# Project details

## Application details

**Competition name**
Horizon Europe Guarantee

**Application name**
WEDUSEA: Wave Energy Demonstration at Utility Scale to Enable Arrays

**When do you wish to start your project?**
17 June 2024

**Project duration in months**
58 months

## Application team

## University of Plymouth

Organisation details

| | |
|---|---|
| Type | Research |

**Team members**

| Full name | Phone number | Email | EDI survey |
|---|---|---|---|
| [redacted] | | | |

# Work programme

## Select the Horizon Europe Work programme Part you applied to, e.g. CL2.

Climate, Energy and Mobility (CL5)

## Select the call you applied to.

HORIZON-CL5-2021-D3-02

# Application questions

## 1. Tell us where your organisation is based

### Tell us where your organisation is based

My organisation is based in the UK or a British Overseas Territory

## 2. Participating organisation project region

### Participating organisation project region

South West

## 3. Project start date

### If your project has already started at time of submission to UKRI, please tell us the actual start date of the project.

01/09/2022

## 4. Application reference number

### Application reference number

101075527

Amendment - AMD-101075527-5-Signed EU.pdf (opens in a new window) (/management/competition/1181/application/10103051/forminput/69365/file/713886/download).

ESR and Invitation letter WEDUSEA.pdf (opens in a new window) (/management/competition/1181/application/10103051/forminput/69365/file/713963/download).

## 5. Total amount of grant funding requested (GBP)

### Total amount of grant funding requested (GBP)

£994,997.43

Remaining Budget to transfer to Plymouth.pdf (opens in a new window) (/management/competition/1181/application/10103051/forminput/69371/file/714925/downlo

ad).

WEDUSEA 10103051 CCT.xlsx (opens in a new window) (/management/competition/1181/application/10103051/forminput/69371/file/714938/download).

## 6. Have the tasks assigned to your institution changed significantly since your original application?

**Have the tasks assigned to your institution changed significantly since your original application?**

No

## 7. If the tasks assigned to your institution have changed significantly since your original application, does this affect the amount you are requesting?

**If the tasks assigned to your institution have changed significantly since your original application, does this affect the amount you are requesting?**

No

## 8. Will you, as a UK institution, be employing PhD students as part of this project?

**Will you, as a UK institution, be employing PhD students as part of this project?**

No

## 9. How many PhD students will be employed at your institution on this project?

**How many PhD students will be employed at your institution on this project?**

No

## 10. How much budget is allocated for PhD students employed at your institution on this project?

**How much budget is allocated for PhD students employed at your institution on this project?**

No

# 11. Non-UK based personnel or subcontractors

## Non-UK based personnel or subcontractors

Answer yet to be provided

# 12. Non-UK based personnel or subcontractors location

## Non-UK based personnel or subcontractors location

Answer yet to be provided

The finances of all project partners are included in this summary.

| | Total costs (£) | Funding level (%) | Funding sought (£) | Contribution to project (£) | Other public sector funding (£) |
|---|---|---|---|---|---|
| University of Plymouth<br>Organisation | **994,997** | 100.00 | 994,997 | 0 | 0 |

## Funding breakdown

### University of Plymouth £994,997

Organisation

View finances (/application/10103051/form/FINANCE/7532)



### Totals £994,997



## Terms and conditions

## Award terms and conditions

| Partner | Terms and conditions |
| --- | --- |
| University of Plymouth (Lead) | Horizon Europe Guarantee - Subsidy control (/application/10103051/form/terms-and-conditions/organisation/7532/question/26629) |

EUROPEAN CLIMATE, INFRASTRUCTURE AND ENVIRONMENT EXECUTIVE AGENCY (CINEA)

CINEA.C – Green research and innovation
**C.2 – Horizon Europe Energy**

# AMENDMENT No AMD-101075527-5

## Project: 101075527 — WEDUSEA

The parties agree to amend the Agreement as follows ('**Amendment**'):

### 1. Addition of an associated partner

The following new associated partner(s) are added as from:

– UNIVERSITY OF PLYMOUTH (UoP): the date of entry into force of this Amendment

This implies the **following changes** to the Agreement:

- The new associated partner(s) and the entry date are added to the list of participants in the **Data Sheet**.
- The new associated partner(s) are added to **Article 9.1**:
  - UNIVERSITY OF PLYMOUTH (UoP), PIC 999854661

### 2 . Change of Annex 1

As from 1 May 2024, **Annex 1** is changed and replaced by the Annex 1 attached to this Amendment.

### 3 . Change of the project duration

The project duration in the **Data Sheet** is changed to 58.

### 4. Change of the reporting periods

The reporting period(s) in the **Data Sheet** are changed to:

– RP 1: month 1 to month 28

– RP 2: month 29 to month 46

– RP 3: month 47 to month 58

### 5. Resuming the action after GA suspension

The grant was suspended from 30 June 2023 to 1 May 2024.

The parties agree to resume the implementation as from 2 May 2024.

**6. Change of Annex 2**

As from 1 May 2024, the estimated budget in **Annex 2** is changed.

This implies the **following changes** to the Agreement:

- **Annex 2** is changed and replaced by the Annex 2 attached to this Amendment.
- The table on maximum grant amount and total estimated eligible costs and contributions in the **Data Sheet** is updated.

All other provisions of the Agreement and its Annexes remain unchanged.

This Amendment **enters into force** on the day of the last signature.

This Amendment **takes effect** on the date(s) mentioned in the amendment clause(s) (or — if no date was chosen — on the same date the Amendment enters into force).

Please inform the other members of your consortium (if any) of this Amendment.

SIGNATURES



Done in English

Enclosures: Grant Agreement Data Sheet
Grant Agreement Annex 1
Grant Agreement Annex 2

**ANNEX 1**

# Horizon Europe (HORIZON)

# 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**<br>*Grant Preparation (General Information screen) — Enter the info.* | |
|---|---|
| **Project number:** | 101075527 |
| **Project name:** | Wave Energy Demonstration at Utility Scale to Enable Arrays |
| **Project acronym:** | WEDUSEA |
| **Call:** | HORIZON-CL5-2021-D3-02 |
| **Topic:** | HORIZON-CL5-2021-D3-02-01 |
| **Type of action:** | HORIZON-IA |
| **Service:** | CINEA/C/02 |
| **Project starting date:** | 1 September 2022 |
| **Project duration:** | 58 months |

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# 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.*

WEDUSEA led by Irish Wave Energy Developer, Ocean Energy, will demonstrate a grid connected 1MW OE35 floating wave energy converter (known as the OE Buoy) at the European Marine Energy Test Site (EMEC) in Orkney, Scotland. This rigorous technical and environmental demonstration will happen over a 2 year period in Atlantic wave conditions with outcomes directly impacting policy, technical standards, public perception and investor confidence. The project will demonstrate that the technology is on a cost reduction trajectory in line with the EU SET Plan targets and will be a stepping stone to larger commercial array scale up and further industrialisation. The action will integrate sub components such as moorings and PTOs - improving efficiency, reliability, scalability, sustainability and circularity of the technology. The combined actions of the work programme are expected to reduce the LCOE for the technology from €361/MWh to €245/MWh, a 32% reduction. For a 20MW array the LCOE would reduce from €185/MWh to €127/MWh.

The project has 3 clear phases, phase 1 the initial design phase leading into a Go/No Go, phase 2 Demonstration in which it is expected that the baseline device will generate in excess of 1,650 MWh over the deployment and Phase 3 Commercialisation and Dissemination which sees the capitalisation and exploitation of the results. Ocean Energy and other consortium companies will actively exploit the results through new innovations, products and services. The results will be disseminated to feed both environmental databases and IEC electrotechnical standards.

This action will take wave energy beyond the state of the art, building on the partners experience in prior EU projects enabling arrays of reliable devices to achieve the 1GW target set out in the 2030 DG-ENER Offshore Renewable Energy Strategy. Planned engagement will create more public perception, empower and inform policy makers and de-risk larger scale investments to meet the 2050 targets.



# DATA SHEET

## 1. General data

Project summary:

| Project summary |
| --- |
| WEDUSEA led by Irish Wave Energy Developer, Ocean Energy, will demonstrate a grid connected 1MW OE35 floating wave energy converter (known as the OE Buoy) at the European Marine Energy Test Site (EMEC) in Orkney, Scotland. This rigorous technical and environmental demonstration will happen over a 2 year period in Atlantic wave conditions with outcomes directly impacting policy, technical standards, public perception and investor confidence. The project will demonstrate that the technology is on a cost reduction trajectory in line with the EU SET Plan targets and will be a stepping stone to larger commercial array scale up and further industrialisation. The action will integrate sub components such as moorings and PTOs - improving efficiency, reliability, scalability, sustainability and circularity of the technology. The combined actions of the work programme are expected to reduce the LCOE for the technology from €361/MWh to €245/MWh, a 32% reduction. For a 20MW array the LCOE would reduce from €185/MWh to €127/MWh. The project has 3 clear phases, phase 1 the initial design phase leading into a Go/No Go, phase 2 Demonstration in which it is expected that the baseline device will generate in excess of 1,650 MWh over the deployment and Phase 3 Commercialisation and Dissemination which sees the capitalisation and exploitation of the results. Ocean Energy and other consortium companies will actively exploit the results through new innovations, products and services. The results will be disseminated to feed both environmental databases and IEC electrotechnical standards. This action will take wave energy beyond the state of the art, building on the partners experience in prior EU projects enabling arrays of reliable devices to achieve the 1GW target set out in the 2030 DG-ENER Offshore Renewable Energy Strategy. Planned engagement will create more public perception, empower and inform policy makers and de-risk larger scale investments to meet the 2050 targets. |

Keywords:

- Renewable energy sources
- Wave Energy, Renewable, Utility, Marine Energy, Ocean Energy, Decarbonisation, Offshore renewable energy, Offshore technologies

Project number: 101075527

Project name: Wave Energy Demonstration at Utility Scale to Enable Arrays

Project acronym: WEDUSEA

Call: HORIZON-CL5-2021-D3-02

Topic: HORIZON-CL5-2021-D3-02-01

Type of action: HORIZON Innovation Actions

Granting authority: European Climate, Infrastructure and Environment Executive Agency

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

Project starting date:1 September 2022

Project end date: 30 June 2027

Project duration: 58 months

Consortium agreement: Yes

## 2. Participants

**List of participants:**

| N° | Role | Short name | Legal name | Ctry | PIC | Total eligible costs (BEN and AE) | Max grant amount | Entry date | Exit date |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | COO | OE | NEW WAVE TECHNOLOGIES LIMITED | IE | 917158087 | 9 717 468.75 | 6 802 228.13 | | |
| 2 | BEN | INNO | INNOSEA | FR | 941405274 | 300 937.50 | 210 656.25 | | |

| N° | Role | Short name | Legal name | Ctry | PIC | Total eligible costs (BEN and AE) | Max grant amount | Entry date | Exit date |
|---|---|---|---|---|---|---|---|---|---|
| 3 | BEN | AST | ADVANCED SIMULATION TECHNOLOGIES SL | ES | 972488245 | 948 625.00 | 664 037.50 | | |
| 4 | BEN | IEE | FRAUNHOFER GESELLSCHAFT ZUR FORDERUNG DER ANGEWANDTEN FORSCHUNG EV | DE | 999984059 | 1 011 152.50 | 1 011 152.50 | | |
| 5 | BEN | UCC | UNIVERSITY COLLEGE CORK - NATIONAL UNIVERSITY OF IRELAND, CORK | IE | 999975717 | 576 750.00 | 576 750.00 | | |
| 6 | BEN | GDG | GAVIN AND DOHERTY GEOSOLUTIONS LTD | IE | 972651302 | 226 750.00 | 158 725.00 | | |
| 7 | BEN | EXCEED | EXCEEDENCE LTD | IE | 936620361 | 129 250.00 | 90 475.00 | | |
| 8 | BEN | WOOD | WOOD GROUP KENNY IRELAND LTD | IE | 999517489 | 175 500.00 | 122 850.00 | | |
| 9 | AP | HYDRO | HYDRO GROUP PLC | UK | 953476730 | 0.00 | 0.00 | | |
| 10 | AP | EMEC | THE EUROPEAN MARINE ENERGY CENTRE LIMITED | UK | 999493239 | 0.00 | 0.00 | | |
| 11 | AP | LONG | Longitude Consulting Engineers Limited | UK | 920953115 | 0.00 | 0.00 | | |
| 12 | AP | UNEXE | THE UNIVERSITY OF EXETER | UK | 999864555 | 0.00 | 0.00 | | |
| 13 | AP | INNOLtd | INNOSEA LTD | UK | 919030866 | 0.00 | 0.00 | | |
| 14 | AP | GREEN | GREEN MARINE (UK) LTD | UK | 937081402 | 0.00 | 0.00 | | |
| 15 | AP | UoP | UNIVERSITY OF PLYMOUTH | UK | 999854661 | 0.00 | 0.00 | | |
| **Total** | | | | | | 13 086 433.75 | 9 636 874.38 | | |

**Coordinator:**

– NEW WAVE TECHNOLOGIES LIMITED (OE): from 5 August 2022 to present

## 3. Grant

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

| Total eligible costs (BEN and AE) | Funding rate (%) | Maximum grant amount (Annex 2) | Maximum grant amount (award decision) |
|---|---|---|---|
| 13 086 433.75 | 100, 70 | 9 636 874.38 | 9 636 874.38 |

**Grant form:** Budget-based

**Grant mode:** Action grant

**Budget categories/activity types:**

- A. Personnel costs
  - A.1 Employees, A.2 Natural persons under direct contract, A.3 Seconded persons
  - A.4 SME owners and natural person beneficiaries
- B. Subcontracting costs
- C. Purchase costs
  - C.1 Travel and subsistence
  - C.2 Equipment
  - C.3 Other goods, works and services
- D. Other cost categories
  - D.2 Internally invoiced goods and services
- E. Indirect costs

**Cost eligibility options:**

- In-kind contributions eligible costs
- Parental leave
- Project-based supplementary payments
- Average personnel costs (unit cost according to usual cost accounting practices)
- Limitation for subcontracting
- Travel and subsistence:
  - Travel: Actual costs
  - Accommodation: Actual costs
  - Subsistence: Actual costs
- Equipment: depreciation only
- Indirect cost flat-rate: 25% of the eligible direct costs (categories A-D, except volunteers costs, subcontracting costs, financial support to third parties and exempted specific cost categories, if any)
- VAT: Yes
- Other ineligible costs

**Budget flexibility:** Yes (no flexibility cap)

## 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/10 days before starting date – whichever is the latest |
| 1 | 1 | 28 | Periodic report | 60 days after end of reporting period | Interim payment | 90 days from receiving periodic report |
| 2 | 29 | 46 | Periodic report | 60 days after end of reporting period | Interim payment | 90 days from receiving periodic report |
| 3 | 47 | 58 | Periodic report | 60 days after end of reporting period | Final payment | 90 days from receiving periodic report |

**Prefinancing payments and guarantees:**

| Prefinancing payment | |
|---|---|
| **Type** | **Amount** |
| Prefinancing 1 (initial) | 5 139 345.11 |

**Reporting and payment modalities** (art 21, 22):

Mutual Insurance Mechanism (MIM): Yes

MIM contribution: 5% of the maximum grant amount (481 843.72), retained from the initial prefinancing

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

Interim payment ceiling (if any): 90% of the maximum grant amount

Exception for revenues: Yes

No-profit rule: Yes

Late payment interest: ECB + 3.5%

[redacted]

[redacted]

Conversion into euros: Double conversion

Reporting language: Language of the Agreement

**4.3 Certificates** (art 24):

Certificates on the financial statements (CFS):

Conditions:

Schedule: only at final payment, if threshold is reached

Standard threshold (beneficiary-level):

- financial statement: requested EU contribution to costs ≥ EUR 430 000.00

Special threshold for beneficiaries with a systems and process audit(see Article 24): financial statement: requested EU contribution to costs ≥ EUR 725 000.00

**4.4 Recoveries** (art 22)

**First-line liability for recoveries:**

Beneficiary termination: Beneficiary concerned

Final payment: Each beneficiary for their own debt

After final payment: Beneficiary concerned

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

Individual financial responsibility: Each beneficiary is liable only for its own debts (and those of its affiliated entities, if any)

Joint and several liability of affiliated entities — n/a

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

**Suspension and termination:**

Additional suspension grounds (art 31)

Additional termination grounds (art 32)

**Applicable law** (art 43):

Standard applicable law regime: EU law + law of Belgium

**Dispute settlement forum** (art 43):

Standard dispute settlement forum:

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

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

## 6. Other

**Specific rules (Annex 5):** Yes

**Standard time-limits after project end:**

Confidentiality (for X years after final payment): 5

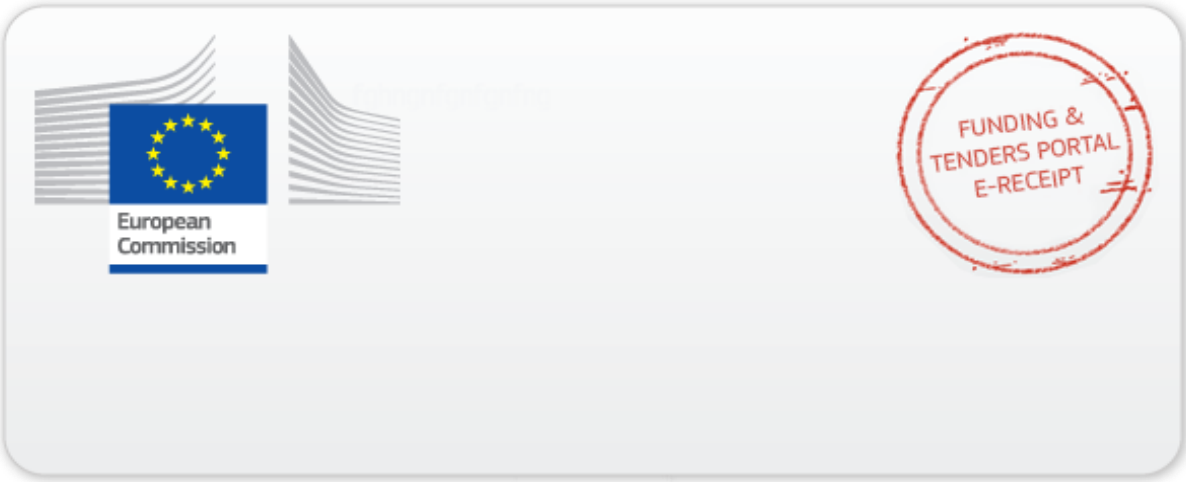
Record-keeping (for X years after final payment): 5 (or 3 for grants of not more than EUR 60 000)

Reviews (up to X years after final payment): 2

Audits (up to X years after final payment): 2

Extension of findings from other grants to this grant (no later than X years after final payment): 2

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



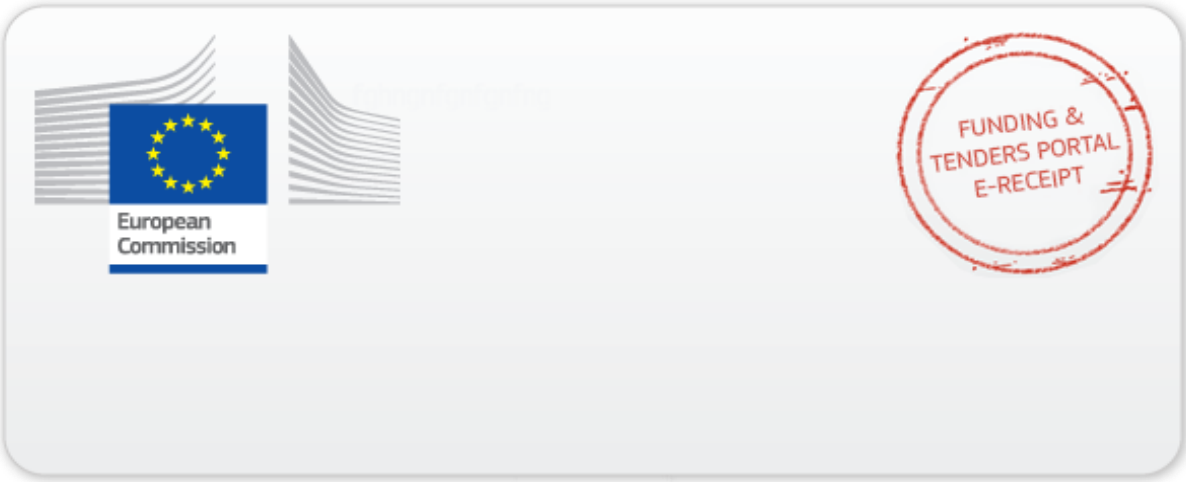

This electronic receipt is a digitally signed version of the document submitted by your organisation. Both the content of the document and a set of metadata have been digitally sealed.

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More info about eReceipts can be found in the FAQ page of the Funding & Tenders Portal.

(https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/support/faq)




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(https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/support/faq)

EUROPEAN CLIMATE, INFRASTRUCTURE AND ENVIRONMENT EXECUTIVE AGENCY (CINEA)

CINEA.C – Green research and innovation
**C.2 – Horizon Europe Energy**

[redacted]

**Subject: Horizon Europe (HORIZON)**
**Call: HORIZON-CL5-2021-D3-02**
**Project: 101075527 — WEDUSEA**
**GAP invitation letter**

Dear Madam/Sir,

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

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

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

## Invitation to grant preparation

Grant preparation will be based on the following:

1. **Project:** 101075527 — WEDUSEA
2. **Topic:** HORIZON-CL5-2021-D3-02-01 — Demonstration of wave energy devices to increase experience in real sea condition
3. **Type of action:** HORIZON Innovation Actions
4. **Project officer:** [redacted]
   Horizon Europe Energy

   ⚠ Please always use the Funding & Tenders Portal messaging function (via your Portal account). Do NOT contact us via other means (email, letter, etc.) — unless explicitly asked to do so.
5. **Maximum grant amount:**

   Requested EU contribution (according to proposal): 14 992 904.00 EUR

   Maximum grant amount (proposed amount, after evaluation): 14 992 904.00 EUR

   ⚠ Please note that the proposed amount may still be lowered during grant preparation.
6. **Project duration:** 48 months

7. **Grant preparation:**

Preparation of grant data & annexes: 21 April 2022

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

⚠ Please be aware that your proposal may still need to undergo an ethics review or security scrutiny (and the results will then have to be implemented by you).

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

Declaration of honour (DoH): 16 May 2022

⚠ Please note that each applicant should also submit a signed and scanned DoH for each one of their linked third parties.

Signature: 20 July 2022

⚠ Please note that repeated failure to respect deadlines during grant preparation may lead to the rejection of your proposal (or a consortium member). Lack of cooperation will be taken to mean that you are no longer interested.

8. **Funding & Tenders Portal**

Grant preparation (including signature) will be done exclusively through the Funding & Tenders Portal electronic exchange system (login via your Portal account). Do NOT contact us via other means (email, letter, etc.) — unless explicitly asked to do so.

Please be aware that linked third parties (if allowed) must be registered and validated as legal entities in the Portal Participant Register. ⚠ Register them immediately, if not already done.

Please note that some of your legal and financial data in the Participant Register is read-only and can be updated only by a LEAR (via the Portal My Organisation(s) page). You will therefore be contacted soon to appoint a LEAR (unless you already have one).

9. **Other**

As described in the General Annexes, successful applicants established in a country in the process of associating to Horizon Europe will not be treated as established in an associated country if the association agreement does not apply by the time of the signature of the grant agreement. The signatures of the grant agreements in this call are expected in June 2022.

⚠ The results of the ethics review are already available on the Portal (My Projects). Please be aware that the results may require action *before* signature of the agreement.

⚠ The security scrutiny for your proposal is still ongoing. The results will be made available in the Portal during grant preparation. Please be aware that they may require action *before* signature of the agreement.

ℹ For more information on grant preparation, *see the Online Manual*. You can refer to this document also for programmes other than H2020 since the procedures are very similar.

⚠ Please note that this letter does **NOT** constitute a **formal commitment for funding**. The final decision on your project will only be taken at a later stage, since it depends on the finalisation of

grant preparation and further checks which we still need to make *(for instance, financial capacity, non-exclusion, etc.)*.

For calls with a limited number of proposals to be funded: If a call can fund only a limited number of proposals, grant preparation may be moreover be stopped if other proposals move up in the ranking after a successful evaluation review and re-evaluation procedure.

I would be grateful if you could inform the other members of your consortium (if any) of this letter.

For any questions, please contact us via your Funding & Tenders Portal account.

Yours faithfully,

[redacted]

Enclosure: Evaluation summary report (ESR)