10.3390/ijms22115971</p> <p>2. Parisi, M.G., Pirrera, J., La Corte, C. et al. Effects of organic mercury on <i>Mytilus galloprovincialis</i> hemocyte function and morphology. <i>J Comp Physiol B</i> 191, 143–158 (2021). https://doi.org/10.1007/s00360-020-01306-0</p> <p>Cammarata, M., Benenati, G., Dara, M., Parisi, M.G., Piazzese, D., Falco, F.D., & Stabili, L. (2019). <i>Sabella spallanzanii</i> mucus contain a galactose-binding lectin able to agglutinate bacteria. Purification and characterization. <i>ISJ-Invertebrate Survival Journal</i>, 16, 15-24. https://doi.org/10.25431/1824-307X</p> <p>4. Dara, M., Giulianini, P. G., Manfrin, C., Parisi, M. G., Parrinello, D., La Corte, C., ... & Cammarata, M. (2021). F-type lectin from serum of the Antarctic teleost fish <i>Trematomus bernacchii</i> (Boulenger, 1902): Purification, structural characterization, and bacterial agglutinating activity. <i>Comparative Biochemistry and Physiology Part B: Biochemistry and Molecular Biology</i>, 256, 110633. https://doi.org/10.1016/j.cbpb.2021.110633</p>
<p>Maria Del Mar Bosch Belmar Assistant Professor Female</p>	<p>Universidad de estudios de Palermo (UNIPA) – Italy</p>	<p>Will contribute in All WPs, mainly WP1,3,4</p>	<p>PhD Assistant Professor at Laboratory of Ecology. The research focuses on the study of marine organisms responses to climatic and anthropogenic disturbance through the use of functional trait approaches. Specifically, how temperature changes drive species interactions and their distribution across spatial scales, the functional composition of the community and its influence on ecosystem functioning.</p> <p>- Bosch-Belmar M., Piraino S., Sarà G. Predictive Metabolic Suitability Maps for the Thermophilic Invasive Hydroid <i>Pennaria disticha</i> Under Future Warming Mediterranean Sea Scenarios. 2022. <i>Front. Mar. Sci.</i> 9:810555.</p> <p>- Bosch-Belmar M., Giacoletti A., Giommi C., Milisenda G., Sarà G. 2022. Short-term exposure to concurrent biotic and abiotic stressors may impair farmed molluscs performance. <i>Marine Pollution Bulletin</i> 179: 113724.</p> <p>-Bosch-Belmar M., Giommi C., Milisenda G., Abbruzzo A., Sarà G. (2021) Integrating functional traits into correlative species distribution models to investigate the vulnerability of marine human activities to climate change. <i>Science of the Total Environment</i> 799: 149351.</p> <p>-Sarà G., Milisenda G., Mangano M.C., Bosch-Belmar M. (2021) The buffer effect of canopy-forming algae on</p>



			vermetid reefs' functioning: A multiple stressor case study. Marine Pollution Bulletin 171: 112713.
Valentina Catania Researcher Female	Universidad de estudios de Palermo (UNIPA) – Italy	Will contribute in All WPs, mainly WP1,3,4	<p>Researcher in General Microbiology at University of Palermo. The scientific activity is focused on various issues relating to environmental microbiology, microbial ecology, and microbial biotechnologies aimed at restoring polluted environments and matrices. Most of research activities focus on the taxonomic, catabolic and metabolic characterization of cultivable and non-cultivable microbial communities, study and development of innovative systems and methodologies for bioremediation of environments contaminated; analysis of bioremediation processes applied to polluted marine and terrestrial ecosystems, assessment of antimicrobial activity of new biologically active molecules from marine sources</p> <p>Catania V, Cappello S, Di Giorgi V, Santisi S, Di Maria R, Mazzola A, Vizzini S, Quatrini P. Microbial communities of polluted sub-surface marine sediments. Mar Pollut Bull. 2018 Jun;131(Pt A):396-406. doi: https://doi.org/10.1016/j.marpolbul.2018.04.015.</p> <p>Catania, Valentina & Da Silveira Bueno, Rafael & Alduina, R. & Grilli, Eleonora & La Mantia, Tommaso & Castaldi, Simona & Quatrini, Paola. (2022). Soil microbial biomass and bacterial diversity in southern European regions vulnerable to desertification. Ecological Indicators. 145. 109725. 10.1016/j.ecolind.2022.109725.</p> <p>Punginelli, D.; Catania, V.; Vazzana, M.; Mauro, M.; Spinello, A.; Barone, G.; Barberi, G.; Fiorica, C.; Vitale, M.; Cunsolo, V.; et al. A novel Peptide with Antifungal Activity from Red Swamp Crayfish <i>Procambarus clarkii</i>. Antibiotics 2022, 11, 1792. https://doi.org/10.3390/antibiotics11121792</p>
Ourania Tzoraki Associate Professor Female	University of the Aegean (UAEGEAN) - Greece	Will contribute in All WPs, mainly WP1,3,4	<p>Associate Professor in Management of River Basin and Coastal Zone of the Department of Marine Sciences (DMR) at the University of the Aegean. She is coordinating or involved as main researcher in several national and international research projects related to environmental modelling, coastal mapping and monitoring and water resources management (i.e. SMIRES, ERMIS-F, ENVIFRIENDLY, MIRAGE, tempQsim). She is author of more than 150 publications in journals, books and conference proceedings books (Google Scholar citations: 709 / h-index: 12). She has research/ teaching and supervising experience at the Leibniz Universität Hannover (DE), Technical University of Crete (GR) (11 yrs), Cyprus University of Technology (CY) (3 yrs), University of Parthenope (IT), Concepcion University (CH) and University of the Aegean (GR). Her research interests include: (a) Hydrology and biogeochemistry of Intermittent and Ephemeral Streams (IRES) at river basin scale, i.e. flash floods, nutrient and heavy metal pollution and Climate Change impact; (b) Operational hydrology, i.e. early flood warning system development for IRES, Flow Image Velocimetry using UAVs; (c) Coastal Zone Management (Artificial Aquifer Recharge with treated wastewater, beaches resilience, marinas and ports environmental management);</p> <p>ORCID number https://orcid.org/0000-0001-8862-849X</p>

<p>Nikolaos Soulakellis Professor Male</p>	<p>University of the Aegean (UAEGEAN) - Greece</p>	<p>Will contribute in All WPs, mainly WP1,3,4</p>	<p>Professor of Thematic Cartography and Geoinformation at the Geography Department of the University of the Aegean, Greece since 1996. In that Department he is teaching courses in thematic cartography and G.I.S. at the undergraduate and postgraduate level. He acted as the Head of the Department from 2008 until 2010. His research interests are focusing on data collection, data processing and fusion for cartographic purposes especially in Aegean island regions. He is also the director of the Cartography and Geoinformation Lab of the Department of Geography. From 2010 until 2014 he served as Vice Rector of Academic Affairs and Student Welfare at the University of the Aegean. Dr. Soulakellis has led on many projects funded mainly by European Union. His research resulted in (15 EU/ national/ international projects, 100 scientific conferences, 200 theses and dissertations, 100 collaborating researchers and institutions) more than 100 publications including books (Google Scholar citations: 1,246 / h-index: 18).</p>
<p>Polina Tourlioti Researcher Female</p>	<p>University of the Aegean (UAEGEAN) - Greece</p>	<p>Will contribute in All WPs, mainly WP1,3,4</p>	<p>Social Anthropologist and she holds a PhD in Tourism Impact Studies. She has been working as administrative staff (Senates Secretary- University of the Aegean) for 15 years. Since 2015 she is working as a Laboratory and Teaching Staff at the Department of Marine Studies at the University of the Aegean (Mytilene) and her expertise is related to coastal zone management. She will contribute to the dissemination activities of the project</p>
<p>Alexandra Tsoulibrk Researcher Female</p>	<p>University of the Aegean (UAEGEAN) - Greece</p>	<p>Will contribute in All WPs, mainly WP1,3,4</p>	<p>PhD student in coastal zone management. Alexandra is developing a WEBGIS platform to visualize the outcomes of scenarios to mitigate the impact of climate change. She is involved in the project in the monitoring of the heritages concerning vulnerability and socio-economics scenarios.</p>
<p>Kareem Tonbol Associate Professor Male</p>	<p>Arab Academy for Science, Technology and Maritime Transport (AASTMT) - Egypt</p>	<p>Will contribute in WP3,4,5,6</p>	<p>Dr. Tonbol is an Associate Professor of Physical Oceanography and Climatology at the Arab Academy for Science, Technology and Maritime Transport (AASTMT) - College of Maritime Transport & Technology (CMTT). He currently acts as the Vice Dean for Postgraduate Studies and Scientific Research, As the vice dean, he is responsible for the management of all research programs and activities at CMTT such as post-graduate studies, and utilizes the fields of scientific research for serving society.</p> <p>Dr. Kareem Tonbol is a physical oceanographer with extensive research experience and several publications in the fields of climate change, sea-level rise, air temperature trends, meteorological and oceanographic data analysis. He obtained his Ph.D. in 2008 in Physical Oceanography from the Faculty of Science, Alexandria University, Alexandria, Egypt. Dr. Tonbol is a coordinator of more than 12 research and capacity-building projects funded by national, regional, and international funding bodies. He has attended many trainings, workshops and conducted several mobilities for teaching and training in the EU Universities. Dr. Tonbol is currently directing and supervising Ph.D. and MSc students. He has also reviewed manuscripts submitted for publication to peer-reviewed scientific journals. Dr. Tonbol has also supervised the establishment of several facilities at CMTT including its Physics Lab, Automatic Weather Observing System, Environmental Monitoring & Climate Change Laboratory, and Water Quality Laboratory. In his current capacity, Dr. Tonbol also represents the AASTMT in the meetings of the Permanent Arab Committee on Meteorology & its Sub-committees in the League of Arab States (LAS) &</p>

			<p>in the meetings of the World Meteorology Organization (WMO).</p> <p>El-Geziry, T.M., Elbessa, M. & Tonbol, K.M. (2023). On the Relationships between Sea Surface Temperature and Atmospheric Conditions over the Southern Levantine Basin, Egyptian Journal of Aquatic Biology and Fisheries, Accepted.</p> <p>Tonbol, K.M., Khedr, A., Wahba, M., Helmy, M., Elbessa, M. (2023). Evaluating the Accuracy of ERA5 Wave Reanalysis with In Situ Data on the Egyptian Mediterranean Coasts, Egyptian Journal of Aquatic Biology and Fisheries, 27(1), pp. 85-107. doi: 10.21608/EJABF.2023.282647.</p> <p>Bawadekji, A.; Tonbol, K.; Ghazouani, N.; Becheikh, N.; Shaltout, M. (2022) Statistical Downscaling of Global Climate Projections over Tabuk city, Northwest of Saudi Arabia. Arab J Geosci 15, 1269 (2022). https://doi.org/10.1007/s12517-022-10492-w.</p> <p>Elbessa, M.; Mesbah, S.M.; Tonbol, K.; Shaltout, M. (2022). Modeling the future scenarios for surface temperature and wind regime over the South-Eastern Levantine Basin, Egypt, Egyptian Journal of Aquatic Biology and Fisheries, 26(3), pp. 541-564. doi: 10.21608/ejabf.2022.244114.</p> <p>Bawadekji, A.; Tonbol, K.; Ghazouani, N.; Becheikh, N.; Shaltout, M. (2022). Recent atmospheric changes and future projections along the Saudi Arabian Red Sea Coast. Sci Rep 12, 160 (2022). https://doi.org/10.1038/s41598-021-04200-z</p>
<p>Yasser Gaber Dessouky Professor Male</p>	<p>Arab Academy for Science, Technology and Maritime Transport (AASTMT) - Egypt</p>	<p>Will contribute in WP3,4,5,6</p>	<p>Prof. Dr. Yasser Gaber Dessouky has graduated from Alexandria University in 1991. He got his PhD from Heriot Watt University, UK in 1998. He is a professor in the Department of Electrical and Control Engineering of the Arab Academy for Science, Technology and Maritime Transport (AASTMT) since 2006. Currently, he is the Dean of Scientific Research and Innovation in the AASTMT. He is a Renewable Energy Expert in the ESCWA of the UN. He is a member of the national steering committee of the Egyptian Science, Technology, and Innovation Observatory (ESTIO). Professor Dessouky is the Editor in Chief of the Journal of Renewable Energy and Sustainable Development and an Editorial board member for many Journals and a consultant with the many Industrial Companies. He is leading Technology, Innovation and Commercialization Office (TICO), and the AASTMT PI of EU funded projects such as: EU ErAfrica project 2015-18; two EU TEMPUS program projects (HiT4Med and JAMILA) 2013-16; an Erasmus plus CBHE project MEDSol 2016-2019, three Erasmus plus CBHE projects WESET, AdapTm and HEBA 2017-2020. He is also the AASTMT PI of the (Innovation Cluster for Deepen Local Manufacturing Electronic Industry) Egypt Knowledge and Technology Alliances 2016-2018. He is a peer reviewer in many transactions, periodicals, and conferences, and has a patent from the Patent Office in UK. He supervised many PhD and MSc thesis and has published more than 60 research papers.</p>
<p>Mohamed Youssef Omar Associate Professor Male</p>	<p>Arab Academy for Science, Technology and Maritime Transport</p>	<p>Will contribute in WP3,4,5,6</p>	<p>Dr. Mohamed Youssef Omar is currently the Head of Projects Management Department - Scientific Research Deanery at the Arab Academy for Science, Technology and Maritime Transport (AASTMT).</p> <p>Dr. Omar has obtained the BSc from the Faculty of Science, Chemistry Department 1992 with very good with honor, in 1999 he has got a scholarship from the Environmental Research Institute in the University of Connecticut at USA.</p>



	(AASTMT) - Egypt		<p>Dr. Omar has achieved the MSc from Environmental Protection Department at AASTMT 2004, finally PhD from Environmental Sciences Department at Columbus University 2010.</p> <p>He has got many certified professional training courses in various fields as Instrumental Analysis, Oil Identification Technology, Crisis Management, Contingency planning, GIS, Oil Spill Risk Assessment, Simulation and Modeling.</p> <p>Dr. Omar teaches Introduction to Environmental sciences, Ecological Risk Assessment and Environmental Modeling at the Environmental Sciences Department, Faculty of Science, Alexandria University, and He teaches Applied Chemistry (principles of corrosion), Instrumental Analysis, Oil Spill Response, Environmental Crisis Management, Geographical information systems (GIS) at the College of Engineering at AASTMT.</p> <p>Dr. Omar is a formal consultant to the Egyptian Environmental Affairs Agency (EEAA) in the field of Environmental Risk Assessment and Management. He is a permanent member for the Egyptian National Oil Spill Contingency Plan committee at the EEAA.</p> <p>Dr. Omar contributes to many national and international scientific research projects as followings: Dr. Omar has multiple scientific activities in the supervision and judgement of many graduation projects, master's degrees, and PhD degrees as well. He has published scientific papers in different international journals and conferences.</p>
<p>Mohamed El Bawab</p> <p>Associate Professor</p> <p>Male</p>	<p>Arab Academy for Science, Technology and Maritime Transport (AASTMT) - Egypt</p>	<p>Will contribute in WP3,4,5,6</p>	<p>Marine chief Eng. Mohamed Elbawab, BSc in Marine Engineering 2002 (AASTMT). In October 2012, he left his seafaring job as a senior engineer onboard VLCCs to enter academic life and became a member of the AASTMT teaching staff in end of 2012 after 10 years of practical experience onboard Tankers. In 2017 he had a UN fellowship to award his Master of Science degree in the Maritime Affairs (Maritime Energy Management (MEM)) specialization at the World Maritime University (WMU) Malmo, Sweden. He was awarded this degree in Nov.2018.</p> <p>Moreover, he got a Postgraduate Diploma in Marine Engineering (AASTMT) in Oct.2019, then he joined the PhD. Program at the Maritime Postgraduate Studies Institute in the AASTMT working on maritime energy management (port and onboard ships energy).</p> <p>Currently, Mohamed Works as a Senior lecturer at the Sea Training Institute (STI), Arab Academy for Science, Technology and Maritime Transport (AASTMT). Moreover, Mohamed is the Marine engineering course coordinator at STI.</p> <p>Mohamed is an active researcher specializing in Maritime Energy Management, Port /Onboard ships energy management, Climate change and sustainability. In addition to several research projects internationally and locally, he is an active member of its teams regarding port-city emission interaction and emission reduction from ships.</p> <p>Also, he is the officer of SDG 14 in the AASTMT SDGs workforce committee. Finally, he is a board member of the Institute of Marine Engineering, Science & Technology IMarEST colleagues association Egypt branch. Also, he is a board member of the marine engineers and ship constructors' association.</p>



<p>Nada Salama Sayedelahl</p> <p>Researcher Female</p>	<p>Arab Academy for Science, Technology and Maritime Transport (AASTMT) - Egypt</p>	<p>Will contribute in WP3,4,5,6</p>	<p>Nada is a young professional and PhD student in ocean science. Nada earned her BSc. in Physical Oceanography from Alexandria University (AU) in Egypt in 2015. She also received her MSc in Physical Oceanography from AU in 2021. She has received a variety of international training since then, including: summer school in sustainable blue economy at the Situto Nazionale di Oceanografia e di Geofisica Sperimentale (OGS) and L'Università degli Studi di Trieste, Italy; summer school in the conservation of estuaries at Helmholtz Zetrum Hereon, Germany; international training about ocean governance at the "International Ocean Institute" (IOI) and Malta University, Malta; and a fellowship to study blue economy for 6 months at OGS, Italy.</p> <p>Nada has been working as a part-time teaching assistant for more than two years at the oceanography department faculty of science at Alexandria University. Nada is a very energetic researcher who specialises in the use of advanced techniques such as hydrodynamical models to study coastal areas as well as climate models. She is very passionate about combining her knowledge of ocean science and climate issues with her other interests to contribute to achieving a sustainable blue economy.</p> <p>Nada M. Salama, Moheb M. Iskander, Ahmed A. El- Gindy, Abdallah M. Nafeih, and Hossam El- Din M. Moghazy(2023). Hydrodynamic simulation of rip currents along Al- Nakheel beach, Alexandria, Egypt: Case Study. Journal of Marine Science and Application, Accepted.</p> <p>Khedr, A., Salama, N., & Helmy, M. (2022). Tidal Datum Levels Realization based on observed Sea level data analysis in Port Said, Egypt. AIN Journal, 44, 31–38.</p>
<p>Mohamed Elsayed Shaltout</p> <p>Professor Male</p>	<p>Alexandria University (AU) - Egypt</p>	<p>Will contribute in WP 4,5</p>	<p>Dr. Mohamed Shaltout has many research activities in the field of sea level projection together with ocean modelling and different environmental issues. He has in depth knowledge of specific oceanic conditions along the Egyptian Mediterranean coast obtained from his Master and PH. D thesis and other assignments. Dr. Shaltout obtained his PH.D from Alexandria University by 2008, and from 2009 he is a guest researcher in two of the highly world ranked oceanographic institute; Earth science Department (Gothenburg University, Sweden) and Earth science Department (Abdus Salam International Centre for Theoretical Physics (ICTP), Italy). Dr Shaltout has studied climate change impacts on Egyptian coastal waters and the Mediterranean Sea, and has lectured extensively on this subject. He is experienced in the use and application of remote sensing tools. Dr. Shaltout is the recipient of several awards and grants for his work as oceanographer since the early days of his career. He is a keen and experienced communicator with a vast curriculum as lecturer in Egypt and abroad.</p> <p>Dr Shaltout guide more than five of research project together to be a member of Alexandria University team for Erasmus+ 2017 project funded by the European Union, entitled "Climate Change Management through Mitigation and Adaptation / (AdapTM)", Project no. (585917-EPP-1-2017-1-ITEPPKA2-CBHE-JP), 15th October 2017-14th October 2020 for 770.788,00 Euro. Dr, Shaltout leads Alexandria University team for Erasmus+ 2019 project funded by the European Union (ERASMUS, Key Action 2), entitled "Knowledge exchange in sustainable Fisheries management</p>



			<p>and Aquaculture in the Mediterranean region / (FishAqu)", Project no. (610071-EPP-1-2019-1-PT-EPPKA2-CBHE-JP)</p> <p>He has more than 10 publications in the field of ocean environment and climate change:</p> <p>https://scholar.google.com/citations?user=kQgf_6IAAAAJ&hl=sv https://www.scopus.com/authid/detail.uri?authorId=40462246800</p> <p>Shaltout, M. (2019). Recent sea surface temperature trends and future scenarios for the Red Sea. <i>Oceanologia</i>, 61 (4), 484-504.(https://doi.org/10.1016/j.oceano.2019.05.002).</p> <p>Bawadekji, A.; Tonbol, K.; Ghazouani, N.; Becheikh, N.; Shaltout, M. General and Local Characteristics of Current Marine Heatwave in the Red Sea. <i>J. Mar. Sci. Eng.</i> 2021, 9, 1048. doi: 10.3390/jmse9101048_</p> <p>EIBessa, M.; Abdelrahman, S.M.; Tonbol, K.; Shaltout, M (2021). Dynamical Downscaling of Surface Air Temperature and Wind Field Variabilities over the Southeastern Levantine Basin, Mediterranean Sea. <i>Climate</i>, 9, 150. https://doi.org/10.3390/cli9100150.</p> <p>Mangano, M., Berlino, M.,Shaltout, M., Tan, SH., Thiyagarajan, V., Sarà, S., 2022. The aquaculture supply chain in the time of covid-19 pandemic: Vulnerability, resilience, solutions and priorities at the global scale. <i>Environmental Science & Policy</i>, 127, 98-110, https://doi.org/10.1016/j.envsci.2021.10.014.</p> <p>Bawadekji, A., Tonbol, K., Ghazouani, N., Becheikh, N., Shaltout, M., 2022. Recent atmospheric changes and future projections along the Saudi Arabian Red Sea Coast. <i>Scientific Reports, Sci Rep</i> 12, 160 (2022). https://doi.org/10.1038/s41598-021-04200-z.</p> <p>Bawadekji, A., Tonbol, K., Ghazouani, N., Becheikh, N., Shaltout, M., 2022. Statistical downscaling of global climate projections over Tabuk city, northwest of Saudi Arabia. <i>Arabian Journal of Geosciences</i> 15 (14), 1-16. https://doi.org/10.1007/s12517-022-10492-w.</p> <p>Eladawy A, Nakamura T, Shaltout M, Mohammed A, Nadaoka K, Fox MD, Osman EO (2022). Appraisal of coral bleaching thresholds and thermal projections for the northern Red Sea refugia. <i>Front. Mar. Sci.</i> 9:938454. doi: 10.3389/fmars.2022.93845</p>
<p>Tamer El-Sayed Ali Professor Male</p>	<p>Alexandria University (AU) - Egypt</p>	<p>Will contribute in WP 4,5</p>	<p>Full professor and head of Oceanography Department, Faculty of Science, Alexandria University. He has a solid background in the area of fish biology and fisheries management. Prof. Ali realized his master and Ph.D. in the most prestigious schools in Spain. Moreover, he had the opportunity to join Vrije University in Amsterdam, the Netherlands as a guest researcher. He is a founder member of Biology Department, Salman Bin Abdul- Aziz University, Saudi Arabia. Prof. Ali has received Alexandria University incentive award in 2012. He has participated in many national and international projects. Also, he has supervised and examined many master and doctorate theses. He has many publications in indexed journals and books. He has participated in many national and international conferences. Also, he has a significant contribution and collaboration in different international organizations.</p> <p>El-Sayed Ali, T., Kheirallah, N. "Toxic effects of phenolic metabolite 6-OH-BDE on zebrafish (<i>Danio rerio</i>) embryos". <i>Indian Journal of Marine Science</i>. 2016; 45(5): 658-665.</p>



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<p>Omneya Ibrahim</p> <p>Associate Professor</p> <p>Female</p>	<p>Alexandria University (AU) - Egypt</p>	<p>Will contribute in WP 4,5</p>	<p>Associate professor in Oceanography department, Faculty of Science, Alexandria University. She got her Ph.D. in a joint supervision between Alexandria University, Egypt and the Finnish Environment Institute, Helsinki, Finland. She has many publications in different aspects concerning marine science published in high ranked international journals. Some of her publications in the field of sea level changes, marine heat wave, water circulation and numerical ocean modelling. She had organized and lectured many training courses and workshops in the field of Fish aquaculture and physical oceanography. She has several publications in climate change and</p> <p>She has more than 15 publications in the field of ocean environment and climate change:</p> <p>https://orcid.org/0000-0002-7683-5149</p> <p>Ibrahim O, Mohamed B, Nagy H (2021). Spatial Variability and Trends of Marine Heat Waves in the Eastern Mediterranean Sea over 39 Years. <i>Journal of Marine Science and Engineering</i>; Volume 9, Issue (6): 643. https://doi.org/10.3390/jmse9060643, ISSN: 2077-1312.</p> <p>10) Mohamed B, Nagy H, Ibrahim O (2021). Spatiotemporal Variability and Trends of Marine Heat Waves in the Red Sea over 38 Years. <i>Journal of Marine Science and Engineering</i>, Volume 9, Issue (8): 842. https://doi.org/10.3390/jmse9080842, ISSN: 2077-1312.</p> <p>Nagy H, Mohamed B, Ibrahim O. (2021) Variability of Heat and Water Fluxes in the Red Sea Using ERA5 Data (1981–2020). <i>Journal of Marine Science and Engineering</i>; Volume (9), issue 11: 1276. https://doi.org/10.3390/jmse911276, ISSN: 2077-1312.</p> <p>Ibrahim, O., El-Gindy, A. (2022) Comprehensive analysis of monthly mean sea level in the Eastern Mediterranean as a tool for prediction and risk assessment of future expected sea level rise. <i>Arab J Geosci</i> 15, 3. https://doi.org/10.1007/s12517-021-08845-y.</p> <p>Mohamed, B.; Ibrahim, O.; Nagy, H. Sea Surface Temperature Variability and Marine Heatwaves in the Black</p>

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<p>Iman Moawad Fathalla Abozeid Researcher Female</p>	<p>Alexandria University (AU) - Egypt</p>	<p>Will contribute in WP 4,5</p>	<p>Teaching assistant in oceanography department at faculty of science, Alexandria university officially from 9th January 2022 till now .joined to fish aqua master programme from January 2022 I'm interested in fish pathology and nutrigenomics.</p>
<p>Khaled Mohamed Moustafa Researcher Male</p>	<p>Alexandria University (AU) - Egypt</p>	<p>Will contribute in WP 4,5</p>	<p>Now, I am currently working as an assistant lecturer of fisheries biology (Marine biology group). Master thesis entitled (Studies on Fishery Biology of Atlantic lizardfish (<i>Synodus saurus</i>) in the Mediterranean Waters off Alexandria, Egypt). Area of interest is impact of climate change on fisheries, fisheries management, fisheries ecology, fish stock assessment, fish population dynamics and reproductive biology. I have the spirit of the team working because I have worked in the United Kingdom on different projects like the impact of global warming on various species of limpets, and I have also been a technical assistant in one of the research projects, entitled " The use of gene transfer technology for producing cold-tolerant Nile tilapia (<i>Oreochromis niloticus</i>) strain in Egypt." In my master and PhD (on speckled shrimp) theses, I have analyzed an extensive data set by using R (stock assessment) and Microsoft excel sheet, SPSS and LFDA statistical programs. This experience will help me handle extensive data set and work on the R-program. I have been a visiting scholar at Southampton University, UK. This visit offered me a good opportunity to expand my knowledge in impact of climate warming on marine environment.</p>
<p>Faiza Khebour Allouche Professor Female</p>	<p>University of Sousse (US) - Tunisia</p>	<p>Will contribute in WP 2,3,4,5</p>	<p>Professor, Expertise in the study of the desertification of the region of Menzel Habib by using satellite images. Expertise in the study of the hydraulic and environmental behavior of the watersheds of the Tunisian backbone and the CAP Bon by using the techniques of survey and statistical tools, remote sensing, photointerpretation and GIS.</p> <p>Experience:GIS Consultant - Implementation of GIS sustainable for the integrated management of target areas (Bizerte and Beja), Tunisia – Member of the PHC Magreb project: Vegetation in the colonial cities of the Maghreb; Marrakech, Algiers, Sousse. Heritage and quality of life issues".</p> <p>Bel Fekih Boussema S., Cohen M., Gad A., Khebour Allouche F., 2023. Assessing and monitoring the effects of land cover changes in biodiversity: A case study in a Mediterranean coastal region, Tunisia. Egyptian Journal of Remote Sensing and Space Sciences (IF=6.3). Bel Fekih Boussema S., Cohen M. and Khebour Allouche F., 2022. Green and blue infrastructure design in a semiarid region. Front. Environ. Sci. 10:1061256. (IF=5.41)</p>



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<p>Khaled Tamzini Professor Male</p>	<p>University of Sousse (US) - Tunisia</p>	<p>Will contribute in WP 2,3,4,5</p>	<p>Skills: - Certified MS Project; - Management de Projet (CAPM – PMI) diploma; - Lead implementer Auditor ISO 21001</p> <p>Experience: Managerial experience: 2006 - 2014 Founder & Associate Director Employer: Profil selecT, Recruitment agency – Tunis - TUNISIA. 2000 - 2001 Training Manager Employer: Social Consult – Tunis - TUNISIA.</p> <ul style="list-style-type: none"> - Member of The Africa Research, Innovation and Development Network - AFRID Network (since 2022) - Responsible of “the Entrepreneurship domain” of the MED-QUAD Project. This project targets the social determinants of health, water with all the potential risks they on life, urban planning and its impact on health and archaeology. - Member of the scientific committee of the “MED-QUAD” project, representative of the University of Sousse. - Academic coordinator of Technology-based Entrepreneurship for Supporting Sustainability in MENA Region/ MENA-Preneurs Project at the University of Sousse. - Academic responsible of the Work package: Development of technology entrepreneurship diploma. - Member of the Quality committee of the University of Sousse - Member of the Quality committee of the Faculty of Economic Sciences and Management of Sousse - Member-Referent of the Student Entrepreneur Pole of the University of Sousse - Member of the Safir project: creation or strengthening of university incubators in North Africa and the Middle East (AUF – Agence Universitaire de la Francophonie) - Pedagogical responsible and Coordinator of the Professional Master in Entrepreneurship and Project Management (2020/2021: IHEC of Sousse) <p>TAMZINI Khaled, BEN HASSINE Anissa, AYED Tahar Lazhar and DJLASSI Mohamed Fadhel (2022), The impact of environmental practices on hotel perceived performance. In Mohammed El Amine Abdelli, Nadia Mansour, Atila Akbaba, Enric Serradell-LopezSustainability, Big Data & Corporate Social Responsibility: Evidence from the Tourism Industry. CRC Press, Taylor & Francis Group, USA, 296 pages</p>
<p>Mehdi Haddada Administrator Male</p>	<p>University of Sousse (US) - Tunisia</p>	<p>Will contribute in WP 2,3,4,5</p>	<p>Skills: Lead implementer Auditor ISO 21001 Excellent skills in Project Management</p> <ul style="list-style-type: none"> - Certified in “Communication and Leadership” - Certified in « entrepreneurship development » with the DAAD, « Employability reinforcement and competences development » with the British Council and « Job search techniques » with the international foundation: « Education for Employment ».



			<ul style="list-style-type: none"> - Good skills and trainer in « Teaching pedagogy and entrepreneurship » with the GIZ and « Valorization of research results and business culture ». - Good Team leader. - Capacity in Pre-empting and managing conflicts. <p>Experience</p> <ul style="list-style-type: none"> - Director of Sousse University entrepreneurship and employability Centre. - Head of scientific research, partnership, and employability department. - Responsible of “Industrial Engineering” service in a German Company :Auto Electromechanics Manufacturing “Draexelmaier” - Coordinator of 4 projects of employability reinforcement and strategic development of Higher Education Institutions - Coordinator of EPU project “Entrepreneurial Universities in Africa” with the University of Kassel in Germany funded by the DAAD - Coordinator of SAFIR project funded by the University Agency of the Francophonie “AUF” and Expertise France on the challenges of sustainable development objectives and the social responsibility of universities - Global career development Facilitator - Consultant in « career centers management » with the USAID (United States Agency for the International Development ». - Member of the executing committee in the Regional Agency of the Industry Promotion. - Expert in project development and management. - Professional advisor with SILATEC Foundation
<p>Mohamed Banni</p> <p>Professor</p> <p>Male</p>	<p>University of Monastir (UM)- Tunisia</p>	<p>Will contribute in WP 2,3,4,5</p>	<p>ORCID ID 0000-0001-9764-0343, H index: 42. Professor Aquatic Eco-toxicology, emergent contaminants in marine ecosystems.</p> <p>*Environmental Risk assessment and management. Biochemical and molecular responses of organisms to environmental stressors.</p> <p>*Gene expression regulation of target genes to environmental stressors</p> <p>*Emergent contaminants</p> <p>Najahi H, Alessio N, Squillaro T, Conti GO, Ferrante M, Di Bernardo G, Galderisi U, Messaoudi I, Minucci S, Banni M. 2022. Environmental microplastics (EMPs) exposure alter the differentiation potential of mesenchymal stromal cells. Environ Res. 2022 Nov;214(Pt 4):114088. doi: 10.1016/j.envres.2022.114088..</p> <p>Missawi O, Jeddou IB, Venditti M, Zitouni N, Zaouali MA, Abdennebi HB, Messaoudi I, Reiter RJ, Minucci S, Banni M. 2022. Environmental microplastic accumulation exacerbates liver ischemia-reperfusion injury in rat: Protective effects of melatonin. Sci Total Environ. 2022 Nov 25:160155. doi: 10.1016/j.scitotenv.2022.160155.</p> <p>Zitouni N, Cappello T, Missawi O, Boughattas I, De Marco G, Belbekhouche S, Mokni M, Alphonse V, Guerbej H, Bousserhine N, Banni M. 2022. Metabolomic disorders unveil hepatotoxicity of environmental microplastics in wild fish <i>Serranus scriba</i> (Linnaeus 1758). Sci Total Environ. 2022 Sep 10;838(Pt 1):155872. doi: 10.1016/j.scitotenv.2022.155872.</p> <p>Helaoui S, Hattab S, Mkhini M, Boughattas I, Majdoub A, Banni M. 2022. The Effect of Nickel Exposure on Oxidative Stress of <i>Vicia faba</i> Plants. Bull Environ Contam Toxicol.</p>



			<p>2022 Jun;108(6):1074-1080. doi: 10.1007/s00128-022-03535-1.</p> <p>Abelouah MR, Ben-Haddad M, Hajji S, De-la-Torre GE, Aziz T, Oualid JA, Banni M, Ait Alla A. 2022. Floating microplastics pollution in the Central Atlantic Ocean of Morocco: Insights into the occurrence, characterization, and fate. Mar Pollut Bull. 2022 Sep;182:113969. doi: 10.1016/j.marpolbul.2022.113969.</p>
<p>Hedi Belhaj Salah Professor Male</p>	<p>University of Monastir (UM)- Tunisia</p>	<p>Will contribute in WP 2,3,4,5</p>	<p>President of the University of Monastir 2019 Vice President of the University of Monastir : 2013-2017 Director of mechanical engineering laboratory (LGM) of National school of engineers of Monastir (ENIM) : 2012-2014 Full Professor : 2009 Habilitation, Mechanical Engineering, ENIM, Tunisia : 2003 PhD, Numerical Analysis, Paris 11, Orsay-France : 1990</p>
<p>Raoui Mounir Maaroufi Professor Male</p>	<p>University of Monastir (UM)- Tunisia</p>	<p>Will contribute in WP 2,3,4,5</p>	<p>Director of the Higher Institute of Biotechnology of Monastir: December 2021). Member of the research laboratory Genetics, Biodiversity and Valorization of Bioresources (GBVB).</p> <p>Mansour MB, Balti R, Yacoubi L, Ollivier V, Chaubet F, Maaroufi RM. 2019.Primary structure and anticoagulant activity of fucoidan from the sea cucumber <i>Holothuria polii</i>.Int J Biol Macromol. 2019 Jan;121:1145-1153. doi: 10.1016/j.ijbiomac.2018.10.129.</p> <p>Ben Mansour M, Balti R, Ollivier V, Ben Jannet H, Chaubet F, Maaroufi RM. 2017. Characterization and anticoagulant activity of a fucosylated chondroitin sulfate with unusually procoagulant effect from sea cucumber. Carbohydr Polym. 2017 Oct 15;174:760-771. doi: 10.1016/j.carbpol.2017.06.128.</p> <p>Dhahri M, Abed A, Lajimi RH, Mansour MB, Gueguen V, Abdesselem SB, Chaubet F, Letourneur D, Meddahi-Pellé A, Maaroufi RM.Grafting of dermatan sulfate on polyethylene terephthalate to enhance biointegration.J Biomed Mater Res A. 2011 Jul;98(1):114-21. doi: 10.1002/jbm.a.33077.</p> <p>Dhahri M, Mansour MB, Bertholon I, Ollivier V, Boughattas NA, Hassine M, Jandrot-Perrus M, Chaubet F, Maaroufi RM.Anticoagulant activity of a dermatan sulfate from the skin of the shark <i>Scyliorhinus canicula</i>.Blood Coagul Fibrinolysis. 2010 Sep;21(6):547-57. doi: 10.1097/MBC.0b013e32833b643b.</p>
<p>Imed Messaoudi Researcher Male</p>	<p>University of Monastir (UM)- Tunisia</p>	<p>Will contribute in WP 2,3,4,5</p>	<p>ORCID https://orcid.org/0000-0002-4025-8765, professor in Aquatic Eco-physiology, main research activity: Assessment of the effects of cadmium pollution in Tunisian environment on natural fish populations. Elucidating the mechanisms of interaction between cadmium and zinc as well as cadmium and melatonin at the level of physiological functions. Microplastics exposure and physiologic dysfunction.</p> <p>Haddadi A, Kessabi K, Boughammoura B, Ben Rhouma M, Mlouka R, Banni M, Messaoudi I. Exposure to microplastics leads to a defective ovarian function and change in cytoskeleton protein expression in rat. Environ Sci Pollut Res Int . 2022 May;29(23):34594-34606.</p> <p>Chouchene L, Kessabi K, Gueguen MM, Kah O, Pakdel P, Messaoudi I. Interference with zinc homeostasis and oxidative stress induction as probable mechanisms for cadmium-induced embryo-toxicity in zebrafish. Environ Sci Pollut Res Int . 2022 Jun;29(26):39578-39592.</p>



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<p>Leila Hamida</p> <p>Professor</p> <p>Female</p>	<p>University of Monastir (UM)- Tunisia</p>	<p>Will contribute in WP 2,3,4,5</p>	<p>Professor in marine Biology. Main research activity: marine bivalves fitness in response to environmental conditions. recently interested to the evaluation of the microplastic impact on marine organisms. She is coordinator of the Co-constructed Professional Master in Marine Biotechnology and Entrepreneurship.</p> <p>Mannai, A., Hmida, L., Bouraoui, Z., Gharred, T., Jebali, J. 2022.Does thermal stress modulate the biochemical and physiological responses of <i>Ruditapes decussatus</i> exposed to the progestin levonorgestrel? <i>Environmental Science and Pollution Research</i> this link is disabled, 2022, 29(56), pp. 85211–85228</p> <p>Hmida, L., Fassatoui, C., Missaoui, S., ...Le Loc'h, F., Ben Rais Lasram, F. 2021. Morphological and genetic characterization of the invasive rayed pearl oyster <i>Pinctada imbricata radiata</i> (Mollusca: Bivalvia: Pteriidae) populations from contrasting environments along the Tunisian coast. <i>Marine Biology Research</i> this link is disabled, 2021, 17(2), pp. 200–214</p> <p>Fassatoui, C., Hmida, L., Jenhani, A.B.R., Romdhane, M.S. 2019.Length-weight relationship and growth parameters of the commercial fish <i>Pagellus erythrinus</i> (Linnaeus, 1758) (Actinopterygii: Sparidae) from northern and southern Tunisia <i>Biological Letters</i> this link is disabled, 2019, 54(1), pp. 3–11</p> <p>Ayache, N., Hmida, L., Cardoso, J.F.M.F., ...Costa, F.D., Romdhane, M.S. 2016.Reproductive Cycle of the Razor Clam <i>Solen marginatus</i> (Pulteney, 1799) in the Southern Mediterranean Sea (Gulf of Gabes, South Tunisia). <i>Journal of Shellfish Research</i> this link is disabled, 2016, 35(2), pp. 389–397</p>
<p>Kawthar Kessabi</p> <p>Assistant Professor</p> <p>Female</p>	<p>University of Monastir (UM)- Tunisia</p>	<p>Will contribute in WP 2,3,4,5</p>	<p>ORCID ID: 0000-0002-4053-327X Assistant professor in Aquatic Eco-physiology, main research activity: Assessment of the effects of emergent pollutants such as Microplastic in Tunisian environment on natural fish populations.</p> <p>Lahmar S, Kessabi K, Banni M, Messaoudi I.2020. First evidence on protective effect of exogenous melatonin supplementation against disruption of the estrogenic pathway in bone metabolism of killifish (<i>Aphanius fasciatus</i>). <i>Fish Physiol Biochem.</i> 2020 Apr;46(2):747-757. doi: 10.1007/s10695-019-00748-w. Epub 2019 Dec 18.</p> <p>Kessabi K, Navarro A, Casado M, Saïd K, Messaoudi I, Piña B.2010. Evaluation of environmental impact on natural populations of the Mediterranean killifish <i>Aphanius fasciatus</i> by quantitative RNA biomarkers. <i>Mar Environ Res.</i> 2010 Sep-Oct;70(3-4):327-33. doi: 10.1016/j.marenvres.2010.06.005.</p> <p>Kessabi K, Annabi A, Hassine AI, Bazin I, Mnif W, Saïd K, Messaoudi I. 2013. Possible chemical causes of skeletal deformities in natural populations of <i>Aphanius fasciatus</i> collected from the Tunisian coast. <i>Chemosphere.</i> 2013 Mar; 90(11):2683-9. doi: 10.1016/j.chemosphere.2012.11.047.</p> <p>Boughammoura S, Kessabi K, Chouchene L, Messaoudi I. 2013. Effects of cadmium and high temperature on some</p>

			parameters of calcium metabolism in the killifish (<i>Aphanius fasciatus</i>). <i>Biol Trace Elem Res.</i> 2013 Jul;154(1):73-80. doi: 10.1007/s12011-013-9714-8.
Ilef Romdhani Researcher Female	University of Monastir (UM)- Tunisia	Will contribute in WP 2,3,4,5	Phd Student under the supervision of Pr Mohamed Banni *Characterization of the effect of environmental microplastics alone or combined with a chemical contaminant on the reproduction and embryo-larval stages of the mussel <i>Mytilus galloprovincialis</i> .
Riyad Manasrah Professor Male	University of Jordan (JU)- Jordan	Will contribute in WP 2,3,4,5	Professor of Physical Oceanography at the Dept. of physics, University of Jordan. Major on general circulation and water masses characteristics in the Gulf of Aqaba and northern Red Sea. Special emphasis is given to Physical oceanography of Deep and coastal water circulation, water masses characteristics, and Observation of physical properties of marine coastal ecosystem.
Mohammad Al-Zibdah Researcher Male	University of Jordan (JU)- Jordan	Will contribute in WP 2,3,4,5	PhD in fishery and aquaculture. Research interest considers efficient and innovative techniques to introduce aquaculture in the coral reef environment in such a way that secures sustainability for both the ecosystem and proves viability from the economic perspective. Early larval stages and nutrition of aquaculture species (fish and shellfish). Environmental monitoring of coastal sites for integrated coastal zone management (ICZM) along the Jordanian Gulf of Aqaba/Red Sea. Coordinator and principal investigator for several national, regional and international R&M projects at the SBMS.
Zeinab Arabeyyat Researcher Female	University of Jordan (JU)- Jordan	Will contribute in WP 2,3,4,5	She has completed her PhD studies at the University of Hull, UK in 2017. Her major is Biological Sciences. Zeinab's is a Fulbright Alumni from the University of Nebraska Medical Center (UNMC) and an Associate Fellowship of the HEA (AFHEA), the UK Professional Standards Framework (UKPSF) for teaching and supporting learning in higher education, UK. Currently she teaches various modules in the field of molecular biology, biotechnology, cell biology, molecular evolution and microbiology in the Department of Marine Biology. Her predominant research interest is Molecular Ecology and coral reef restoration.
Hanin Al-Zibdah Researcher Female	University of Jordan (JU)- Jordan	Will contribute in WP 2,3,4,5	PhD students with a fellowship from Jordan University to Houston university, TXS. She is pursuing her higher studies in ecotourism a subject that supports the objectives of blue economy
Fuad A. Al-Horani Professor Male	University of Jordan (JU)- Jordan	Will contribute in WP 2,3,4,5	Professor of Marine Biology and Ecology/ Coral Eco-Physiology. Broad interests in Coral Reefs' Eco-Physiology studies. Development of Artificial Reefs. Aquaculture of coral reef organisms for restoration and research purposes.
Majed Ibrahim Associate Professor Male	AL al-Bayt University (AABU)- Jordan	Will contribute in WP 2,3,4	https://orcid.org/0000-0001-9841-9747 Dr. Majed Ibrahim "Associate professor in remote sensing and geographic information system at Faculty of Earth and Environmental Sciences", holding a PhD degree in remote sensing and GIS from Albert-Ludwigs-Universität Freiburg Germany. Dr. Ibrahim worked as research visitor in chair of Remote Sensing and Landscape Information Systems in Freiburg university his researches focus on various topics in remote sensing and GIS applications in natural resources, i.e. land use land cover, groundwater vulnerability



			<p>assessment, and hydrology, water resources management in semi-arid regions. In addition, climate changes i.e. land surface temperature and sea surface temperature.</p> <p>Al-Mashagbah, A. Ibrahim. M, Al-Fugara. A, Alzaben. H. (2021). Detecting Spatial and Temporal Patterns of Urban Growth and Sprawl Using Remote Sensing, GIS and Spatial Indexes in Irbid City, Environmental Engineering, Research (Under processing in Journal).</p> <p>Al-Raggad, M., Al-Harashsheh, S., Ibrahim, M., Al-Shdaifat, A., & Al-Wreikat, M. (2021). An Integrated Hydrogeological and Remote Sensing Modeling Approach to Evaluate the Climate Change and Over-Irrigation Impact on Groundwater Depletion in North Jordan. The Iraqi Geological Journal, 12-27. https://doi.org/10.46717/igj.54.2B.2Ms-2021-08-22</p> <p>Elhadad. E, Ibrahim. M, Al-Fawwaz. A. (2021). Effects of Pollution on Hydrogeochemistry and Water Quality of the Damietta Branch (Nile River, Egypt), Water Science and Technology, Vol 84 No 6, 1509 doi: 10.2166/wst.2021.327.</p> <p>Shatnawi, A. Ibrahim, M., (2022). Derivation of flood hydrographs using SCS synthetic unit hydrograph technique for housha catchment area. Water Supply Journal. (https://doi.org/10.2166/ws.2022.169).</p> <p>Ibrahim, M., Shatnawi, A. (2022). Delineate Groundwater Potential Recharge Sites Using Math Approach in Remote Sensing and GIS Techniques. Water Supply Journal. (https://doi.org/10.2166/ws.2022.046</p>
<p>Hatem Almasaeid</p> <p>Assistant Professor</p> <p>Male</p>	<p>AL al-Bayt University</p> <p>(AABU)- Jordan</p>	<p>Will contribute in WP 2,3,4</p>	<p>https://orcid.org/0000-0003-0291-6576</p> <p>Dr. Hatem Almasaeid "Assistant professor in Civil Engineering/ Faculty of Engineering", holds a Ph.D. degree in Civil Engineering from University of Mississippi-USA. Dr. Almasaeid work as assistant profissor at Jordan University of Science and Technology and Al-Zaytoonah University of Jordan before joining Al al-Bayt University. The Research intrests of Dr. Almasaeid are Sustainability in construction engineering, Sustainable construction materials, nondestructive testing, additive manufacturing of cementitious binders, and applications of artificial neural networks. The following are samples of Almasaeid's publications:</p> <p>Haddad, R. H., & Almasaeid, H. H. (2016). Recovering shear capacity of heat-damaged beams using NSM-CFRP strips. Construction and Building Materials, 105, 448-458.</p> <p>Al-Masaeid, H. R., Magsi, T. M., & Almasaeid, H. H. (2021). Consistency of interchange outer connection ramps. Canadian Journal of Civil Engineering, 48(9), 1063-1070.</p> <p>Almasaeid, H. H., Suleiman, A., & Alawneh, R. (2022). Assessment of high-temperature damaged concrete using non-destructive tests and artificial neural network modelling. Case Studies in Construction Materials, 16, e01080.</p> <p>Allouzi, R. A., Almasaeid, H. H., Salman, D. G., Abendeh, R. M., & Rabayah, H. S. (2022). Prediction of Bond-Slip Behavior of Circular/Squared Concrete-Filled Steel Tubes. Buildings, 12(14), 456-477.</p> <p>Almasaeid, H. H., & Salman, D. G. (2022). Application of Artificial Neural Network to Predict the Properties of Permeable Concrete. Civil engineering and architecture, 10(6), 2292-2305.</p>



<p>Ibraheem Hamdan</p> <p>Assistant Professor</p> <p>Male</p>	<p>AL al-Bayt University</p> <p>(AABU)- Jordan</p>	<p>Will contribute in WP 2,3,4</p>	<p>https://orcid.org/0000-0001-7728-1718</p> <p>Dr. Ibraheem Hamdan "Assistant professor in hydrogeology at Faculty of Earth and Environmental Sciences", holding a PhD degree in Hydrogeology from Georg-August University of Goettingen, Germany. M.Sc. in Water and Environmental Resources, and B.Sc. in Applied Earth and Environmental Sciences from Al Al-Bayt University, Jordan.</p> <p>Dr. Ibraheem Hamdan is a senior hydrogeologist worked for over than 8 years with the Federal German Institute for Geosciences and Natural Resources (BGR) with their international projects in Jordan with an experience in various aspects of hydrogeology, water resources management in semi-arid areas, and GIS applications in hydrogeology, with the focus on various topics in hydrogeology, i.e. aquifer characterization, groundwater vulnerability assessment, and pollutants travel time especially in karstic aquifers.</p> <p>Khazaa'lah, M., Talazi, S. & Hamdan, I. Assessment of groundwater vulnerability using GIS-based COP model in the northern governorates of Jordan. <i>Model. Earth Syst. Environ.</i> (2022). https://doi.org/10.1007/s40808-022-01486-4</p> <p>Brückner, F., Bahls, R., Alqadi, M. Lindenmaier, F., Hamdan, I., Alhiyari, M., Atieh, A. (2021) Causes and consequences of long-term groundwater overabstraction in Jordan. <i>Hydrogeology Journal</i> (2021), 29: 2789-2802. https://doi.org/10.1007/s10040-021-02404-1.</p> <p>Hamdan, I., Licha, T., Toll, M., Margane, A., Sauter, M. (2020) Quantification of wastewater pollution load using potassium concentrations in karst spring discharges. <i>Environmental Earth Science</i> (2020) 79:402. https://doi.org/10.1007/s12665-020-09145-6.</p> <p>Hamdan, I., Ptak, T., Wiegand, B., Sauter M. (2020) Development of a quantitative transport-time-based groundwater vulnerability model for non-point-source pollution in karst aquifers: a conceptual approach and example from the Tanour and Rasoun spring catchment, north-western Jordan. <i>Hydrogeology Journal</i> (2020) 28:1091–1106. https://doi.org/10.1007/s10040-019-02094-w.</p> <p>Alqadi M., Margane A., al Raggad M., Subah A., Disse M., Hamdan I., Chiogna G. (2019) Implementation of Simple Strategies to Improve Wellfield Management in Arid Regions: The Case Study of Wadi Al Arab Wellfield, Jordan. <i>Sustainability Journal</i> (2019) 11 (21), 5903. doi.org/10.3390/su11215903.</p>
<p>Ahmad Alshdaifat.</p> <p>Assistant Professor</p> <p>Male</p>	<p>AL al-Bayt University</p> <p>(AABU)- Jordan</p>	<p>Will contribute in WP 2,3,4</p>	<p>Assistant professor in the field of Quaternary Sedimentology at the Faculty of Earth and Environmental Sciences. Dr. AlShdaifat holds a PhD degree in Quaternary Sedimentology from The Univeristy of Nottingham, the United Kingdom. M.Sc. in Applied Geology, and B.Sc. in Applied Earth and Environmental Sciences from Al Al-Bayt University, Jordan.</p> <p>Dr. AlShdaifat is a senior sedimentologist and palaeoenvironmentalist with an experience of about 8 years in the fields of sedimentology and palaeoenvironmental reconstruction. Dr. AlShdaifat also worked on different projects related to water resources management and treated wastewater management. Dr. AlShdaifat current research focuses on using sediments as archives for past environmental and climatic changes</p> <p>Jones, M.D., Richter, T., Rollefson, G., Rowan, Y., Roe, J., Toms, P., Wood, J., Wasse, A., Ikram, H., Williams, M., AlShdaifat, A., Pedersen, P.N., Esaid, W. (2021). The</p>



			<p>palaeoenvironmental potential of the eastern Jordanian desert basins (Qe'an). Quaternary International. doi: 10.1016/j.quaint.2021.06.023.</p> <p>Jones, M.D., Abu-Jaber, N., AlShdaifat, A., Baird, D., Cook, B.I., Cuthbert, M.O., Dean, J.R., Djamali, M., Eastwood, W., Fleitmann, D., Haywood, A., Kwiecien, O., Larsen, J., Maher, L.A., Metcalfe, S.E., Parker, A., Petrie, C.A., Primmer, N., Richter, T., Roberts, N., Roe, J., Tindall, J.C., Ünal-Imer, E., Weeks, L., (2019). 20,000 years of societal vulnerability and adaptation to climate change in southwest Asia. Wiley Interdisciplinary Reviews: Water 6, e1330. doi:10.1002/wat2.1330.</p> <p>Alraggad, M., Johnsen-Harris, B., Shdaifat, A., Hamaideh, A. (2017). Groundwater resilience to climate change in the eastern Dead Sea basin Jordan. Scientific Research and Essays, 12:3, 24-41.</p> <p>Abbas, M., Al-Saqarat, B., Al-Shdaifat, A. (2016). Paleoclimate reconstruction of the quaternary sediments near the Gulf of Aqaba (Southern Jordan). Arabian Journal of Geosciences, 9, 1-13.</p>
<p>Najah Al-Shanableh</p> <p>Assistant Professor</p> <p>Female</p>	<p>AL al-Bayt University</p> <p>(AABU)- Jordan</p>	<p>Will contribute in WP 2,3,4</p>	<p>https://orcid.org/0000-0001-9877-8782</p> <p>Najah Al-shanableh is an assistant professor in the computer science department at Al al-Bayt University in Mafrq city. She has an Interdisciplinary doctorate in computer science and nursing. Her research interests are Data mining, refugee studies, Analytics, and Digital education. Dr. Al-shanableh has been working in academia in Jordan since Sep 2018 but has been an instructor and researcher in higher education since 2014.</p> <p>Dr. Al-shanableh was a co-investigator in UKRI funded project (PPE & Refugees: dealing with a crisis by building livelihoods), and she has been working with refugees since 2020. She also participated in the Refugees' studies workshop in July 2022 with Dr. Palash Kamruzzaman from the University of South Wales.</p> <p>Al-Shdayfat, N., Alnatour, A., Alhusban, R., Yehia, D., Al-shanableh, N. M., Alsaraireh, A., & M. Alkhawaldeh, J. (2022). Student Nurses Attitudes Towards Using Social Media to Raise the Awareness of their Community about the COVID-19 Pandemic in Jordan. The Open Public Health Journal, 15(1), 1–7. https://doi.org/10.2174/18749445-v15-e2201120</p> <p>Abu Salimeh, A., Al-shanableh, N., & Alzyoud, M. (2022). Natural Language Processing and Parallel Computing for Information Retrieval from Electronic Health Records. ITM Web of Conferences, 42, 01013. https://doi.org/10.1051/itmconf/20224201013</p> <p>Ababneh, A., Al-shanableh, N., & Alzyoud, M. (2021). A Review of Algorithms and Techniques for Analyzing Big Data. International Journal of Emerging Trends in Engineering Research, 9(6), 695–702. https://doi.org/10.30534/ijeter/2021/14962021</p>
<p>Soud Al Maddan</p> <p>Administration</p>	<p>AL al-Bayt University</p> <p>(AABU)- Jordan</p>	<p>Will contribute in WP 2,3,4</p>	<p>Mr. Soud Al Maddan " Head of Quality Division at Quality and Development Center", holding a MS degree in Software Engineering / Zarqa University - Jordan. Mr. Al Maddan worked as software Tester at Al al-Bayt University for seven years, and currently holds the position of head of the Quality Division. He masters proofreading, auditing and editing skills, as well as documentation and follow-up skills. In addition to</p>



Male			his experience in the team work of the executive committees within the organization as a secretary and rapporteur.
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Outside resources (subcontracting, seconded staff, etc)

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

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

The BLUE-ERA consortium is well positioned, responsibilities have been distributed based on competencies, and it has the resources to implement this project. All main operations, coordination, and management are handled by the beneficiaries' universities. External resources are brought in to supplement, multiply, and provide fresh perspectives, not to replace the consortium's competencies. **The BLUE-ERA project plans the selection of three external experts (just in case there is a need): 1. Monitoring and Evaluation Expert (EME), 1. Quality Assessment Expert (EQE), and 1. Sustainability Expert (ESE).**

Monitoring and Evaluation Expert, **(EME)** provides an outside perspective and independence from the partners. The expert will create a Monitoring and Evaluation (M&E) Plan as well as periodic M&E reports to assist the coordinator in making changes and corrections. The task of the sustainability expert **(ESE)** is to guide beneficiary partners in determining the ideal strategy to ensure the long-term viability of the project outcomes. Quality Assessment Expert **(EQE)** will work with the consortium to develop a quality strategy, design quality indicators and standards, and lead correct indicator analysis. Quality is such a specialist topic that it is advisable to let an outside professional who specialises in it oversee the process. As a result, the primary contributors (researchers, instructors, etc.) may concentrate on providing the greatest quality information to their students. Last but not least, one of the advantages of working with these experts is that the partner institutions gain a wealth of knowledge that can be applied to other projects and initiatives.

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

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

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

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

The budget has been cleverly managed in order to fulfil the project's objectives and needs. Also, support the percentage of activities needed for each partner to achieve the intended outcomes with the necessary budget for all beneficiaries. To guarantee cost efficiency, the following actions were implemented:

- 1- Budget and cost effectiveness in BLUE-ERA are established on the basis of assigned criteria and recommendations for ERASMUS+ applications.
- 2- The projected activities of consortium members in the project is the base for Staff and travelling costs.
- 3- Different categories of staff are utilised to ensure that tasks that can be performed by qualified and less costly employees (administrators and technicians) are not performed by more expensive personnel (managers and researchers/professors). These four categories are utilised by all beneficiaries, with cost-adjustment suggestions from the Erasmus+ guidelines for each country.
- 4- Travel has been reduced by conducting various activities so that visitors may perform numerous duties on a single visit, such as monitoring, dissemination, promotion, and financial management. In addition, the coordinator will schedule a monthly online conference and a flash meeting to decrease the number of face-to-face meetings. It should be noted that this is in accordance with the EC's aims for minimizing the project's environmental effect.
- 5- The equipment budget is distributed to all partner institutions where the master's degree will be established (i.e., the Tunisian, Egyptian, and Jordanian universities). Only the most critical and project-specific equipment and software (for lab setup) are permitted. Purchases of non-essential and general-purpose office equipment (laptops, projectors, etc.) will be prohibited. Moreover,



- during management meetings, clear protocols will be established to guarantee that cost-effective methods (such as cost analysis, etc.) are used in the purchase of equipment and supplies.
- 6- We will receive better prices if we plan ahead of time and avoid last-minute premiums. This will apply to flights, equipment, and conference planning, and so on. BLUE-ERA will obtain the best available rates by adhering to strict management standards and preparing ahead of time.
 - 7- Staff costs are incurred for the necessary efforts, with a good appreciation based on competencies.
 - 8- The progress and participation of staff will be monitored throughout the project in order to achieve the best results with the available resources.
 - 9- Purchase processes and meticulous record-keeping will meet both severe reporting requirements and financial audits.
 - 10- Outside resources are selectively allocated a modest amount of the budget (far below the 10 % limit), these outside resources are not to replace core operations but rather to improve and increase the project's efficacy.
 - 11- Outside resources must be: selected from the start of the project; their budget must be properly defined and fixed; professionals will be picked based on quality and value; and they must sign an agreement or memorandum of understanding outlining their roles and deadlines.
 - 12- Regarding the outside resources, in case of any delay or lack of commitment, the agreement will be cancelled and another service provider will be replaced.

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2.1.5 Risk management

Critical risks and risk management strategy

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

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

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

Risk No	Description	Work package No	Proposed risk-mitigation measures
1	Risk: Conflict between partners and beneficiaries The impact: lack of agreement throughout; lack of a strategic memorandum of understanding; bad performance outcomes. The likelihood of its occurrence is low.	WP1	<ul style="list-style-type: none"> • The consortium must enjoy the art of negotiation, which prevents conflicts at their source. • The project coordinator is ultimately responsible for conflict resolution (PC).The PC will guarantee that all rulings are made fairly, ethically, and within the bounds of the consortium. However, if difficulties are impossible to solve, the first step in resolving them will be for the PC to discuss the issue with the interested parties in an attempt to reach an agreeable solution. <p>If no resolution is reached, the next step will be to present it to the Steering Committee (SC). If the matter cannot be addressed with the parties' consent, it may be necessary to approach the Erasmus+ National Agency, depending on the nature of the conflict.</p>
2	Risk: Legislation issues	WP1	The consortium will take all the measures to monitor legislative



	<p>Impact: Legislation changes concerning higher education, e-learning, financial rules, procurement and taxation</p> <p>The likelihood of its occurrence is medium.</p>		changes and develop strategies in advance to minimize adverse impacts.
3	<p>Risk: Late response of the project partner(s).</p> <p>The impact: Lowering the project's overall success. Postponed tasks will not have the same reach and societal impact as BLUE-ERA.</p> <p>The likelihood of its occurrence is low.</p>	ALL	<ul style="list-style-type: none"> • Each partner's tasks have been divided up and communicated since Blue-ERA's proposal submissions. • The PC closely observes implementations of the project activity that will finish on time, also continuously communicates directly with activity leaders and ensures tasks are completed on time. • External time delays are forwarded to the Steering Committee, which is in charge of determining the appropriate course of action.
4	<p>Risk: Delays in the acquisition of equipment.</p> <p>Impact: students will be unable to finish their research projects and will be worried about the approaching deadline.</p> <p>The likelihood of its occurrence is low.</p>	WP 5	<ul style="list-style-type: none"> • The procurement procedure might be problematic and hence requires special attention. It will begin at the onset of the project. The partners have already developed a list of required equipment, software, and so on, taking into account the suppliers' perspectives and the assigned money. Starting early and knowing the process well reduces risk. • Second, there are senior professors and executives on the initiative who understand and have some clout with their universities' bureaucracies. This reduces the risk even further.
5	<p>Risk: Time delays in the accreditation approval of the master's degree from the responsible authorities at the beneficiary universities.</p> <p>Impact: delay in establishing the first intake of the master's degree.</p> <p>The likelihood of its occurrence is low.</p>	WP2	<ul style="list-style-type: none"> • Senior professors, executives, and powerful individuals will be part of the consortium, and the memorandum of understanding will outline the agreement, timeframes, deliverables, tasks, and expectations. • The beneficiary universities are well-established and deeply rooted; they have strong leadership capable of obtaining accreditation.
6	<p>Risk: Insufficient funding to carry out vital actions.</p> <p>Impact: Certain activities and travel may be decreased or cancelled, and the project may be changed to reflect the realities of the new budget.</p>	WP1	<ul style="list-style-type: none"> • The Blue-ERA budget is characterised by transparency, credibility, and clarity. It is directed and planned to achieve the best possible results with the Erasmus+ fund. So, the proposal and the schedule for payments, contributions (by the partners), and depreciation will be spelled out in the grant and partnership



	The likelihood of its occurrence is medium.		<p>agreement. That means that going into the project all necessary funds will be accounted for.</p> <ul style="list-style-type: none"> Throughout the project, a task (T1.1) is allocated to finance management for strict monitoring. If there are unanticipated circumstances that require modifications, they will be made within the terms of the agreement, and an amendment may be filed if necessary.
7	<p>Risk: The blue economy's transfer culture is an initiative that has piqued the curiosity of the labour market.</p> <p>Impact: shortage of employability as a result of the absence of collaboration between industry and academics.</p> <p>The likelihood of its occurrence is low</p>	WP3	<p>The consortium is already aware of the local needs and has a work package (WP3) targeted at networking with the labour market, as well as seminars and workshops for labour market participants (WP6). The feedback they offer will be used to modify the activities so that they are more effective in enhancing cooperation with academia and student employability. The addition here is that the graduates of this master's degree will be unique.</p>
8	<p>Risk: Delays and issues with service delivery and outsourcing.</p> <p>Financial impact: on the project (overcharging) and output quality (not delivering what was agreed).</p> <p>The likelihood of its occurrence is low.</p>	WP1	<ul style="list-style-type: none"> To begin, the consortium will hire recognised experts. Second, an MOU will outline the agreement, timeframes, deliverables, tasks, and expectations.

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2.2 PARTNERSHIP AND COOPERATION ARRANGEMENTS

2.2.1 Consortium set-up

Consortium cooperation and division of roles (if applicable)

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

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

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

To achieve the goals of the project, a consortium with a well-recognized background and specific competence has been put together. The consortium is formed by considering that cooperation is crucial and all partners have a strong interest and motivation in carrying out the activities of the project, as well as a clear role that will lead to sound and exploitable results. There is significant synergy and complementary competences and expertise between the partners and there is a healthy combination of existing and new collaboration for educational programs (such as Erasmus+ and other capacity building initiatives) and also research collaboration in blue economy and oceanography. All beneficiaries will have well defined contributions, tasks, responsibilities, key metrics and indicator and resources to accomplish those tasks (as



spelled out in the work packages). Furthermore, all beneficiaries will be actively involved in the management and monitoring of the project (WP1) so that they have a sense of ownership and vested interest in the success of the entire project and not just their part. Each beneficiary has budget for the necessary personnel (manager, researcher, administrator and technician), for travel, for hosting of events and purchasing equipment (if need be) and has allocated the necessary resources for the completion of their tasks.

Participant	Competence Relevant to BLUE-ERA	Contribution to the projects activity
<p>1. University of the Littoral Opal Coast (ULCO) - France</p>	<p>The University of the Littoral Opal Coast (ULCO) is a public university located in the Nord and Pas-de-Calais departments of northern France. The university is located near 3 important harbours*, which gives the university a specificity in the maritime field. ULCO welcomes about 10,000 students, including more than 1,000 international students. The university is involved in numerous European and international partnerships, particularly with the countries of the southern Mediterranean (double degrees, doctoral theses in co-supervision, etc.).</p> <p>Our motto at ULCO is: The University with a human dimension open to the world!</p> <p>In terms of teaching offers, we are a multidisciplinary university and have 4 main teaching fields:</p> <ul style="list-style-type: none"> • Arts and Languages • Law, Economics and Management • Social and Human Sciences • Science & Technology, Health / Science and Techniques for Physical and Athletic Activity (STAPS) <p>Our quality training courses are based on the expertise of research laboratories whose excellence is recognised by evaluation bodies. The multi-disciplinary nature of the courses on offer enables users to benefit from a rich and complementary range of training courses based on innovative educational projects. Throughout their studies, we support students to help them build their professional project, enhance their career path and prepare their access to employment. ULCO has a</p>	<p style="text-align: center;">Chaired</p> <p style="text-align: center;">Steering Committee (SC)</p> <p>In order to meet the needs of a sustainable blue economy, many of ULCO's researchers work on marine and maritime issues. Among the themes addressed are studies of anthropogenic impacts, climate change, protection and management of marine living resources, ecosystem services, shoreline morphodynamics, ocean-atmosphere-land interactions, coastal tourism, governance and coastal planning policies, port management, maritime transport and trade, marine renewable energies, etc. These research activities, which are most often carried out through interdisciplinary approaches between natural and human and social sciences, are carried out within the different research units of ULCO and grouped together within the ISML. These research units cover all disciplines related to the Ocean (incl. e.g. physical oceanography, geology, ecology, geography, economics, law...) and, put together, are able to address the multi-faceted challenges of the future ocean and coasts. For example, the Laboratory of Oceanography and Geosciences (LOG UMR 8187), one of the most important laboratories at ULCO, is a nationally and internationally recognised laboratory in the field of marine sciences. In terms of training, ULCO offers several masters based on the research themes mentioned above. For example :</p> <p>Master ' Marine sciences'</p> <p>Master 'Integrated coastal zone management'</p> <p>Master 'Port and Maritime Management'</p>



	<p>Pedagogical Innovation Center (CIP) which is a development and pedagogical innovation support structure. It aims to enrich and diversify professor and research professor pedagogical practices as individuals or in a teaching staff context. The ultimate goal of this is to foster student success. Since 2008, ULCO has had a Centre Entrepreneuriat du Littoral (CEL) to help anchor and develop university entrepreneurship.</p> <p>Research is structured according to 3 main topics</p> <ul style="list-style-type: none"> • Sea and coastline: transformations and challenges • Technological and Environmental sciences • Humanities and Integrated territories <p>ULCO have 14 research units (laboratories)</p> <p>The marine and coastal topic is at the core of ULCO's strategy, as indicated in its name « Université du Littoral Côte d'Opale ». ULCO is part of the French Marine Universities network (https://www.universites-marines.fr/). Sustainable blue economy is at the heart of ULCO's institutional strategy for research, teaching and the development of socio-economic partnerships. In 2020, an Institute of Marine and Coastal Sciences (ISML : https://ismf.univ-littoral.fr/) was set up with the aim of strengthening and structuring marine sciences research and teaching offer as well as technology transfers and science-society, in line with the challenges and expectations of the maritime sector. The excellence of ULCO's marine research and teaching was recognized by the award in 2021 of the French PIA 4 Excellence project: IFSEA "Transdisciplinary graduate school for marine, Fisheries and SEAfood sciences".</p> <p>Based on its expertise in marine and maritime sciences, ULCO has the goal of increasing its</p>	<p>Master 'Environmental Economics and Management and Sustainable Development'</p> <p>Master 'Expertise & treatment in environment'</p> <p>Master 'Supply chains and modeling'</p> <p>Master 'Urban and coastal planning policies'</p> <p>Master 'Coastal tourism'</p> <p>The recent implementation of the IFSEA graduate school at ULCO will allow to carry out innovative research and train future generations of researchers and professionals to tackle the environmental, societal and economic challenges of the blue economy through transdisciplinary approaches.</p>
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	<p>relations with universities of excellence in Europe and world-wide to increase its international visibility and to play a significant role in the establishment of education and research partnerships in this field.</p> <p>* - Boulogne-sur-Mer, France's leading fishing port and Europe's largest seafood processing centre</p> <p>- Calais, the leading port in France for passengers traffic and the 2nd largest port in Europe for roll on-roll off services (Ro-Ro)</p> <p>- Dunkerque , the France's third-ranking port, well known as a port handling heavy bulk cargoes for its numerous industrial installations.</p>	
<p>2. Universidad de estudios de Palermo (UNIPA) - Italy</p>	<p>The University of Palermo (UNIPA) is a consolidated cultural, scientific and teaching presence in central-western Sicily. Its 5 Schools and 16 Departments cover the most important domains of contemporary scientific and technological knowledge. About 122 courses (first and second cycle) are yearly offered as well as 44 master and specialization and 23 PhD courses, targeted to the training of specific professional figures, often in cooperation with external institutions and companies - a galaxy which attracted about 10,000 first-year students for academic year. Researchers at UNIPA study every day to find new solution to the questions posed by nature, science and society. Laboratories are open to the local community, and this represents the first step of collaboration between researchers in the academic world and in the business world are taken, basic and applied research is carried out, and young brains are given the chance to turn their intuitions to good account. Successful technological transfer implies the full synergy of innovative technologies, scientific expertise, production systems and processes. Actually, it is necessary to implement a full-fledged system including the</p>	<p>Chaired Project Coordinator (PC)</p> <p>The research conducted concerns the theme of the Blue Economy. It characterizes the long-term strategy for sustainable growth that arises in the marine and maritime sectors, including all human activities that use the resources of the sea, coasts and seabed for industrial activities and the development of services. Great importance is given to the aspects of systemic biomonitoring of the areas impacted by anthropogenic actions.</p> <p>The researchers are able to project and develop master teaching modules and later teaching and give student assistance. Staff normally participate to preparation, development, quality plan, dissemination & exploitation and management, seminars/training, talks and lab activities on topics such as oceanography, fishery, aquaculture, stress immunity and aquaculture, climate and mechanistic modelling, ecosystem approach to fishery management, marine ecology and production processes, fished species life histories and distribution, fishing gears and techniques, fishers, socioeconomics, fishing effects on populations and communities, bycatches and discards, impacts</p>



	<p>“know-how”, production processes, goods, services and organizational and operational skills.</p> <p>In the academic year 2021-2022, more than 500 incoming students from EU and extra-EU countries chose the University as their host in the framework of Erasmus+ individual mobility. Regarding the international projects, during 2020-2023, a total number of 33 projects were funded under Erasmus+ KA1, KA2, Jean Monnet and the European University Initiative. As regards the research and innovation projects funded in the framework of international, national and regional programmes within the 2014-2020 programming period, the achievements of the University of Palermo in figures are the following:</p> <p>48 Horizon 2020 projects, 7 projects funded under joint EU and national initiatives</p> <p>9 projects funded by the Directorates Justice and Migration and Home Affairs, 1 Health Programme</p> <p>86 research projects of national relevance (PRIN, SIR)</p> <p>over 40 projects funded from national funds</p> <p>22 projects funded under territorial cooperation programmes (10 Italy-Malta, 1 INTERREG MED, 8 Italy-Tunisia, 3 ENI CBC MED)</p> <p>13 LIFE+ projects</p> <p>68 ERASMUS projects under the three Key Actions, in addition to Jean Monnet and Sport. In the different Erasmus+ Actions, UNIPA has been involved both as coordinator (21 projects) and as a partner (47 projects). In particular,</p> <p>42 projects funded from the Sicilian Region within the ERDF 1 Excellence Department acknowledgment (Law - also confirmed in 2023).</p> <p>as well as other projects funded under different programmes such as FAMI, Italy-Central America as bilateral cooperation, from foundations, associations and global initiatives.</p> <p>The UNIPA Department of Earth and Marine Science (DISTEM) will lead the present proposal</p>	<p>on benthic communities habitats and coral reefs.</p>
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	<p>and thanks to the leadership of UNIPA experimental Animal Care and Welfare will be able to cover most marine aquaculture and ecological topics.</p> <p>Relevant infrastructure or equipment. Facilities are modern and large, being able to offer big opportunities to carry out research in many topics of marine science with a large array of mesocosms, equipment for field experiments (a large boat for coastal surveys) and lab analysis (from mass spectrometers to coulter counters, flow-cytometers, HPLC and biochemical and Immunological expert labs) and zebra fish facilities useful to accomplish teaching commitments.</p>	
<p>3. University of the Aegean (UAEGEAN) Greece</p>	<p>The University of the Aegean (UAEG) has been founded on six different islands in the Aegean Sea and includes 18 Departments. The Department of Geography in Mytilene, Lesvos Island, Greece, supports academic activities in the fields of earth system science, social-economic sciences and geographic information science. UAEG's partnership will more specifically include the Urban Geography Group of the Geography Department that focuses on the Mediterranean and European space and in Latin America. It follows critical geography perspectives of the urban and peri-urban space, contemporary urban changes, glocal (local-global) analyses of urban phenomena (like common goods and public space, urban sprawl, urban competition or solidarity, minority spaces, urban segregations), urban and environmental studies, cultural urban approaches and comparative studies of phenomena in different cities as well as urban movements.</p>	<p style="text-align: center;">Chaired</p> <p style="text-align: center;">Quality Assurance Committee (QAC)</p> <p>The activities of the Coastal Morphodynamics-Management and Marine Geology Group of the Department of Marine Sciences (DMS) focus on the study of the coastal zone, with its main aims being the education/training of undergraduate and postgraduate students and basic and applied research. The main research directions include morphology and sedimentology of the coastal and marine environment and their effective management (sediment dynamics and morphodynamics of the coastal zone on the basis of high frequency field observations and modeling, monitoring and modeling of the drainage basin hydrology and the transport of sediments and pollutants in the coastal environment, impacts of climate change and their management at the river basin scale and coastal zone. The nature of the coastal processes requires interdisciplinary approaches and cooperation with the other academic staff of the DMS and the Department of Geography as well as with scientists from academic institutions in Greece and abroad.</p>



<p>4. Arab Academy for Science, Technology and Maritime Transport (AASTMT) - Egypt</p>	<p>The Arab Academy for Science, Technology and Maritime Transport (AASTMT) is part of the Arab League. The AASTMT was established since 1972 providing numerous educational services to the people of the Arab World, ranging from middle/high school programs to undergrad/postgrad studies. The AASTMT campuses in the Egyptian cities of Alexandria, El-Alamein, Cairo, Port Said and Aswan have had many achievements in education, training, consultation, and research within the field of climate change and related subfields (maritime transport, engineering, environment, and management sciences) for more than 48 years now. Since its establishment, AASTMT has been involved in the various fields of education, training, scientific research, and community service. Being a multi-purpose, multi-task institution, AASTMT basically offers its services to students from the entire Arab world, as well as those from African countries. AASTMT undertakes teaching, training designed to qualify students in all fields of knowledge, including sciences, technology, and humanities. Currently more than 20,000 undergraduate and postgraduate students, and 1000 researchers work and study on the various campuses of AASTMT, located all over Egypt. AASTMT offers educational programs to serve the community of Alexandria, and other cities in Egypt. The programs enhance the skills of students in language, computing, secretarial work, aviation tickets reservation, marketing, management, maritime studies, and environment. The main purpose of these programs is to support the educational side in a way that guarantees the advancement of the level of student's qualifications to increase their chances of obtaining better jobs. Moreover, the educational activities of AASTMT extent to reach the cooperation with overseas universities either in form of MOU as AASTMT held agreement of cooperation with many international Universities such Dalian Maritime University -</p>	<p style="text-align: center;">Chaired Dissemination and impact committee (DAC)</p> <p>The 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015, provides a shared blueprint for peace and prosperity for people and the planet, now and into the future. At its heart are the 17 Sustainable Development Goals (SDGs), which are an urgent call for action by all countries - developed and developing - in a global partnership. They recognize that ending poverty and other deprivations must go hand-in-hand with strategies that improve health and education, reduce inequality, and spur economic growth – all while tackling climate change and working to preserve our oceans and forests. Sustainability has been at the heart of the Arab Academy for Science, Technology, and Maritime Transport "AASTMT" for a very long time. The Abu-Qir campus was founded in 1993 with a vast green area of 53 acres demonstrating our environmental commitment.</p> <p>On the human resources level, The AASTMT has a community of approximately 30,000 students, 1500 staff, and a huge number of alumni over 50 years. At The AASTMT, we commit to teaching values of tolerance, respect for human rights, and civil responsibility. We also believe in providing space for different views, allowing public attitudes to change and to mature building a space for dialogue, and reviving our faith in each other and in humanity at large. The sustainable development goals represent the highest ideals that humanity has set itself to attain and The AASTMT commits itself to such ideals as well as actively participating in their attainment. It has been increasingly recognized that universities have a critical role to play in advancing the UN Sustainable Development Goals in terms of teaching the many aspects of sustainable</p>
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	<p>7. Solar heater principles and analysis 8. Weather condition monitoring and data collection 9. Air quality analysis and monitoring.</p>	
<p>5. Alexandria University (AU) - Egypt</p>	<p>Alexandria University is one of the oldest and biggest universities in Egypt, since 1942. It is consisted of 24 faculties and institutes covering the majority of disciplines.</p> <p>AU has around 120,000 students and almost 30,000 employees and staff members. AU is an important partner in EU-funded projects from FP7 and Tempus to H2020 and Erasmus+ and the university has around 450 international agreements with other universities, institutes and entities.</p> <p>Because of its geographical location, on the Mediterranean Sea, AU has a unique, distinguished and multidisciplinary department in whole of Egyptian universities, Oceanography Department; where AU team members of the current project are affiliated. It has been found in 1948 and is concerned with multidisciplinary training, education and research in oceanography.</p> <p>The importance of the department has been increased a lot in the last few years especially after addressing the UN SDG 14 concerning life below water, hence, it becomes important now in Egypt to start working on the implementation of that goal and its tasks, especially that Egypt has a national strategy for the sustainable development for 2030.</p> <p>The Department give B.Sc., Diploma, M.Sc. and PhD degrees in the different disciplines of Marine Science. It has a unique M.Sc. programme in climate change and a diploma in coastal management.</p>	<p>A unifying framework for peace and prosperity for people and the planet, both now and in the future, is provided by the 2030 Agenda for Sustainable Development, which was accepted by all United Nations Member States in 2015. The 17 Sustainable Development Goals (SDGs), which are an urgent call to action for all nations - developed and developing-in a global partnership, are at the center of it. They understand that combating poverty and other forms of deprivation requires policies that enhance health and education, lessen inequality, and promote economic growth, combat climate change, and fight to protect our oceans and forests. AU aims to support Egyptian vision 2030 about SGD goals 4 (quality education), 13 (climate change actions) and 14 (management of marine and coastal structure) through initiating the master program related to blue economy. So, AU works for assuring all the requirements to balance the sustainable coastal zones management with social and economic needs through participating in BLUE-ERA.</p> <p>AU will participate in work packages together with consortium partners, including in the developing of master's degree study programme, take programme advertising and marketing functions, and present the program to stakeholders.,</p> <ul style="list-style-type: none"> - in the development of the content of the different courses as outlined within the content development plan; including compilation of the general content of the courses, the provision of the respective slides, and the compilation of a list of text books as well as recently published articles, - with the "train the trainer"-activities,



		<ul style="list-style-type: none"> - in quality control activities, - in dissemination activities, etc. - in management activities.
6. HURGHADA Environmental Protection and Conservation Association (HEPCA)		ASSOCIATED PARTNER FOR THE EGYPTIAN UNIVERSITIES (AASTMT and AU)
7. University of Sousse (US) - Tunisia	<p>Established in 1986, the University of Sousse is now a leading Tunisian public Higher Education organization bringing together 17 faculties, institutes, high schools, in a wide array of subjects ranging from exact to human sciences, from accounting to anthropology, and from marketing to medicine. The University of Sousse counts over 28608 students, 2175 academic staffs 24 Laboratories, 6 Research units, 05 Doctoral Schools, and 919 administrative staffs.</p> <p>In a dynamic and sustained scientific endeavor, the university has over the last few years promoted indexed research, certified training, and accredited education in its institutions. The University of Sousse has also been developing a vibrant international profile of partnership and cooperation with UN organizations, European agencies, civil society associations, and HEIs from all over the world.</p> <p>It took part in Tempus with 25 projects, and it is currently actively involved in Erasmus+ KA1 program with 43 signed inter-institutional agreements and Erasmus + KA2 capacity building program with 28 accepted projects.</p> <p>The University of Sousse has been recently accredited to be an autonomous scientific and technological public organization and therefore accreditation is seen as an ongoing process should it's all other 17 establishments follow. An eminent change over last three years has been taken into place to reply to globalization and</p>	<p style="text-align: center;">Chaired Monitoring and Control committee (MCC)</p> <p>Through the PAQ Project (Projet d'appui à la qualité) which put into action the axes of modernization, quality assurance and certification processes, the University of Sousse succeeded to renovate its infrastructure, create new services, and provided the adequate trainings for the trainers. Moreover, various cells or Units were set up at the University of Sousse to boost competencies, rise social awareness and mutual collaboration between all its establishments. For instance, Gender Cell, Quality Cell, Communication Cell, Mediation Cell, Research and innovation Cell, Innovative & digital pedagogy Cell, Project Management Office (PMO), & ranking Cell.</p> <p>An eminent planning project is put into action in order to enhance the ranking processes of the University of Sousse, develop a new spirit of collaboration with the socio-economic environment, develop competencies of its academic and administrative staff, create gender equity between its members (students, staffs, experts, researchers, head of departments, dean and directors...). During the previous academic year, successive events took place under the patronage of the University of Sousse in order to help students participate with innovative ideas and create their own start-up's. The year 2021 was called a year of challenges and entrepreneurship. Bilateral</p>



	<p>institutional internationalization in terms of :</p> <ul style="list-style-type: none"> • International linkages through connections with universities • Study abroad • Teaching and working abroad • Study by international students and scholars in our country • Faculty exchange • Curricular initiatives • Co-curricular activities • International visitors • Foreign language training • Corporate/university partnerships • Campus/community interaction projects • International development projects 	<p>agreement is signed with cluster maritime Tunisia in order to promote axes of collaboration regarding blue economy. Also, the university of sousse joined the International Foundation "Towards a Mediterranean Sea of Knowledge and Mobility". The added value of the University of Sousse in this Project will imminently be through trainings, internships and putting forwarding an international networking plan in relation to 17 sustainable development goals.</p>
<p>8. University of Monastir (UM) - Tunisia</p>	<p>The University of Monastir or UM is a Tunisian multidisciplinary university with its own financial and administrative autonomy located in Monastir, Tunisia. It was founded in 2004 following the reform of the university higher education system and is organized in 5 Faculties, 2 graduate schools and 9 institutes. Its main activities are related to higher education, learning and research in a broad sense, with the aim of decentralizing services, supervising and improving the profitability of the higher education system. With approximately 27,500 students, 2,044 lecturers and 758 administrative and support staff, the University of Monastir offers a wide range of undergraduate and postgraduate courses, with an average graduate count of approximately 4,700 per year. It is ranked by U.S. News & World Report as 18th in the 2016 Arab Universities Regional Ranking. According to UniRank, the university ranks third in Tunisia. In 2020, the university ranked 301-400 globally and the first nationally in the "Energy Science & Engineering" field according to the Shanghai Ranking's Global Ranking of Academic Subjects 2020.</p>	<p>The University of Monastir stands in the heart of the coastal zone of Tunisia where tourism, aquaculture, naval constructions and maritime activities are the most pronounced. Monastir City Hosts also one branch of the National Institute of Marine Sciences (INSTM), having wild collaborations with institutions under the patronage of The University of Monastir. The University of Monastir succeeded to updated its infrastructure, create new services, and provided the adequate trainings for the trainers thanks to the PAQ Project (Projet d'appui à la qualité) which put into action the axes of modernization, quality assurance and certification processes. Actually, Monastir University created and promoted , Gender Cell, Quality Cell, Communication Cell, Mediation Cell, Research and innovation Cell, Innovative & digital pedagogy Cell, Project Management Office (PMO), & ranking Cell for a better visibility of the University. During the last academic year, many events took place under the patronage of the University of Monastir in order to promote students participate with innovative ideas and create their own start-up's. Bilateral agreement is signed with cluster maritime Tunisia in order to promote axes of collaboration regarding blue economy. Also, the university of Monastir joined the International Foundation "Towards a Mediterranean Sea of</p>



		Knowledge and Mobility". At the Higher Institute of Biotechnology relevant to the University of Monastir we are hosting: 1/Co-constructed Professional Master in Marine Biotechnology and Entrepreneurship 2/Research Master in Genetics, Biological and Physiological Diversity. We also have as supporting research structure "Genetics, Biodiversity and Valorization of Bioresources (GBVB)" directed by Pr Imed Messaoudi. The added value of the University of Monastir in this Project will be through trainings, internships and putting forward an international networking plan.
9. CLUSTER MARITIME TUNISIEN- TUNISIA		ASSOCIATED PARTNER FOR THE TUNISIAN UNIVERSITIES (US and UM)
10. University of Jordan (JU) - Jordan	<p>The school of Basic and Marine Science (SBMS), University of Jordan/Aqaba is home for three departments in Marine Biology, Coastal Environment and Mathematics. The SBMS offers three study programs including two Bachelors in General Biology and Mathematics and one Masters in Marine Sciences.</p> <p>The SBMS has a team of competent and highly qualified faculty members, lecturers, lab supervisors, technicians and administrative staff who serve students in the two faculties, SBMS and the school of Nursing, in addition to the general university courses offered to all other students of the university.</p> <p>The SBMS provides all the needed infrastructure and resources for students' development such as the teaching and research laboratories, which help students in getting the best practice and applications of the knowledge gained in theory courses. The research labs are hub for hosting many nationally and internationally funded research projects, which provide nursing grounds for creating junior researchers from the students who will become leading</p>	<p>Programs Commencing a new B.Sc. program in general mathematics.</p> <p>Commencing a new BSc. program in nursing.</p> <p>Commencing a new B.Sc. program in law.</p> <p>Develop a short term (diploma) programs that tackle the issue of coastal zone and Scuba dive to serve both scientific community and tourism.</p> <p>Externally funded research projects</p> <p>Implementing a recent research project entitled 'Plastic Busters CAP' funded by ENI CBCMED (2022-2024).</p> <p>Implementing a recent research project entitled 'Developing Strategies to Minimize the Impacts of New Desalination Plant on the Gulf of Aqaba Ecosystem' funded by USAID (2021-2023).</p> <p>Implementing a recent research project entitled 'Measuring the Response of Coral and sea grass to the Combined Effect of Global and Local Environmental Change in the Gulf of Aqaba' funded by USAID (2021-2023).</p>



	<p>researchers for the development of our beloved Kingdom of Jordan.</p> <p>The SBMS has applied e-learning since its establishment and has recently applied blended and project-based learning approaches following the recent development in the teaching process at Jordan University.</p> <p>Faculty members encourage team work and self-learning approaches in all courses offered in SBMS in order to develop creativity in the way of thinking for all the graduates. Indeed, the SBMS seeks to produce best qualified and competent graduates who are self-dependent and reliable persons in the labor market.</p>	<p>Finalizing Implementing a research project entitled 'Evaluating Sea grass Ecosystem Threats and Functions in the Gulf of Aqaba to Improve Regional Marine Conservation' funded by USAID (2021-2023).</p> <p>Faculty members and students recognitions</p> <p>Honoring a number of SBMS faculty members within the celebrations of the University of Jordan/ Aqaba branch, at the 100 years anniversary of the state of Jordan.</p> <p>Al Jazeera TV report with Prof. Fuad Al-Horani (School of Basic and Marine Sciences the University of Jordan-Aqaba) about the artificial coral reef project.</p> <p>Students of the School of Basic and Marine Sciences launch a "Youth Initiative for Health".</p>
<p>11. Al Albayt University (AABU) - Jordan</p>	<p>Founded in 1993, Al al-Bayt University is a non-profit public higher education institution located in the suburban setting of the large town of Mafrq (population range of 10,000-49,999 inhabitants). Officially recognized by the Ministry of Higher Education and Scientific Research of Jordan, Al al-Bayt University (AABU) is a large (uniRank enrollment range: 15,000-19,999 students) coeducational Jordanian higher education institution. Al al-Bayt University (AABU) offers courses and programs leading to officially recognized higher education degrees such as pre-bachelor degrees (certificates, diplomas, associate or foundation), bachelor's degrees, master's degrees, and doctorate degrees in several areas of study. See the uniRank degree levels and areas of study matrix below for further details. This 29-year-old Jordanian higher-education institution has a selective admission policy based on students' past academic records and grades. International students are welcome to apply for enrollment. AABU also provides several</p>	<p>AL al-Bayt University, covered by the Jordan Ministry of Higher Education and Scientific Research, hosts the following academic programs:</p> <p>Undergraduate Programs:</p> <ol style="list-style-type: none"> 1- Bachelor degree (BS.c) in Applied Earth and Environmental Sciences. The study plan of this program includes a course in the field of oceanography. 2- Bachelor degree in Geographical Information System and Remote Sensing. <p>Postgraduate Programs:</p> <ol style="list-style-type: none"> 1- Master degree (MS.c) in Applied Geology. The study plan of this program includes a course in the field of oceanography 2- Master degree (MS.c) in Water Resources and Environment. 3- Master degree (MS.c) in Geographical Information Sciences.



	<p>academic and non-academic facilities and services to students such as the library, housing, sports facilities, financial aid or scholarships, studying abroad and exchange programs, and administrative services. It recently entered the Shanghai World Ranking as nursing ranked 204 globally.</p> <p>One of the most important faculties in University is Earth and Environmental Sciences Faculty (IEEF) was established in 2001 to conduct researches in the field of water, environment and earth sciences and for preparation a qualified students and specialists having scientific capabilities in various fields of earth sciences and environments. The IEEF offer and grant the scientific degrees in the following academic programs:</p> <p>Undergraduate Programs:</p> <p>1- Bachelor degree (BS.c) in Applied Earth and Environmental Sciences</p> <p>2- Bachelor degree in Geographical Information System and Remote Sensing</p> <p>Graduated Programs:</p> <p>1- Master degree (MS.c) in Applied Geology</p> <p>2- Master degree (MS.c) in Water Resources and Environment</p> <p>3- Master degree (MS.c) in Geographical Information Sciences</p>	<p>In addition to IEEF, AABU includes an ISO-certified Water and Energy Research Centre that offers most of the required analyses in the studies related to water and the environment. Also, Al al-Bayt University contains an Environment, Water, and Energy Research Centre. Additionally, the Faculty of Engineering at Al al-Bayt University has environmental and hydrology labs</p>
<p align="center">12. THE ROYAL MARINE CONSERVATION SOCIETY OF JORDAN (JREDS) - JORDAN</p>	<p align="center">ASSOCIATED PARTNER FOR THE JORDANIAN UNIVERSITIES</p> <p align="center">(JU and AABU)</p>	

2.2.2 Consortium management and decision-making

Consortium management and decision-making (if applicable)



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

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

General, the administration structure and decision procedures are designed to accommodate the project's 36-month timeframe, a small consortium, and well-defined responsibilities. BLUE-ERA management will be based on agile, reactive and simplified governance involving all partners. Management will be based on the following procedures to ensure quality, transparency and sustainability.

Project management			
composes from Main Committees/ Subcommittees			
Overall deciding body			
Main committee	Subcommittees		
Steering Committee (SC) Chaired by University of the Littoral Opal Coast (ULCO) - FRANCE	Quality Assurance committee (QAC) Chaired by University of the Aegean (UAEGEAN) GREECE	Dissemination and impact committee (DAC) Chaired by Arab Academy for Science, Technology & Maritime Transport (AASTMT) - EGYPT	Monitoring and Control committee (MCC) Chaired by University of Sousse (US) – Tunisia
Oversight and the final decision-making and resolution body	The bulk of the work concerning quality	The bulk of work concerning dissemination and impact	The bulk of work concerning operations and activities
The core structure will be used for optimal project coordination and management.			
• Project Coordinator (PC) Chaired by Universidad de estudios de Palermo (UNIPA) - ITALY		Supporting the work of (SC), (QAC), (DAC), (MCC)	
• Work Packages Supreme Leader (WPSL) Chaired by University of the Littoral Opal Coast (ULCO) - FRANCE			

1- Steering Committee (SC)

This is the consortium's main decision-making body; it will be led by the coordinator from ULCO, and each beneficiary institution will have one main (and one substitute) member. This will enable equitable involvement and decision-making in the project. The SC will manage any important project changes, such as schedules, deliverables, budget, agreement amendments, and WP leaders. It covers all aspects of project management and dispute resolution. The SC also approves all important project deliverables.

2- Quality Assurance committee (QAC)

This committee will be in charge of quality assurance and improvement. It will supervise the development of the quality plan and track progress toward the goals using quantitative monitoring and assessment criteria. It will be critical in dealing with the body and recommending changes and corrections. To guarantee diversified representation, each partner will present at least one representative to the QAC.

3- Dissemination and Impact Committee (DAC)

This committee will handle all issues and concerns regarding dissemination, reaching the appropriate audience, and engaging with the labour market. The committee will investigate the relationship between the various distribution initiatives and their impact and make recommendations for changes. Each of the beneficiary universities will have at least one representative.

4- Monitoring and Control committee (MCC)

The monitoring committee will assess operations against the stated metrics of project partners and track project success against the plans created. The control function is to find deviations in performance, etc. To guarantee diversified representation, each partner will present at least one representative to the MCC.

5- Project Coordinator (PC):

UNIPA will nominate a project manager (just to reduce burdens) who will oversee the day-to-day activities and operations of the project, monitor its technical and financial condition, and communicate with the funding agency. It should be noted that the BLUE-ERA coordinator and project manager will be members of the SC and will be directly involved in all aspects of the project. This will guarantee that there is transparent, effective, and credible communication among the funding agency (the European Commission-**EC**) and partner universities' consortium.

5.1. Project Coordinator /Manager:

The project manager reports to and collaborates closely with the coordinator. It should be noted that the coordinator and project manager are regarded as a single entity. The **PC** is in the front line of communication among the partners and the **EC**. The coordinator's or project manager's managerial responsibilities include the following:

- Chairing meetings as needed, drafting meeting minutes, and monitoring the execution of decisions made.
- Serving as a liaison between the SC and the EC to ensure bidirectional information flow between the EC-consortium.
- Monitoring the project's scientific, operational, budgetary, and administrative progress.
- Monitoring the project partners' compliance with their duties.
- Gathering, evaluating, and submitting to the EC progress reports and other deliverables.
- Monitoring progress on a regular basis by holding meetings with WP leaders and partner officials.
- Supporting the SC in the decision-making process,
- Keeping track of project documentation/ Archiving BLUE-ERA documents.

6- Work Packages Supreme Leader (WPSL)

WPSL is in charge of monitoring the progress of each work package, accurate follow-up of work packages reports. Attending meetings on behalf of the work package leader if necessary. Where **WP** Leaders will take decisions on day-to-day affairs primarily on the content and direction of their WP, within the constraints of the planning process, and are ultimately accountable for the accomplishment of their WP's responsibilities and deliverables. They will have the authority to resolve delays and obstacles inside their WP, but only in collaboration with other partners involved in their WP and the WP Leaders of connected WPs. They will also carry out decisions made by the SC and report to the Coordinator. Among their tasks are: creating an implementation strategy for the WP's actions for the next phase; Helping the coordinator with the preparation of associated data and deliverables.

Task Leaders: Each WP is likewise subdivided into tasks, each with its own leader (as spelled out in the proposal). The task leaders are accountable for the smooth operation and execution of their specified job. They will report to their relevant WP leader on progress and any challenges that arise. Task leaders will submit feedback and documentation (a brief report) on their completed tasks to the WP leader, who will include this information into the formal deliverables of the individual WPs.

Management procedures

Consortium Meetings: To guarantee strict monitoring of progress, up-to-date information, financial burdens, and schedule exacts for sharp performance, the quality performance report will be stated at every project meeting. Six physical coordination meetings are planned for the project: a kick-off meeting, four progress meetings, and a concluding meeting. These will seek to encourage excellent communication among

partners and ensure that all activities and efforts are aligned with the goals. To reduce travel, face-to-face meetings are merged as much as feasible. To reduce the environmental effect, efforts will be made to use electronic communication and integrate consortium meetings with training and dissemination events. The coordinator shall arrange formal project meetings with at least one calendar months' notice and a well-defined agenda.

Decision-making

In these committees (beneficiaries), permanent members will make decisions. The committees can seek the attendance of associated partners, external experts, and so on, but they will not have a voice in decision-making. The decision-making procedure will be straightforward: following a meeting in which each member is permitted to voice his or her view, the best ideas are selected regardless of who originated them. To guarantee unity and that all views are heard and considered, there will be a potential and expectation that all decisions be unanimous. If resolution cannot be reached, a simple majority vote will be held, with each present partner having one vote. Meeting minutes will be used to make decisions, which will be carefully documented.

Communication (Internal):

Communication among partners is critical because it ensures the smooth flow and execution of project operations and fosters collaboration among partners. As communication channels, Google Drive file sharing with restricted access to project partners will be used, Google meet for online meetings, emails, and mobile phone communications.

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3. IMPACT

3.1 Impact and ambition

Impact and ambition

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

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

Of course, the main objective of the BLUE-ERA, which may be close to being achieved, is the establishment of a master's degree programme in the sustainable blue economy. The ultimate/absolute objective of BLUE-ERA is to connect technology and entrepreneurship to local needs, create jobs in the blue economy, and instil the highest value of being "ocean keepers" and lovers of the ocean and sea in our descendants.

The specific objectives highlight many points; among them, though not all mentioned, are the modernization of thinking about oceans and their resources and the import of expertise and new technology from the developed countries to the developing countries, delivering courses that integrate operational and strategic abilities, technology, and innovation with the local needs, preparing students to tackle real-world challenges in partner nations.

BLUE-ERA will enable the development of exchanges of knowledge, expertise and best practice tools for professional and entrepreneurial integration in order to promote the employability and professionalization of students and thus improve their insertion rate.

The project's potential benefits are:

- 1- Higher Education Institutes such as universities in Tunisia, Egypt, and Jordan: Novel curricula will be innovated with the collaboration of European partners, including mainly topics that are specified in the sustainable blue economy and others that are relevant in the local and international labour market regarding the blue economy. The master's degree will be accredited in Tunisia by the minister of higher education and scientific research, in Egypt by the Supreme Council of Universities, and in Jordan by the Ministry of Higher Education and Scientific Research. The university authorities have generally approved. Further, creating a sustained and long-term development in educational quality and making universities stand out at the national level.
- 2- 72 Students who benefit from the new master's degree will make graduates more appealing and competent on the labour market, increasing their employability and shortening the time it takes to get the first job.



Academic staff (Professors, Researchers and Trainers) who will gain knowledge about new approach of science "Sustainable blue economy" and the teaching methodologies, to develop internationally recognized competence-based curriculum and syllabi thanks to the close collaboration with the European colleagues and the continuous cooperation with the local companies and enterprises.

- 1- Stakeholders (companies, associations, NGOs, and industries) at the local, regional, multinational, and international levels will benefit from consultations from the universities. Also, the chance to tackle actual problems through partnerships with universities.
- 2- The society that will profit from the country's acceleration of the conversion towards a sustainable blue economy.

Palpable impacts on BLUE-ERA target groups are summarized in the tables below, where measures and indicators to monitor and evaluate their echoes are considered in the short, medium, and long terms.

SHORT-TERM IMPACTS (PROJECT LIFETIME)				
No.	Project results	Who are the target groups?	How will the target groups benefit concretely from the project?	What would change for them? [Qualitative and quantitative indicators]
1	New initiative through the project acronym: BLUE-ERA	All those who care about the ocean's health	They will be the pioneers for a BLUE-ERA	Changing human behaviours towards dealing with the ocean
2	Enhanced skills in the planning, involvement, and execution of EU projects	BLUE-ERA's nine partners	Regulation and grant management training for ERASMUS +	New submissions in ERASMUS + calls
3	Importing and updating new academic curricula	BLUE-ERA's six partners	Accreditation of the master degree and curricula	+8 novel modules
4	Build up a cooperation system in knowledge exchange for resource management and international trust in order to enhance networking among higher education and research institutions with European members on the sustainable blue economy.	Professors Researchers Students	Participation in a summer school titled "BLUE-ERA and OCEAN KEEPERS" on the sustainable blue economy in one EU partner country where (Focused information about the sustainable blue economy) Participation in workshops on the applications of sustainable blue economy in the labour market Training of non-EU teaching staff on the new courses during	At least 35 professors, researchers and students will get involved
5	Implementation of a novel educational technique for	Professors Researchers	Creating a Human Resource Capacity Building Plan	At least 57 professors/ researchers have

	teaching and learning			embraced the new instructional style
6	Interdisciplinary cooperation	Professors Researchers Students Decision makers Stakeholders	Through understanding of the nature of the problem, needs assessment though transparent data analyses of labour market and though an integrative methodological approach linking the education and the labour market.	Considerable number of the collaborations among the target groups
7	Graduation of academic competencies in the sustainable blue economy.	Professors Researchers Students	Getting involved in deep in different disciplines and find linking among them	At least +12 students per university will graduated from the first intake
8	Updating and establishing laboratories serve the research needs of the blue economy.	Professors Researchers Technicians Students	New laboratory design and installation	Increased proficiency in the use of novel labs 6 blue economy labs installed Technician training
9	Strengthen international scientific collaboration opportunities.	Professors, researchers, students	Planning a joint research effort and using new linked laboratories	Opportunities for international supervision of master's theses among the BLUE-ERA universities
MEDIUM - TERM IMPACTS				
No.	Project results	Who are the target groups?	How will the target groups benefit concretely from the project?	What would change for them? [Qualitative and quantitative indicators]
1	Modernization of academia and the research sector	University, research centers	Utilization of digital tools/instruments	Coordinated multi-national researches
2	Adopting new teaching and learning process	University, research centers, professors, researchers students	updated skills in the use of new instruments/software, as well as the problem-solving methodology More marketable skills in the labour market Greater knowledge accessibility	University upgrading, updated standards, and creative programmes and courses



3	University relevance in the labour market will improve	University Labour market Students	Enhance the employability of students Student satisfaction will reinforce	Curriculum and programme modernization Additional funding for research and education
4	International collaboration	Universities, Research centres, stakeholders	Increased financing	+ 5% (annual) of participation in ERASMUS+ calls, both as partner and applicant
5	Strengthening the Scientific Network between European and Mediterranean Universities (Partners from Region 3 countries)	Universities, Research Centres	Scientific information and findings are shared. Student and staff mobility Access to external financial sponsorship and increased visibility	Considerable number of joint scientific publications
6	Institutional long-term vision and internationalization	Professors, administrative persons	Direct participation in international activities and partnerships, such as financial management	Improved abilities in international project management
7	Engagement with the corporate world and research on an ongoing basis	University Labour market	Topics for research that are novel Enhanced competitiveness	New items and services , an increase in the number of publications increased funding and laboratories
LONG-TERM IMPACTS				
No.	Project results	Who are the target groups?	How will the target groups benefit concretely from the project?	What would change for them? [Qualitative and quantitative indicators]
1	Increase awareness of our needs for the blue economy.	Society	More experts in technologies for a sustainable blue economy	Acceleration of new technology uptake and discovery of innovative solutions for local needs
2	Expand access to tools and competencies.	Society	Increase product, service, process, and expert availability	+5% annual growing of employability in the sector
3	Induction of new thinking ways	Society	Excellences and qualified professionals are readily available in	Graduates have a higher employability.

			the academic and corporate worlds.	Improved research quality
4	Strengthening the International Scientific Network	University, Research centres	Upgrading worldwide rankings of universities in Tunisia, Egypt, and Jordan Increased attractiveness for students, and sponsorships	Increase the weight of graduates among their colleagues in the developed countries Putting graduates on an equal footing with graduates in the developed world
5	Engage Tunisia, Egypt, and Jordan on the world map of the countries which develop and apply the concept of the blue economy.	Countries Tunisia, Egypt, Jordan	Upgrading worldwide rankings of Tunisia, Egypt, and Jordan in scientific research and innovators	Growing up new generations of ocean keepers.

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3.2 Communication, dissemination and visibility

Communication, dissemination and visibility of funding

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

Describe how the visibility of EU funding will be ensured.

The dissemination efforts will adhere to the following procedures and best practices for effective dissemination:

- To reach the desired audiences, various dissemination methods will be used, such as written reports, emails, newsletters, online site and social media postings, and so on. Existing facilities, relationships, and direct connections within the project consortium will be utilised to achieve the goal.
- Online courses, flyers, social media, Visits to secondary school, Information workshops, info days and open days for students community.
- Messages, platforms, and ways will be tailored to the target audience's requirements. Scientific publications and conferences, for example, will be considerably more appealing to the scientific community, while inventions and commercialization potential will be much more appealing to the industrial/entrepreneurial sectors.
- The project platforms will include public findings and reports, which will be available to anyone who may profit from them.
- Handbook of best practice approaches and quality control measures
- Reports and outcomes will be properly evaluated by all project partners before being disseminated or published.
- Participants who engage in project activities, such as public surveys or expert interviews, will be informed of the project results.

Logistics initiatives, particularly the early spread of information to raise project awareness, will be coordinated to support the project's goals

CORE DISSEMINATION AND TARGET AUDIENCE

BLUE-ERA focuses on a novel world concern and a variety of maritime industry applications; hence, it has a varied primary target audience and stakeholder group, as seen below:

Academic community	<ul style="list-style-type: none"> The BLUE-ERA academic and scientific community (students, researchers, and professors) who may use innovative methodologies and integrated knowledge in BLUE-ERA in their education, research, and teaching. Additionally, corporate academic entities interested in how research and answers to real-world challenges might be applied. Current/Upcoming EU and national (for all partners) projects that may have a synergistic relationship with BLUE-ERA.
Industrial Stakeholders	<ul style="list-style-type: none"> Industries and organisations interested in sustainable blue economy applications, etc., that might help identify intriguing case studies and are also interested in the ensuing unique solution. Furthermore, this industry represents a sizable portion of the labour market that is interested in hiring BLUE ERA's graduates.
Policy Makers & Regulators Ministries & state institutions	Different ministries in Tunisia, Egypt, and Jordan have national bodies, scientific communities, non-profit organisations, government programs, and committees for expanding education and eliminating unemployment.
General Public	This is an unprofessional target group, which comprises the general public and municipalities in Tunisia, Egypt, and Jordan.

To stay up with the newest changes, the communication and dissemination efforts will be monitored regularly. The distribution strategy will include qualitative and quantitative metrics as well as goals.

<i>Communication and dissemination activities and means</i>	<i>Target groups (To whom)</i>	<i>Format</i>	<i>How many</i>	<i>Indicators to measure the effectiveness of the means of communication</i>
A Free and Open Academic Platform	Academic community	Platforms	+3	Number of registered entities to the platform
Communication and Dissemination Plan	Steering Committee	Pdf document	1	
Website and social media	ALL	Platforms Social media (Facebook, Twitter, Instagram) Existing tools in beneficiary universities (social media and network, mailing lists, internal	+3	Regular engagement progress reports (e.g., every 6 months) that demonstrate the significant trend (at least 5% annual growth)



		journals, radio, etc.)		
Promotional items	ALL	Templates, banners, project brochures, flyers, quarterly bulletins, stakeholder forums and online conversations, monthly podcast		The first year's involvement will be measured, and a growth rate of more than 5% each year is expected.
Final Conference, presentations of innovation	ALL partners, EU commission will also invite	Conference, public event	One final conference at the AASTMT, EGYPT	Total attendance of at least 100 people from all relevant groups.

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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?

BLUE-ERA action plan in short- to medium-term and long-term capacity building procedures that improve staff/student and group mobility of organisations or environments in order to achieve a paradigm shift in higher education in relation to related blue economy disciplines. BLUE-ERA activities and outcomes will literally advance to modernize curricula and research methods, shape north-south collaborations, promote entrepreneur capacity; strengthen the bridge between academia and the labor market, launch new market prospects, encourage competitiveness, and grow start-ups.

To maximize the long-term effect of BLUE-ERA, the Project Coordinator (PC), in concert with all partners, will pursue activities that provide any support for post-project finance to set up collaborative training (i.e. double degree) and research projects between partners and the establishment of Master and doctoral thesis co-supervision in the field of the blue economy. One of the most difficult aspects of maintaining BLUE-ERA is ensuring financial and academic sustainability at a time when funding is becoming more competitive. A funding special committee would be organized to focus on ensuring the project's long-term viability. The committee will be challenged to discover methods to make the BLUE-ERA more viable while being open to any institution or organization that demonstrates a need for knowledge in order to transition to the "blue economy."

BLUE-ERA partners can significantly increase the project's exposure and success. Partnerships need regular and clear dialogue, trust, dependability, and awareness. All participants of a transactional partnership must freely disclose facts relevant to the agreement in order to maintain the relationship. Communication should be more frequent and broadened to build a sense of trust and reliability, which helps to increase the agreement's durability.

BLUE-ERA seeks to the conversion towards the blue economy and sustain the marine resources. It will graduate the next generations of ocean keepers for Tunisia, Egypt, and Jordan will ensure the linkage between academia and the labor market.

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

4.1 Work plan

Work plan

Provide a brief description of the overall structure of the work plan (list of work packages or graphical presentation (Pert chart or similar)).

The project lasts 36 months and it is structured into six work packages (WP) with the leaders shown in bold: WP1. Management, financial and evaluation framework (ULCO); WP2.

Analysis, development and MSc. recognition (UM); WP3.Sustainable Blue Economy in the local and global labour markets (JU); WP4.Go-live: program implementation (AU);

WP5.Interconnected and international labs (UNIPA); WP6.Impact and Dissemination (AASTMT). Each WP has quantifiable results and outcomes, and it is directed by one of the consortium beneficiaries.

This leader's responsibility is to oversee the work being done inside the WP as well as to engage with the other WPs. To ensure that all project objectives are completed on schedule, the work must be divided into manageable, actionable chunks. This is the general strategy of the work plan. Moreover, this guarantees that the desired effect is realized. The work schedule is in line with the Logical Framework Matrix (LFM).

Increased capacity and the transfer of European expertise to partner nations are two of the Blue-Key ERA's objectives. As a result, efforts are being made to place Egyptian, Tunisian, and Jordanian universities in leading positions under the guidance of European institutions. Enhancing collaboration amongst beneficiaries is one of the project's major sustainability-related objectives; therefore, efforts are made to embrace beneficiaries and include them in the project's work packages. Furthermore, the success of each work package will not be determined solely by its own merit; rather, it will be determined by how they cooperate and work together, serving each other. Transfer this knowledge to the consortium's young researchers as well.

The work plan is implemented through the LFM, which gives a brief overview of the work packages, leaders and tasks.

LOGICAL FRAMEWORK (LFM)	WORK PACKAGES SUPREME LEADER (WPSL): ULCO																										
	WP (1)			WP (2)			WP (3)		WP (4)			WP (5)		WP (6)													
	Management, financial and evaluation framework			Analysis, development and MSC. recognition			Sustainable Blue Economy in the local and global labour markets		Go-live: program implementation			Interconnected and international labs		Impact and Dissemination													
	WPL: ULCO			WPL: UM			WPL: JU		WPL: AU			WPL: UNIPA		WPL: AASTMT													
	IL: ULCO	IL: ULCO	IL: ULCO	IL: ULCO	IL: ULCO	IL: UM	IL: UM	TL: JU	IL: AU	AASTMT	L: ULCO	TL: AU	L: ULCO	TL: UM	L: AABU	TL: US	TL: JU	L: AABU	L: UNIPA	AASTMT	AASTMT	L: ULCO	AASTMT	TL: UM	AASTMT		
	Management scheme and operation including subcommittees	Financial Management and costs reporting.	Coordination activities	Project technical reporting, monitoring and control.	Quality Assurance and control	Survey about blue-economy-related curricula and assessment of these and existing curricula	Preparation, development and upgrading of new curricula	Preparation of a new bunch of free elective modules	Approval and accreditation request for the establishment of the master sustainable blue economy	Database, information sharing strategy, as well as networking	Collaboration between academia and industry	Workshops on the use of the blue economy in industries and the labour market	New learning technique and innovative educational approach	Creation of novel instructional materials	Training for teaching staff and students.	The first intake is starting and the first semester is running	Case studies are being created.	Designing laboratories	Tendering procedure	Purchasing and setting up. The laboratories are up and running.	Convergence and collaborative research strategies and subjects	Creating a Communication Plan	Creating a Dissemination and Sustainability Plan	Papers and digital promotional materials are examples of primary teaching materials.	Inspirational blue economy lectures with academics etc.	Social activities	Final conference and dissemination event

4.2 Work packages, activities, resources and timing

WORK PACKAGES

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 normally 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 consistence 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, in-kind contributions.

Note:

In-kind contributions: In-kind contributions for free are cost-neutral, i.e. cannot be declared as 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 they are 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 to 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 which are submitted to show project progress (any format). Refer only to major outputs. Do not include minor sub-items, internal working papers, meeting minutes, etc. It is recommended to limit the number of deliverables to max 10-15 for the entire project. You may be asked to further reduce the number during grant preparation.

For deliverables such as meetings, events, seminars, trainings, 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: Management, financial and evaluation framework

Duration:	M1- M36	Lead Beneficiary:	ULCO
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Objectives

The overall objective of WP1 is to emphasise the BLEU-ERA management approach with respect to project coordination actions, financial issues, technical reporting, quality assurance, monitoring and control, and sustainability. Furthermore, well-defined subcommittees and roles aid in the smooth operation of the management process. The specific objectives are as follows:

- Coordination of the project consortium, which is made up of project partners who are functioning on interdependent tasks.

- Execution of an efficient cost and financial reporting system
- Assuring the right quality of procedures and outcomes
- Maintain strong communication with project beneficiaries as well as the associated partners.
- Coordination of the issuing of both financial and technical interim and final reports
 - • Guarantee a sustainable strategy and the long-term viability of the outcomes

Activities and division of work (WP description)

Task No (continuous numbering linked to WP)	Task Name	Description	Participants		In-kind Contributions and Subcontracting (Yes/No and which)
			Name	Role (COO, BEN, AE, AP, OTHER)	
T1.1	Management scheme and operation including subcommittees.	<p>Task.1.1 will establish the management entity and decision-making procedures that will be included in detail in the Partnership Agreement (PA). ULCO makes sure procedures are followed and objectives are met within the given deadlines. ULCO takes into account the Work Packages Supreme Leaders who govern WP leaders and also selects each WP leader. ULCO is also in charge of forming subcommittees.</p> <p>Consortium meetings will be launched through this task, and the project will begin with the kick-off meeting to form the right framework of cooperation.</p>	ULCO	COO	NO
T1.2	Financial Management and costs reporting.	<p>Task 1.2 states that progress, cost and financial statement reports. ULCO verifies that project partners understand their commitments and that the reporting process is well-organized and coordinated. According to EACEA templates, a specific intranet space will be designed to help partners with the usage of the relevant forms and to enable submission by uploading material in their designated virtual space.</p>	ULCO	COO	no

T1.3	Coordination activities.	Task 1.3 states that UNIPA chaired the Project Coordinator (PC), UNIPA will gather information from partners, oversee the completion of interim and final reports, and closely collaborate with management and guidelines to improve project goals. Additionally, dealing with any deviations and necessary corrective steps.	ULCO ALL	COO BEN,	NO
T1.4	Project technical reporting, monitoring and control.	Task 1.4 states that US chairs the monitoring and control committee, where the monitoring committee will create a monitoring plan and a bunch of obligations for the monitoring operations. The monitoring will take the form of a practical tool to assist project management and the entire consortium in working more efficiently and credibly towards the fulfilment of project objectives and outcomes. The monitoring report will be evaluated by external monitoring expert.	ULCO ALL	COO BEN	Yes, for the external monitoring expert
T1.5	Quality Assurance and control	Task 1.5 specifies that a UAEGEAN-chaired quality assurance committee will establish the overall approach for quality control, external and internal evaluation, and the criteria for partners to follow for successful communication, in addition to the preparation and reporting of project deliverables. The quality report will be evaluated by external quality expert.	ULCO ALL	COO BEN,	Yes, for external quality expert

Milestones and deliverables (outputs/outcomes)

Milestone No (continuous numbering not linked to WP)	Milestone Name	Work Package No	Lead Beneficiary	Description	Due Date (month number)	Means of Verification
MS1	Kick-off meeting	1	ULCO	The project will launch with the kick-off meeting. That will gather the BLUE-ERA consortium members, headed by ULCO. The	M2	Social media announcements,

				meeting will begin with a general discussion about the project, best practises for project management, and so on.		<p>agenda,</p> <p>signed presence list, and photos</p> <p>Target groups: consortium representatives for each beneficiary</p> <p>Number of estimated participants: 20</p> <p>Duration of the kick-off meeting: 4 days</p>	
MS2	Partnership agreement	1	ULCO	Document including all details establishing the management entity and decision-making procedures as well as the tasks, responsibilities and competencies of each entity.	M6	Official document signed by all partners: electronic format, in English, approximately 50 pages (annexes included), for internal use only.	
MS3	Interim report and financial statement	1	ULCO	Report including all details on the activities conducted during the first half of the project's lifespan. Financial statement detailing all expenditures incurred throughout the first half of the project's life cycle.	M18	The approval of the mid-report and financial statements by EACEA All of them will be available in electronic English format.	
MS4	Final report and financial statement	1	ULCO	Report including all details on the activities conducted during the project's lifespan. Financial statement detailing all expenditures incurred throughout the project's life cycle.	M36	The approval of the final report and financial statements by EACEA All of them will be available in electronic English format.	
Deliverable No (continuous numbering linked to WP)	Deliverable Name	Work Package No	Lead Beneficiary	Type	Dissemination Level	Due Date (month number)	Description (including format and language)

D1.1	Internal Management Platform	1	ULCO	(DEC)- Websites	Sensitive (SEN)	M4	Intranet platform for registered users only (username and password mandatory) There are two major areas: 1. the repository for documents and BLUE-ERA outcomes; 2. Cloud storage for financial documents, Language: English, Link: on the home page of the website
D1.2	Quality assurance Plan	1	UNIPA Co- leaders: ULCO UAEGEAN ,US	(R)- document report	Sensitive (SEN)	M8	The report illustrates structures, measures, tools and procedures in place to ensure quality of results and their timely delivery. Document produced in electronic format, in English, approximately 20 pages (with annexes included).
D1.3	Progress report	1	ULCO	(R)- document report	Sensitive (SEN)	M19	Comprehensive report on activities carried out in the first 18 months of project implementation. Document: electronic format, in English, approximately 30 pages (annexes included)
D1.4	Quality assurance and control report	1	UAEGEAN Co- leaders: UNIPA, ULCO,US	(R)- document report	Sensitive (SEN)	M26	Report taking into account the external quality expert's remarks and specifying the actions taken to respond to them.

AABU	3	10,120	0	6	6	1200	1200	1200	0	0	0	0	960	14,680
Total	30	87,257	12700	45	45	17750	10650	9000	0	0	0	0	9,614	146,971

For certain Lump Sum Grants, see detailed budget table/calculator (annex 1 to Part B; see [Portal Reference Documents](#)).

Work Package 2

Work Package 2: Analysis, development and MSc. Recognition

Duration:	M4- M20	Lead Beneficiary:	UM
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Objectives

- WP (2) is working to launch eight novel modules in the sustainable blue economy that have never been studied at the beneficiary universities. As well as the connection between previously taught modules at each university and the blue economy through the development of fifteen elective modules.
- Upgrading of the modules.
- Obtaining the accreditation for the master's degree from the authorities' bodies.

Activities and division of work (WP description)

Task No (continuous numbering linked to WP)	Task Name	Description	Participants		In-kind Contributions and Subcontracting (Yes/No and which)
			Name	Role (COO, BEN, AE, AP, OTHER)	
T2.1	Survey about blue-economy-related curricula and assessment of these related existing curricula	The preliminary axis to develop novel curricula is a survey list of existing curricula related to the blue economy at Tunisian, Egyptian, and Jordanian universities. This proposal includes a preliminary list;	UM	COO	NO

		however, the most recent and relevant information will be used to complement this task.	AU, US, JU, AABU, AASTMT	BEN	
T2.2	Preparation, development and upgrading of new curricula	New modules will be prepared and developed following the EU member states' instructions to be incorporated in the new curricula. The goal is to have eight new core modules.	UM AASTMT AU, US, UM, JU, AABU	COO BEN	NO
T2.3	Preparation of a new bunch of free elective modules	Preparation and development of a new set of elective modules following the EU member states' instructions. The goal is to have different fifteen modules depending on the specialty, the sustainable blue economy, and the university's specialty.	AU AASTMT, US, UM, JU,AABU	COO BEN	NO
T2.4	Approval and accreditation request for the establishment of the master in sustainable blue economy	The universities in Tunisia (UM, US), Egypt (AASTMT, AU), and Jordan (JU, AABU) will apply for approval and accreditation of the new master's degree by presenting the appropriate file to the responsible authorization body in each country.	UM AASTMT, AU, US, JU,AABU	COO 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
MS5	Quality evaluation by assurance center education committee for the new or upgraded curriculum	2	UAEGEAN	Report on the quality of the new and improved curriculum. Assessment, survey, and analysis findings guidelines Where the lead beneficiary is working in parallel	M14	The quality evaluation will be documented by the reports of assurance center education committee

Deliverable No (continuous numbering linked to WP)	Deliverable Name	Work Package No	Lead Beneficiary	Type	Dissemination Level	Due Date (month number)	Description (including format and language)
D2.1	New Curriculum's modules	2	UM	(R)- document report	Public (PU)	M12	Report describing details of the created new training modules, with learning outcomes, skills, framework, number of hours and ECST for each module. This will serve as a precursor to their accreditation (T 2.4) and the creation of instructional content. Electronic format, roughly 50 pages in English (annexes included). The courses will be in French and/or English in order for them to be authorised in Tunisia.
D2.2	Accreditation of the new master's degree	2	AASTMT	(R)- document report	Sensitive (SEN)	M20	The accreditation application document and an official response, document, or communication demonstrating approval of the accreditation.

Estimated budget — Resources WP2

Participant	Costs
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	A. Personnel		B. Subcontracting	C.1a Travel			C.1b Accomodation	C.1c Subsistence	C.2 Equipment	C.3 Other goods, works and services	D.1 Financial support to third parties		E. Indirect costs	Total costs
ULCO	2	10,727	0	0	0	0	0	0	0	0	0	0	751	11,478
UNIPA	3	12,100	0	0	0	0	0	0	0	0	0	0	847	12,947
UAEGEAN	1	4,500	0	0	0	0	0	0	0	0	0	0	315	4,815
AASTMT	4	10,432	0	0	0	0	0	0	0	0	0	0	730	11,162
AU	2	5,216	0	0	0	0	0	0	0	0	0	0	365	5,581
US	5	5,230	0	0	0	0	0	0	0	0	0	0	366	5,596
UM	5	5,230	0	0	0	0	0	0	0	0	0	0	366	5,596
JU	1	3,080	0	0	0	0	0	0	0	0	0	0	216	3,296
AABU	1	3,080	0	0	0	0	0	0	0	0	0	0	216	3,296
Total	24	59,595	0	0	0	0	0	0	0	0	0	0	4,172	63,767

For certain Lump Sum Grants, see detailed budget table/calculator (annex 1 to Part B; see [Portal Reference Documents](#)).

Work Package 3: Sustainable Blue Economy in the local and global labour markets					
Duration:	M2 – M8	Lead Beneficiary:	JU		
Objectives					
<ul style="list-style-type: none"> • WP (3) will act as a direct bridge to the labour market. It will foster connections with the sustainable blue economy in the maritime industry and the labour market, promoting the employability of students enrolled in the BLUE ERA master's degree programme. • Defining the curriculum and case studies by bridging the gap between academics, scientific research, and industry. It will strengthen the links of ensuring that students acquire the necessary skills and work on labor-market-relevant problems. 					
Activities and division of work (WP description)					
Task No (continuous numbering linked to WP)	Task Name	Description	Participants		In-kind Contributions and Subcontracting (Yes/No and which)
			Name	Role (COO, BEN, AE, AP, OTHER)	
T3.1	Database, information sharing strategy, as well as networking	The objective is to include all of the key stakeholders in a single database to enable collaboration, communication, idea exchange, and event invitations.	JU AASTMT, AU, US, UM, AABU	COO BEN	NO
T3.2	Collaboration between academia and industry.	ALL beneficiaries will collaborate closely with industry and the labour market to detect specific case studies.	AU AASTMT, US, JU, UM, AABU	COO BEN	NO

T3.3	Workshops on the use of the blue economy in industries and the labour market	Workshops will be held in Tunisia, Egypt, and Jordan to highlight the vital uses of the blue economy sector. This will stimulate ideas, passion, and interest in the Blue Era, as well as encourage companies to participate in the initiative's many events, and workshops. The European partners will assist in the organisation of the workshops they will attend remotely.	AASTMT UNIPA, AU, US, JU, UM, AABU	COO 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
MS6	Model and format of workshop on the blue economy for the labour market agreed	3	AASTMT	The workshops demonstrating the value and adaptability of the blue economy in the labour market.		M4	Report detailing meetings with beneficiaries to agree on format, invitations and organization of workshops
Deliverable No (continuous numbering linked to WP)	Deliverable Name	Work Package No	Lead Beneficiary	Type	Dissemination Level	Due Date (month number)	Description (including format and language)
D3.1	Networking data base	3	JU	(R)- document report	Sensitive	M4	Create standards for successful networking and collaboration between the consortium and the labour market. As a result, a networking database is created. Roughly 20 pages in electronic format in English (annexes included).
D3.2	Workshops for labour market stakeholders	3	AASTMT	OTHER	Sensitive	M6	Three workshops, one in Tunisia, one in Egypt and one in Jordan, concerning the application of blue economy approaches to

							<p>industry and labour markets These will be released publicly on the project pages.</p> <p>Academic personnel and stakeholders (industries, associations, public authorities, etc.) are the target audiences Each workshop is expected to have 40 participants. Each workshop will last for one day.</p> <p>Social media announcement, website, videos, and photos, including images and captions, as well as a summary of workshop.</p> <p>The workshops will be documented via reports including invitation, agenda, signed attendance list, feedback form and their analysis. Roughly 30 pages in electronic format in English (annexes included).</p>
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Estimated budget — Resources WP3	
Participant	Costs

	A. Personnel		B. Subcontracting	C.1a Travel			C.1b Accomodation	C.1c Subsistence	C.2 Equipment	C.3 Other goods, works and services	D.1 Financial support to third parties		E. Indirect costs	Total costs
ULCO	2	10,727	0	0	0	0	0	0	0	0	0	0	751	11,478
UNIPA	3	11,900	0	0	0	0	0	0	0	0	0	0	833	12,733
UAEGEAN	4	15,300	0	0	0	0	0	0	0	0	0	0	1,071	16,371
AASTMT	3	7,966	0	0	0	0	0	0	0	0	0	0	558	8,524
AU	2	5,500	0	0	0	0	0	0	0	0	0	0	385	5,885
US	5	5,230	0	0	0	0	0	0	0	0	0	0	366	5,596
UM	5	5,230	0	0	0	0	0	0	0	0	0	0	366	5,596
JU	2	4,840	0	0	0	0	0	0	0	0	0	0	339	5,179
AABU	2	4,840	0	0	0	0	0	0	0	0	0	0	339	5,179
Total	28	71,533	0	0	0	0	0	0	0	0	0	0	5,008	76,541

For certain Lump Sum Grants, see detailed budget table/calculator (annex 1 to Part B; see [Portal Reference Documents](#)).

Work Package 4: Go-live: program implementation					
Duration:		M7- M36	Lead Beneficiary:		AU
Objectives					
<p>(WP4) is the work package in charge of the fulfilment of the new curriculum as well as the go-live of the master’s degree program. It is the key source of project outcomes and has committed resources. The specific objectives are:</p> <ul style="list-style-type: none"> • Following the accreditation (from WP2), all the material will be further developed, and an open call for the first intake in the master's degree in Tunisia, Egypt, and Jordan will start. • Enhance the effectiveness of the new didactic material using a well-planned capacity building plan. • Transfer expertise and methodologies from Europe to the nations of Region 3. 					
Activities and division of work (WP description)					
Task No (continuous numbering linked to WP)	Task Name	Description	Participants		In-kind Contributions and Subcontracting (Yes/No and which)
			Name	Role (COO, BEN, AE, AP, OTHER)	
T4.1	New learning technique and innovative educational approach.	Creating a strategy for increasing human resource capacity, including research scholars and professors, technicians, and skilled students. Organize their training, material exchange, and selection procedure, among other things.	ULCO AASTMT, AU, US, JU, UM, AABU UNIPA, UAEGEAN	COO BEN OTHERS	NO

T4.2	Creation of novel instructional materials	This entails producing educational materials (ppt slideshows, notes, exercises, online videos, quizzes, answers to questions, and so on) in accordance with the accreditation (T2.4) and curriculum development description (T2.2).	AU AASTMT, UNIPA, AU, US, JU, UM, AABU UNIPA, UAEGEAN	COO BEN OTHERS	NO
T4.3	Training for teaching staff and students from the partner countries (Summer/winter school)	Non-EU partners' staff will be trained on the new features. This ensures that they are prepared to teach the new approaches and content.	ULCO AASTMT, AU, US, JU, UM, AABU UNIPA, UAEGEAN	COO BEN OTHERS	NO
T4.4	The first intake is starting and the first semester is running	Starting of the first semester following the accreditation	UM, AASTMT, AU, US, JU, AABU	COO BEN	NO
T4.5	Case studies are being created.	This is the practical work that students will create under the supervision of freshly qualified teaching staff from Tunisia, Egypt, and Jordan. Students can be	AABU	COO	NO

		organised into multidisciplinary teams to work on these practical difficulties, or they can work alone, depending on the goal of their thesis.	AASTMT, AU, US, JU, UM	BEN	
			UNIPA, UAEGEAN	OTHERS	

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
MS7	The model and format for summer/winter schools agreed	4	ULCO	The first summer school, aimed to trained event to begin the enhancement of trainer abilities in Egypt, Tunisia, and Jordan have concluded.		M15	Announcement on a website, social media, attendance logs, and photos
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	Capacity building plan	4	UNIPA	(R)- document report	Public	M24	Objectives of the training courses, course titles and contents, materials used, selection criteria, student and staff numbers, and training methodology are all specified in the report that details the trainers' training, around 30 pages in English, in electronic format.

D4.2	Summer schools for teaching staff	4	ULCO	OTHER – Event	SEN	M18	The Summer School is documented through a report illustrating agenda, number of persons attending, scientific contributions, satisfaction survey and its analysis. 20 pages in electronic format, English, including annexes
D4.3	Winter schools for teaching staff	4	UAEGEAN	OTHER- Event	SEN	M22	The Winter School is documented through a report illustrating agenda, number of persons attending, scientific contributions, satisfaction survey and its analysis. 20 pages in electronic format, English, including annexes
D4.4	Master programme launched in the three countries	4	UNIPA	R)- document report	Public	M25	Report describing the launch of the new Master program, the number of students enrolled, the details of the new training modules' curriculum, learning outcomes, skills, framework, number of hours and ECST for each module, and so on.
D4.5	Summer/ winter school for students	4	UNIPA	OTHER- Event	SEN ()	M32	The Summer/Winter School is documented through a report illustrating agenda, number of persons attending, targeted learning outcomes and teaching/learning materials used, satisfaction survey and its analysis

20 pages in electronic format,
English, including annexes**Estimated budget — Resources WP4**

Participant	Costs													
	A. Personnel		B. Subcontracting	C.1a Travel			C.1b Accomodation	C.1c Subsistence	C.2 Equipment	C.3 Other goods, works and services	D.1 Financial support to third parties		E. Indirect costs	Total costs
ULCO	2	10727	0	6	6	1200	1200	1200	0	0	0	0	1,003	15,330
UNIPA	1	4700	0	4	4	1080	1200	800	0	0	0	0	545	8,325
UAEGEAN	2	8100	0	6	6	1800	1620	1200	0	0	0	0	890	13,610
AASTMT	2	5500	0	12	12	9000	2400	2400	0	0	0	0	1,351	20,651
AU	1	2466	0	10	10	7500	7500	7500	0	0	0	0	978	14,944
US	5	4908	0	7	7	3500	2100	1400	0	0	0	0	834	12,742
UM	5	4908	0	7	7	3500	2100	1400	0	0	0	0	834	12,742
JU	1	3960	0	15	15	3,000	3,000	3,000	0	0	0	0	907	13,867

AABU	1	3960	0	15	15	3,000	3,000	3,000	0	0	0	0	907	13,867
Total	20	49229	0	82	82	30880	24120	21900	0	0	0	0	8,249	126,078

For certain Lump Sum Grants, see detailed budget table/calculator (annex 1 to Part B; see [Portal Reference Documents](#)).

Work Package 5

Work Package 5: Interconnected and international labs					
Duration:	M6 – M24	Lead Beneficiary:	UNIPA		
Objectives					
This WP addresses the construction of labs in universities in Tunisia, Egypt, and Jordan. It covers the complete process life cycle, from designing to tendering through purchase and installation. The laboratories are essential for teaching (WP4), creating creative solutions based on case studies (WP4), and for upcoming collaboration and cooperative initiatives (sustainability as in WP1).					
Activities and division of work (WP description)					
Task No (continuous numbering linked to WP)	Task Name	Description	Participants		In-kind Contributions and Subcontracting (Yes/No and which)
			Name	Role (COO, BEN, AE, AP, OTHER)	
T5.1	Designing laboratories	Establish the precise equipment required, its specifications, potential vendors, its purpose, etc.	US AASTMT, AU, JU, UM, AABU	COO BEN	NO

T5.2	Tendering procedure	Each institution's tendering process must be followed in order to receive, assess, and place orders for quotations.	JU AASTMT, AU, US, UM, AABU	COO BEN	NO
T5.3	Purchasing and setting up. The laboratories are up and running.	Orders are settled, equipment, software, etc. are received, checked, and fixed to create the lab.	AABU AASTMT, AU, US, UM, JU	COO BEN	NO
T5.4	Convergence and collaborative research strategies and subjects	T5.3 includes a total of six labs; In this task (T 5.4) all those labs are linked and located in the same area in the south Mediterranean, and that will enhance the joint research and exploitation strategy that will feed into the sustainability of the project (T1.4).	UNIPA AABU, AASTMT, AU, US, UM, JU	COO 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
MS8	Received quotations are evaluated	5	AASTMT	After receiving and evaluating the quotations, orders for all essential equipment are done.	M20	List of equipment purchased, official documents. Photos, live -stream videos for the new equipment inside the laboratories, verification emails from the trade companies to the ULCO and UNIPA confirming that the buying process is done, and then the receipt must be sent directly to the ULCO and UNIPA from the university. During the consortium meetings, members have the

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	Laboratories setup and linked together	5	AU	OTHER	Public	M24	<p>right to ask to visit the new labs.</p> <p>The set up of the labs is documented through a report providing the details of each lab, and the strategy for using them in future research and project cooperation.</p> <p>Electronic format, roughly 20 pages in English (the annexes included).</p>

Estimated budget — Resources WP5

Participant	Costs													
	A. Personnel		B. Subcontracting	C.1a Travel			C.1b Accomodation	C.1c Subsistence	C.2 Equipment	C.3 Other goods, works and services	D.1 Financial support to third parties		E. Indirect costs	Total costs
ULCO	2	9,392	0	6	6	1200	1200	1200	0	0	0	0	909	13,901
UNIPA	2	8,400	0	3	3	810	900	800	0	0	0	0	750	11,460
UAEGEAN	1	4,500	0	3	3	900	810	600	0	0	0	0	477	7,287
AASTMT	2	5,500	0	6	6	4500	1200	1200	39000	0	0	0	3,598	54,998

AU	2	5,216	0	6	6	4500	1200	1200	30000	0	0	0	2,948	45,064
US	4	4,187	0	3	3	1500	900	600	30000	0	0	0	2,603	39,790
UM	4	4,187	0	3	3	1500	900	600	30000	0	0	0	2,603	39,790
JU	1	3,080	0	3	3	600	600	600	30000	0	0	0	2,442	37,322
AABU	1	3,080	0	3	3	600	600	600	30000	0	0	0	2,442	37,322
Total	19	47,542	0	36	36	16110	8310	7400	198000	0	0	0	18,772	286,934

For certain Lump Sum Grants, see detailed budget table/calculator (annex 1 to Part B; see [Portal Reference Documents](#)).

Work Package 6

Work Package 6: Impact and Dissemination

Duration: M1- M36 **Lead Beneficiary:** AASTMT

Objectives

This is the core dissemination and impact work package, and it is critical in maintaining enthusiasm for the project, enhancing its outcomes and adding value. As well as demonstrating the expanded skills of students and institutions in Tunisia, Egypt, Jordan, and throughout the world. the specific objectives are:

- Creating and maintaining enthusiasm for the project through ongoing initiatives' activities and events.

<ul style="list-style-type: none"> • Continue to spread the outcomes and the participants' new qualifications to the selected stakeholders. • Encouragement of participants' entire blend of technical and entrepreneurial abilities by presenting unique solutions to local challenges. 					
Activities and division of work (WP description)					
Task No (continuous numbering linked to WP)	Task Name	Description	Participants		In-kind Contributions and Subcontracting (Yes/No and which)
			Name	Role (COO, BEN, AE, AP, OTHER)	
T6.1	Creating a Communication Plan	T 6.1 consist of 36-month dissemination and connection schema. Considering indicators, responsibilities, and deadlines. Each task will have a specific target audience and key performance indicators to track its success. The outcomes will be examined, and if necessary, changes will be adjusted to the activities, techniques, target groups, and tracking measures.	AASTMT AABU, , AU, US, UM, JU	COO BEN	NO
T6.2	Creating a Dissemination and Sustainability Plan	UNIPA will be responsible for a sustainability plan that will outline standards for maintaining the continuity of defined BLUE-ERA objectives, taking into account institutional, organizational, and financial feasibility as well as social and economic factors.	UNIPAD ALL	COO BEN	NO
T6.3	Papers and digital promotional materials are examples of primary marketing materials.	There will be a definition for a strong project acronym and other marketing materials for efficient branding for the master's degree.	AASTMT AABU, AU, US, UM, JU	COO BEN	NO
T6.4	Inspirational blue economy lectures with academics and business	Seminars on the use of the blue economy in the academic and labour markets, both in person and online	AASTMT	COO	NO

			AABU, AU, US, UM, JU	BEN	
T6.5	Social activities	Seminars, newsletters, internet posts, workshops, and other public events will be held to raise awareness of the blue economy and its results among community	UM AASTMT AABU, AU, US, JU	COO BEN	NO
T6.6	Final conference and dissemination event	This will be done to ensure a successful project conclusion and will highlight the results and accomplishments of the projects.	AASTMT AABU, AU, US, UM, JU	COO BEN	Subcontracting used for the organisation of the final conference

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
Deliverable No (continuous numbering linked to WP)	Deliverable Name	Work Package No	Lead Beneficiary	Type	Dissemination Level	Due Date (month number)	Description (including format and language)
D6.1	Website ready and social media active and running	6	AASTMT	DEC	Public	M4	Screenshots from social media and other sources for the project. Approximately 10 pages in English, electronic format
D6.2	Communication Plan	6	AASTMT	(R)- document report	Sensitive	M12	Document outlining the communication strategies to raise the project's visibility among the national

							<p>academic community, students and stakeholders, including activities, targeted groups, responsibilities, desired outcomes, newsletters and social media use (i.e Facebook live).</p> <p>.</p> <p>In English, roughly 30 pages in electronic format</p>
D6.3	Dissemination, exploitation and sustainability Plan	6	UNIPA	(R)- document report	Sensitive	M22	<p>Plan outlining the dissemination activities, exploitation and sustainability strategies. It includes activities, responsibilities of each partner, means, tools, timeframe, and targeted values. Electronic format, in English, approximately 30 pages (with annexes included).</p>
D6.4	Motivational workshops	6	AASTMT	Other- Events	SEN	M32	<p>Motivational seminars in Egypt, Tunisia and Jordan. Target groups are: academic staff, students, associated partners, industries, professionals, stakeholders. Estimated number of participants: 100 persons Duration of the event: 1 day each.</p> <p>They are documented through a report containing,</p>

														agenda, invitations channels and advertisement means, lists of attendees per each targeted group, feed-back form and its analysis by the consortium.
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Estimated budget — Resources WP6

Participant	Costs													
	A. Personnel		B. Subcontracting	C.1a Travel			C.1b Accomodation	C.1c Subsistence	C.2 Equipment	C.3 Other goods, works and services	D.1 Financial support to third parties		E. Indirect costs	Total costs
ULCO	3	15,470	0	8	8	1,600	1600	1600	0	0	0	0	1,419	21,689
UNIPA	2	8,400	0	5	5	1,350	1,500	1,000	0	0	0	0	858	13,108
UAEGEAN	-	-	0	5	5	1,500	1,350	1,000	0	0	0	0	270	4,120
AASTMT	4	9,365	5000	0	0	0	0	0	0	0	0	0	1,006	15,371
AU	1	2,466	0	0	0	0	0	0	0	0	0	0	173	2,639
US	4	4,182	0	3	3	1,500	900	600	0	0	0	0	503	7,685
UM	4	4,182	0	3	3	1,500	900	600	0	0	0	0	503	7,685

JU	1	3,080	0	4	4	800	800	800	0	0	0	0	384	5,864
AABU	1	3,080	0	4	4	800	800	800	0	0	0	0	384	5,864
Total	3	50,225	5000	32	32	9050	7850	6400	0	0	0	0	5,500	84,025

For certain Lump Sum Grants, see detailed budget table/calculator (annex 1 to Part B; see [Portal Reference Documents](#)).

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	Management, financial and evaluation framework	1	ULCO	1	36	30
2	Analysis, development and MSc. Recognition	7	UM	4	16	24

3	Sustainable Blue Economy in the local and global labour markets	8	JU	2	15	28
4	Go-live: program implementation	5	AU	7	34	20
5	Interconnected and international labs	2	UNIPA	1	14	19
6	Impact and Dissemination	4	AASTMT	1	36	20
					Total Person- Months	141

Staff effort per participant <i>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.</i>							
Participant	WP1	WP2	WP3	WP4	WP5	WP6	Total Person-Months
ULCO	3	2	2	2	2	3	14
UNIPA	3	3	3	1	2	2	14
UAEGEAN	4	1	4	2	1	-	12

AASTMT	3	4	3	2	2	4	18
AU	1	2	2	1	2	1	9
US	5	5	5	5	4	4	28
UM	5	5	5	5	4	4	28
JU	3	1	2	1	1	1	9
AABU	3	1	2	1	1	1	9
Total Person-Months	30	24	28	20	19	20	141

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 (continuous numbering linked to WP)	Subcontract Name (subcontracted action tasks)	Description (including task number and BEN/AE to which it is linked)	Estimated Costs (EUR)	Justification (why is subcontracting necessary?)	Best-Value-for-Money (how do you intend to ensure it?)
WP1	S1.1	Monitoring expert	Linked to Task 1.4 The expert will provide an evaluation of the project's monitoring report, which will be linked to US ,	2300	Ensure the integrity and credibility of the submitted	Selection of an expert with expertise who can perform effectively at a good price

			where they chaired monitoring and control committee, and working with ULCO in WP1 BEN: US		monitoring reports and their validity.	
WP1	S1.2	Quality expert	Linked to Task 1.5 The expert will provide an evaluation of the project's quality assurance statement, which will be linked to UAEGEAN , where they chaired quality assurance committee, and working with ULCO in WP1 BEN: UAEGEAN	3400	Ensure the integrity and credibility of the submitted quality reports and their validity.	Selection of an expert with expertise who can perform effectively at a good price
WP6	S6.3	Final conference	Linked to Task 6.6 A final conference and closing ceremony will be held at AASTMT, after the last consortium meeting. BEN: AASTMT	5000	Firstly, there will be a final meeting of the consortium, followed by a conference with stakeholders, academia, and others. To show them BLUE-ERA outcomes.	The conference should be scheduled to coincide with the final consortium meeting in order to save money. Also, the attendees of the conference will be selected based on specific criteria.
Other issues: <i>If subcontracting for the project goes beyond 30% of the total eligible costs, give specific reasons.</i>			No			

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	[ULCO, UNIPA, UAEGEAN, AASTMT, AU, US, UM, JU, AABU]	[Kick off meeting]	Staff from beneficiaries will attend the consortium meeting.	Discussion about project progress and how to achieve the best value	Dunkerque, France	4	15
E1.2	[ULCO, UNIPA, UAEGEAN, AASTMT, AU, US, UM, JU, AABU]	[Second consortium meeting]	Staff from beneficiaries will attend the consortium meeting.	Discussion about project progress and how to achieve the best value	Palermo, Italy	4	12
E1.3	[ULCO, UNIPA, UAEGEAN, AASTMT, AU, US, UM, JU, AABU]	[Third consortium meeting]	Staff from beneficiaries will attend the consortium meeting.	Discussion about project progress and how to achieve the best value	Sousse, Tunisia	4	12
E1.4	[ULCO, UNIPA, UAEGEAN, AASTMT, AU, US, UM, JU, AABU]	[Fourth consortium meeting]	Staff from beneficiaries will attend the consortium meeting.	Discussion about project progress and how to achieve the best value	Amman, Jordan	4	12
E1.5	[ULCO, UNIPA, UAEGEAN, AASTMT, AU, US, UM, JU, AABU]	[Fifth consortium meeting]	Staff from beneficiaries will attend the consortium meeting.	Discussion about project progress and how to achieve the best value	Online	4	45
E3.1	[ULCO, UNIPA, UAEGEAN]	[Workshop]	Staff from all beneficiaries	ULCO will later nominate topics for the workshop in blue economy applications.	Online	1	45

	[AASTMT, AU, US, UM, JU, AABU]						
E4.1	[ULCO, UAEGEAN, AASTMT, AU, US, UM, JU, AABU]	[Summer School for staff at ULCO]	Staff from all beneficiaries under the supervision of ULCO. Attendance of UNIPA and UAEGEAN are as instructors.	ULCO will later nominate topics for the workshop in blue economy applications.	Dunkerque, France	7	23
E4.2	[ULCO, UNIPA, UAEGEAN, AASTMT, AU, US, UM, JU, AABU]	[Winter school for staff at UAEGEAN]	Staff and from AASTMT, AU, US, UM, JU, AABU under the supervision of ULCO, UNIPA, UAEGEAN	UAEGEAN will later nominate topics for the workshop in blue economy applications.	Mytilini, Greece	7	23
E4.3	[ULCO, UNIPA, UAEGEAN, AASTMT, AU, US, UM, JU, AABU]	[Summer School for students at UNIPA]	Students and young professional ocean career will be nominated from AASTMT, AU, US, UM, JU, AABU. Attendance of ULCO and UAEGEAN are as instructors.	UNIPA will later nominate topics for the workshop in blue economy applications.	Palermo, Italy	7	36
E5.1	[ULCO, UNIPA, UAEGEAN, AASTMT, AU, US, UM, JU, AABU]	[Training for students and staff]	Physical attendance will be made by students and staff from beneficiaries.	Ocean governance and negotiations for ocean policy making	Palermo, Italy	7	36
E6.1	[AASTMT, AU]	[Seminar] in one country.	Motivational seminar. Physical attendance at the universities (AASTMT, AU) for different categories form staff, students and associated partners, and stakeholders	Blue economy applications	AASTMT, Egypt	1	40

E6.2	[US, UM]	[Seminar] in one country.	Motivational seminar. Physical attendance at the universities (US, UM) for different categories form staff, students and associated partners, and stakeholders	Blue economy applications	US, Tunisia	1	40
E6.3	[JU, AABU]	[Seminar] in one country.	Motivational seminar. Physical attendance at the universities (JU, AABU) for different categories form staff, students and associated partners, and stakeholders	Blue economy applications	JU, Jordan	1	40
E6.4	[ULCO, UNIPA, UAEGEAN, AASTMT, AU, US, UM, JU, AABU]	[Sixth consortium meeting]	Staff from beneficiaries will attend the consortium meeting.	Final consortium meeting and discussion of the sustainability plan and interconnected labs	AASTM, Egypt	5	42
E6.5	[ULCO, UNIPA, UAEGEAN, AASTMT, AU, US, UM, JU, AABU, and Stakeholders, responsible authorities, and associated partners from Egypt]	[Final conference and Closing ceremony of the BLUE-ERA]	All consortium members and different categories of stakeholders, including the public and academia higher authorities of a governmental nature.	Project outcomes and prospective	AASTMT, Egypt	1	130

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			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Task 1.1: Management scheme and operation including subcommittees												
Task 1.2: Financial Management and costs reporting.												
Task 1.3: • Coordination activities And • Sustainability Plan.												
Task 1.4: Project technical reporting, monitoring and control												
Task 1.5: Quality Assurance and control												
Task 2.1: Survey about blue-economy-related curricula and assessment of these related existing curricula												
Task 2.2: Preparation of new curricula												
Task 2.3: Preparation of a new bunch of free elective curricula												
Task 2.4: Approval and accreditation request for the establishment of the master in sustainable blue economy												

Task 3.1: Database, information sharing strategy, as well as networking													
Task 3.2: Collaboration between academia and industry.													
Task 3.3: Workshops on the use of the blue economy in industries and the labour market													
Task 4.1: New learning technique and innovative educational approach													
Task 4.2: Creation of novel instructional materials													
Task 4.3: Training for teaching staff from the partner countries													
T4.4: The first intake is starting and the first semester is running													
Task 4.5: Case studies are being created													
Task 5.1: Designing laboratories													
Task 5.2: Tendering procedure													
Task 5.3: Purchasing and setting up. The laboratories are up and running.													
Task 5.4: Convergence and collaborative research strategies and subjects													
Task 6.1: Creating a Communication Plan													
Task 6.2: Creating a Dissemination and Sustainability Plan													

Task 6.3: Papers and digital promotional materials are examples of primary marketing materials.												
Task 6.4: Inspirational blue economy lectures with academics and business												
Task 6.5: Social activities												
Task 6.6: Final conference and dissemination event												

#§WRK-PLA-WP§#



#@ETH-ICS-EI@#

5. OTHER**5.1 Ethics**

<p>Ethics (if applicable)</p> <p><i>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.</i></p> <p><i>Describe how you will ensure gender mainstreaming and children's rights in the project activities.</i></p> <p>The BLUE-ERA consortium respects all scientific ethics, considering the environmental concerns that could arise during the project. All issues regarding the funding agency, persons, or the public will be brought directly to the steering committee (SC) and the project coordinator (PC) for discussion and taking the right decision. The roles, responsibilities, and rights of the researchers will be protected because the current consortium upholds, follows, and applies the European Charter for Researchers.</p> <p>BLUE-ERA consortium adheres to the EU General Data Protection Regulation (GDPR). BLUE-ERA does not, in general, raise any significant ethical issues. The proposal does not include the usage of dangerous fuels or hazardous materials, garbage, clinical studies, animals, or children. Also, we are against isolating genders or social groups (like races).</p> <p>We are committed to applying the highest ethical and proprietary standards, since, besides being a duty, researchers must be taught research ethics as part of the project's goals.</p>


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5.2 Security

<p>Security</p> <p>Not applicable.</p>

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6. DECLARATIONS

Double funding	
<p>Information concerning other EU grants for this project</p> <p> Please note that there is a strict prohibition of double funding from the EU budget (except under EU Synergies actions).</p>	YES/NO
<p>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.</p>	YES
<p>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.</p>	YES

<p>Financial support to third parties (if applicable)</p> <p><i>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.</i></p>

We will not be providing financial support to third parties.

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

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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					
<i>Please provide a list of your previous projects for the last 4 years.</i>					
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	28.02.2023	Submitted application
2.0	05.10.2023	Rationalisation of deliverables, clarification of the description of milestones and deliverables and review of due dates to ensure coherent and smooth running of the project

Proposal Info			
Proposal ID	Call for Proposal	Topic	Type of Action
SEP-210926255	ERASMUS-EDU-2023-CBHE	ERASMUS-EDU-2023-CBHE-STRAND-2	ERASMUS-LS

Objectives

- Improve the quality of higher education in third countries not associated to the Erasmus+ programme and enhance its relevance for the labour market and society
- Improve the level of competences, skills and employability potential of students in HEIs in the third countries not associated to the Erasmus+ programme by developing new and innovative education programmes
- Promote inclusive education, equality, equity, non-discrimination and the promotion of civic-competences in higher education in the third countries not associated to the Erasmus+ programme
- Enhance the teaching, assessment mechanisms for HEI staff and students, quality assurance, management, governance, inclusion, innovation, knowledge base, digital and entrepreneurial capacities, as well the internationalisation of HEIs in the third countries not associated to the Erasmus+ programme
- Increase the capacities of HEI, bodies in charge of higher education and competent authorities of third countries not associated to the Erasmus+ programme to modernise their higher education systems, particularly in terms of governance and financing, by supporting the definition, implementation and monitoring of reform processes
- Improve the training of teachers and continuous professional development in order to impact the longer term quality of the education system in the third countries not associated to the Erasmus+ programme
- Stimulate cooperation of institutions, capacity building and exchange of good practice
- Foster cooperation across different regions of the world through joint initiatives

Regional priority areas

Region 3 - South-Mediterranean countries

Increase climate awareness, sustainability and resilience, specifically in the key sectors of agriculture, fisheries, energy and water management

Regions involved in the project

Define the type of the project :

- National project
- Multi-country project
- Cross-regional project

Project implementation

Number of higher education institutions (universities) located in remote regions/area 0

Number of newcomer/less experienced coordinating higher education institutions (universities) to the CBHE action

not yet involved in CBHE projects 2

Coordinating HEI - involved in 1 to 3 CBHE projects 3

Coordinating HEI - involved in 4 or more CBHE projects 3

Number of newcomer/less experienced partner higher education institutions (universities) to the CBHE action

not yet involved in CBHE projects 2

Partner HEI - involved in 1 to 3 CBHE projects 7

Partner HEI - involved in 4 or more CBHE projects 5

People with fewer opportunities

Is your project addressing people with fewer opportunities?

- Yes
- No

- People with disabilities
- People with health problems
- People suffering from social and economic barriers
- People suffering from discrimination because of gender, age, ethnicity, culture, religion, beliefs, sexual orientation
- People facing geographical barriers
- Refugees, migrants and internally displaced people

Number of students/staff/other target groups with fewer opportunities to be involved in the project 5

Target groups from the third country(ies) not associated to the Erasmus+ programme involved in the project

Number of students following the courses/study programmes (at Bachelor, Master, PhD level) 72

Number of students to be trained/involved in the mobility (studying) 52

Number of students/staff females to be involved in the project 62

Number of students/staff with practical placements 40

Number of academic staff to be trained 88

Number of university administrative staff to be trained 18

Number of staff from Ministries and other public authorities to be trained 0

Number of people to be trained that are not enrolled in HEIs 0

Higher Education Institutions (HEI) - Cooperation agreement(s)

Is the project going to establish any cooperation agreement(s) with relevant stakeholders?

Yes No

- HEIs not involved in the project
- Associations, civil society organisations and NGOs
- Public organisations
- Local authorities in the third countries not associated to the Erasmus+ programme
- Private sector
- Social enterprises
- Research institutions
- Others

Higher Education Institutions (HEI) - Courses/Study programmes/Placements/Structures

Number of new courses 8

Number of new study programmes 1

- New joint study programmes
- New interdisciplinary study programmes

Number of updated courses 15

Number of updated study programmes 0

- Updated joint study programmes
- Updated interdisciplinary study programmes

Number of study programmes with practical placements 1

Number of new or modernised structures/units/centres/hubs to be created 0

Number of new or modernised labs 6

Impact at the Higher Education sector

Does the proposal intend to impact the Higher Education (HE) sector in the participating third countries not associated to the Erasmus+ programme?

Yes No

- New national policies or legislative framework in HE
- New regional policies or legislative framework in HE
- Contribution to the creation of a regional HE area (facilitate national and cross-border recognition, support mobility of teachers, learners and workers)
- Include the active participation of students in governance and reform of the HE system
- Strengthen the links between education, research and innovation
- Contribute to the reform of higher education policies that respond to societal and labour market needs
- Develop schemes that facilitate the employability of graduates

Other sources of funding

Does the proposal complement other local/national/international sources of funding?

Yes No

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 Management, financial and evaluation framework	WP2 Analysis, development and MSc. recognition	WP3 Sustainable Blue Economy in the local and global labour markets	WP4 Go-live: program implementation	WP5 Interconnected and international labs	WP6 Impact and Dissemination		
Lump sum contribution	Lump sum contribution	Lump sum contribution	Lump sum contribution	Lump sum contribution	Lump sum contribution		
Forms of funding	a	b	c	d	e	f	g = a + b + c + d + e + f
1 - ULCO	23 512.00	10 330.00	10 330.00	13 797.00	12 511.00	19 520.00	90 000.00
2 - U.AEGEAN	20 193.00	4 333.00	14 734.00	12 249.00	6 558.00	3 708.00	61 775.00
3 - UNIPA	15 360.00	11 653.00	11 460.00	7 492.00	10 314.00	11 797.00	68 076.00
4 - AASTMT	13 208.00	10 046.00	7 672.00	18 586.00	49 498.00	13 834.00	112 844.00
5 - ALEXANDRIA.U	7 911.00	5 024.00	5 297.00	13 450.00	40 558.00	2 374.00	74 614.00
6 - US	10 570.00	5 036.00	5 036.00	11 468.00	35 811.00	6 917.00	74 838.00
7 - U.MONASTIR	8 355.00	5 036.00	5 036.00	11 468.00	35 811.00	6 917.00	72 623.00
8 - UJ	13 212.00	2 966.00	4 661.00	12 480.00	33 590.00	5 278.00	72 187.00
9 - AAUB	13 212.00	2 966.00	4 661.00	12 480.00	33 590.00	5 278.00	72 187.00
Σ consortium	125 533.00	57 390.00	68 887.00	113 470.00	258 241.00	75 623.00	699 144.00

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

PANEPISTIMIO AIGAIU (U.AEGEAN), PIC 999840693, established in LOFOS PANEPHISTIMIOU, MYTILINI 81100, Greece,

hereby agrees

to become beneficiary

in Agreement No 101128861 — BLUE-ERA ('the Agreement')

between UNIVERSITE DU LITTORAL (ULCO) 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

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

UNIVERSITA DEGLI STUDI DI PALERMO (UNIPA), PIC 999734284, established in PIAZZA MARINA 61, PALERMO 90133, Italy,

hereby agrees

to become beneficiary

in Agreement No 101128861 — BLUE-ERA ('the Agreement')

between UNIVERSITE DU LITTORAL (ULCO) 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

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

ARAB ACADEMY FOR SCIENCE, TECHNOLOGY AND MARITIME TRANSPORT (AASTMT), PIC 998137082, established in EL MOSHEER AHMED ISMAIL STREET MASAKEN EL SHERATON, CAIRO 2033, Egypt,

hereby agrees

to become beneficiary

in Agreement No 101128861 — BLUE-ERA ('the Agreement')

between UNIVERSITE DU LITTORAL (ULCO) 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

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

ALEXANDRIA UNIVERSITY (ALEXANDRIA.U), PIC 994537800, established in EL GEISH STREET 22, Alexandria 21526, Egypt,

hereby agrees

to become beneficiary

in Agreement No 101128861 — BLUE-ERA ('the Agreement')

between UNIVERSITE DU LITTORAL (ULCO) 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

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

University of Sousse (US), PIC 991390053, established in Rue khalifa El Karoui Sahloul, Sousse 4000, Tunisia,

hereby agrees

to become beneficiary

in Agreement No 101128861 — BLUE-ERA ('the Agreement')

between UNIVERSITE DU LITTORAL (ULCO) 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

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

UNIVERSITY OF MONASTIR (U.MONASTIR), PIC 946167683, established in TAHAR HADDAD STREET, MONASTIR 5000, Tunisia,

hereby agrees

to become beneficiary

in Agreement No 101128861 — BLUE-ERA ('the Agreement')

between UNIVERSITE DU LITTORAL (ULCO) 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

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

UNIVERSITY OF JORDAN (UJ), PIC 997223342, established in QUEEN RANIA AL ABDULLAH STREET, Amman 11942, Jordan,

hereby agrees

to become beneficiary

in Agreement No 101128861 — BLUE-ERA ('the Agreement')

between UNIVERSITE DU LITTORAL (ULCO) 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

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

AL-ALBAYT UNIVERSITY (AAUB), PIC 933024765, established in DIA EDDIN ARAFAH, MAFRAQ 25113, Jordan,

hereby agrees

to become beneficiary

in Agreement No 101128861 — BLUE-ERA ('the Agreement')

between UNIVERSITE DU LITTORAL (ULCO) 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

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]		
[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]	[Lump sum contribution// Financing not linked to costs]	
Forms of funding												
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.

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