Belmont Forum Collaborative Research Action:

SCIENCE-DRIVEN E-INFRASTRUCTURES INNOVATION (SEI)
FOR THE
ENHANCEMENT OF TRANSNATIONAL, INTERDISCIPLINARY, AND TRANSDISCIPLINARY DATA USE IN ENVIRONMENTAL CHANGE RESEARCH

Instructions for Proposals 2018

A copy of the Proposal must be submitted by the Leading Principal Investigator (PI) (or the Leading PI's Institute, where appropriate, in accordance with requirements in the National Annexes) through the electronic proposal system accessible at the BFGO online portal (https://www.bfgo.org/), by the application deadline.

Leading and Partner PIs of each consortium may also be contacted separately by their national Funding Agencies, as appropriate, for detailed guidance on how to submit one copy of the Proposal through their national systems.

General guidance for all applicants:

- Further information on how to use BFGO can be found in https://bfgo.org/instructions.jsp
- The proposal must be written in English and follow the proposal structure as outlined in this document and set out in the proposal template available on the Belmont Forum website.
- Guidance on how to submit the Proposal is available on the Belmont Forum websites.
- Any supplemental documents uploaded to BFGO should be in PDF format.
- If the stated maximum number of characters (including spaces) in the different sections and/or pages is exceeded, or if the necessary documents are not included, the proposal will be disqualified.
- Non-text descriptions such as *graphic chart, diagrams, figures, etc.,* can be presented only in the two sections, 12 (Project description) and 15 (Management and monitoring), and should be uploaded into the system in a PDF format.
- Any documents other than those requested as part of the proposal will not be forwarded to External Reviewers or members of the Panel of Experts.

- Please also note that applicants, when writing their Proposal, should take into account that the proposals will be read by both topical experts and a broadly composed panel of experts.

Only one proposal template per Proposal may be submitted and must cover the following items:

1. Project title

2. a Project acronym

Please choose a short acronym.

2. b Disciplines of the project

Provide keywords on the different disciplines and expertise involved in the consortium of the project.

3. Duration of the project

Please specify the date on which the project is intended to commence. Note that implementation of the research project must start within three months of the date of the award letter. The starting date of the projects should be between 2 January 2019 and 1 March 2019. Projects are expected to be 4 years.

4. Project summary (Maximum 2100 characters; including spaces; to be suitable for public release)

Provide a brief summary clearly describing what the project is going to investigate, why it is going to investigate this subject and which results and impact are expected in plain language suitable for general audience. This summary will be published if the proposal is selected.

5. Keywords (max. 8)

Give at least three and up to eight keywords that represent the scientific, methodological and technological content of your proposal. These will be used to assist in identifying reviewers.

6. Have you submitted the same idea elsewhere or have you requested any additional grants for this project from any other institution?

Please specify whether you applied for any additional grants for this project from any other institution.

7. Summary of applicants

Give the name, Institution, city and country of the main applicant and the co-applicants.

8a. Name, affiliation and contact details of the Main Applicant

Give the name, title(s),, institution, telephone numbers, email address and postal address at which the main applicant can be reached during the whole proposal and assessment process, the date when the LPI received her/his PhD and the percentage of working time s/he will spend on the project. Specify if the LPI is participating in another proposal submitted to this Call.

8.b Name, affiliation and contact details of the Co-Applicants

Please state the Co-applicants per country. Please name only one Co-Applicant per University/Research Institution/Organisation. Other project team members should be listed under heading 5 'Other research team members'.

Give the names, title(s) and postal address at which the Co-Applicants can be reached during the whole application and assessment process. Give telephone numbers, email address, the date when the Co- applicants received her/his PhD (if applicable), institution and the percentage of working time s/he will spend on the project. Specify if a Co-Applicant is a participant in another proposal submitted to this Call. If there is more than one applicant from one country, identify the national contact point.

9. Other team members (eligible for funding)

Please give the details of all other eligible project team members participating in the proposal. Give the name, institution, and percentage of working time to be spent on the project and whether s/he is participating in another Proposal. Where the names of PhD students or Postdocs are not yet known, please include them as NN, and include any other information available.

10. Cooperation partners (not eligible for funding)

If applicable, please include here information about partners in the project who will be cooperating but are not eligible for SEI funding (see Call for Proposals for explanation). Give the name, institute, e-mail address, percentage of working time to be spent on the project and source of funding.

11. Executive summary of the project (max. 7000 characters, including spaces, add character count)

Give an overarching summary of the science-driven context and the goals of the project, with particular reference to the scientific quality of the consortium and of the proposed problem-solving research, and the innovativeness of the approach. Describe the added value to be expected from the international collaboration with reference to the specific inter- and/or transdisciplinary approach, competence and expertise of the team and the complementarities of the consortium. Explain how users have been engaged in the proposal, what are the expected deliverables (demonstrators, pilots) and the potential impact of the project to the broader community and when appropriate on society, policy, economy, etc.

12. Project description (max. 15 pages, European A4 size, including tables and figures, font "Arial", font size 11 and line spacing 1.15, excluding references) should be uploaded and should explain in clear language:

a) Background and objectives

- What is the scientific basis and context for the collaborative proposal and the present scientific, methodological and technological state-of-the-art?
- What important methodological, technological and/or procedural barriers or issues does the proposal identify and seek to address in the current full path of data use?
- How are the identified objectives and proposed research process relevant to the different topics examples in the Call for Proposals? If applicable, how does the proposal integrate across different topics?
- How the proposed collaborative research process builds on and leverages existing research practices, methodologies, technologies and standards for solving the identified barriers and issues?
- How the proposed project is embedded within current research of the consortium members (include reference to the significance of possible preliminary studies) and how it adds value to the proposed research process?
- What are the data collections and sources considered to address the science-driven proposal's objectives? How these existing data sets have been reviewed (strengths, specificity, suitability, accessibility) for the proposed research.
- In what ways will the project be transformative? What are the main theoretical, methodological and technological innovations expected from the project?

b) Research plan

- Provide an overall description and the general approach and methodology chosen to achieve the objectives and how it involves the different partners of the consortium in a co-design, co-development and co-implementation process. Highlight the relevance and the particular advantages of the methodology/approach chosen.
- Show how the interdisciplinary or transdisciplinary research strategy will integrate data, concepts, methods from the different disciplines, including data and computer sciences, and possibly e- and cyber-infrastructures providers, to address and resolve the identified barriers and issues transcending traditional boundaries and delivering solutions across more than one single scientific domain?

- How well user needs are identified and addressed (including data access and use) throughout the multi phases of the research plan?
- Break down the research plan into individual tasks, showing the interrelationship between the tasks. Explain why there is synergy between different tasks of the project and how this is going to be exploited. Remember that an interdisciplinary panel of reviewers will ultimately assess proposals so applications should be prepared in that context.
- Where the proposed work builds on previous activities, describe how this collaborative research proposal will add value complementing or building on the previous activities as well as the incremental value of the proposed work.

c) Data Management Plan (DMP)[1]

Each project awarded through a Belmont Forum CRA is required to develop and implement a Data Management Plan to ensure ethical approaches and compliance with the Belmont Forum Open Data Policy and Principles. It is important to consider data management from the inception of a project in order to plan and budget appropriately for data curation, management, and sharing. This section outlined the expectations for Data Management Plans at the stage of Proposal submission. The plan should include information about research data, information, model, software and codes, or other digital (machine readable) products being generated by the project.

Applicants are encouraged to address the following points in the Data Management Plan:

1. What datasets and other digital outputs of *long-term value*[2] do you expect that the project will produce?
2. How will you ensure that any *data security, privacy, and intellectual property restrictions* associated with datasets and digital outputs will be honoured and preserved in derivative outputs?
3. How do you intend to *manage these data and other digital outputs* during the project to ensure their long-term value is protected?
    - For example, where will the data be held during the project, who will have access, and will a specialised data manager be part of the project team?
4. How and by whom will the data and other digital outputs be *managed after the project ends* to ensure their long-term availability?

---

[1] The Data Management Plan should be included in the project description.

[2] "Long-term" means research data and digital outputs that will or may be of value to others within your research community and/or the broader research, societal and stakeholder communities.

  - For example, will the outputs be published with a Digital Object Identifier (DOI) and/or be placed in a recognised, trustworthy long-term repository or data centre, and when will this take place?
  - How will there be findable, accessible, interoperable, and reusable (FAIR principles)?
5. What *supporting documentation and other information* do you plan to make publicly available to support the longer-term reuse of the data and digital outputs?
6. Do you expect there will be any *restrictions* on how the data and other digital outputs can be accessed, mined, or reused?
  - Belmont Forum policy is that the data should be as open as possible to commercial and non-commercial users, though with managed access where appropriate and necessary, for example, if there are sensitive data involving human subjects.
  - The SEI CRA expect that data and digital outputs (methods, software, code, tools, services and their software implementation) of each funded project will be sharable and reusable across the funded projects to maximise the outcomes and add value across the projects.
7. Which member(s) of your team will be responsible for developing, implementing, overseeing, and updating the Data Management Plan?
8. How have you accounted for the *costs* required to manage the data and digital outputs to ensure long-term availability?

The DMP should outline the accessible archives, data journals, or other open repositories where these products and accompanying metadata will be housed.

d) Complementarity and added value of the Consortium (added value of the interdisciplinary and/or transdisciplinary approach)

- What added value will be gained by undertaking this research as a collaborative project[3] with the proposed consortium?
- How will the applicants and Cooperation Partners (including societal groups, policy-makers or other relevant stakeholders for transdisciplinary projects) contribute[4] to the project?

[3] The collaborative nature of a given project is not determined by the number of partners involved but in terms of multidisciplinary skills pooled to achieve an inter- and/or transdisciplinary process for the project's objectives.

[4] It is expected that unless the participation is at the level of sub-contracting for specific tasks, individual applicants will be true partners in the consortia and will contribute significantly to the development of the

- What expertise and competence do they bring to the project proposal? How well balanced[5] is their involvement and contributions in the co-design, co-development and co-implementation of the research process?
- What are the plans of the project for including early-career researchers / emerging researchers in the project activities?
- How is an equitable gender balance sought in the composition of the project team?
- When Projects involve collaboration between public research and private companies or organizations, how advantageous will be the projects' findings to both parties?

e) International cooperation

- How will the project increase synergy between teams across partner countries and how transnational collaboration adds a particular value for the project's objectives.
- How this international cooperation and collaboration might build on and leverage national investments for addressing the project's science-driven objectives?

f) Potential impact of the project

- What are the expected outcomes and impact of the research project? Who are the potential users, both academic and non-academic, of the research? What are your anticipated pathways to impact?
- In what ways will the project accelerate the full path of multi-source data use and the rates at which information is gleaned from data in interrelated global environmental challenges?
- What are the main demonstrable outputs (pilots, demonstrators, software, tools, services) expected from the project?
- How those might be translatable to other context and benefit to the broader community in a cost-effective way? What activities will be deployed to maximise knowledge exchange with potential users?

Applicants are expected to demonstrate consideration of who may be interested in the outcomes of the proposed work in their proposal. In projects where non-academic partners are participating, project leaders must submit meaningful and binding arrangements for the management of Intellectual Property Rights (IPR) issues. In the case of research that does not lend itself to knowledge utilisation as described in the aforementioned terms, the researcher is requested to explain why s/he believes that knowledge utilisation is not applicable to the proposed research.

g) References

---

project's program.

[5] Absolute balance is not sought: the specific context in partner countries has to be taken into account.

Please list the references that were cited in the proposal.

13. Timetable of the project (max. 500 words, including tables and figures, excluding spaces, add word count)

- It is recommended that milestones be presented in a detailed diagram (e.g. PERT or Gantt charts) providing the time schedule of the tasks and marking their interrelationships.
- Add when decisions on further approaches will have to be made; indicate a critical path marking those events which directly influence the overall time schedule in case of delays.

14. Dissemination and Communication (max. 500 words, excluding spaces)

- Detail how users will be engaged in the project: *who* may benefit from or make use of the research, *how* they might benefit from and/or make use of the research, and *methods* for engaging with users and exchanging/disseminating data/knowledge/skills in the most effective and appropriate manner.
- Provide a Plan to share methods, software, codes, tools, services and their implementation with the other funded projects during the SEI CRA, and to the broader community, including open source with proper licensing policy.
- Provide a strategy to demonstrate the project's solutions and how they might be translatable and of value to the broader community in a cost-effective way.
- Describe how the consortium will deal with the dissemination, publication in particular open access publication, and, protection of results generated in the project.
- Describe access rights for academic and/or non-academic research purposes to the research results, possible delay or embargo period for research results. It is expected that arrangements will be made for timely release of information and resources from publicly funded research projects.
- Plan of dissemination/knowledge exchange: describe the main target groups and how knowledge will be transferred; describe the utilisation of the developed knowledge will be realised; describe how information generated in the course of the project will be captured, stored and managed.
- Open Data Policy: describe how the project might enable and foster adoption of the Belmont Forum Open Data Principles.
- Open Science: describe how the project might enable Open science for examples through making multi-source data more findable, accessible, interoperable, reusable; sharing methods, software, tools and research practices; providing suitable provenance system.

15. Management and monitoring (max. 500 words, excluding spaces)

Please describe how the project as a whole will be coordinated and managed and how progress towards the objectives and anticipated results will be monitored and ensured.

- Outline the management processes foreseen in the project (decision boards, coordination meetings, etc)
- Clearly indicate the distribution of tasks among the consortium members.
- It is recommended that milestones be presented in a detailed diagram (e.g. PERT or Gantt charts) providing the time schedule of the tasks and marking their interrelationships; add when decisions on further approaches will have to be made; indicate a critical path marking those events which directly influence the overall time schedule in case of delays.
- Explain how information flow and communication will be managed and enhanced within the project (e.g. collaboration and task meetings, exchange of scientists, dissemination of results and when appropriate engagement with stakeholders).
- Please include a brief mention of how the project might interact with the other selected projects of the call and with the SEI task force activities that will drive the SEI CRA implementation including regular steering workshops and a knowledge hub – for sharing data, methods and good practice.
- Risk management: Indicate where there are risks of not achieving the objectives and describe potential solutions, if appropriate.

16. Ethical issues (max. 500 words, excluding spaces)

Please describe whether there are any ethical issues raised by the proposed research and/or storage of data and if so, how they are addressed appropriately and comprehensively by the research proposal and the project design.

17. Potential reviewers to avoid for direct competition reasons or conflict of interest

List the names (and provide his/her country and affiliation) of potential reviewers who, you think, should not be asked to evaluate the project for reasons of direct competition and partiality. Also provide the names of significant collaborators that should not be used as reviewers due to conflicts of interest.

18. Budget for the project

Please give a summary of the budget here, indicating the total requested funding per participating national applicant as well as the total budget requested from the SEI programme. If a Cooperation Partner from a non-eligible organisation contributes to the programme, please include their contribution in the budget. Please consider the national eligibility requirements and provide the detailed financial budget table of each participating country as an annex. The budget should include fully accurate, detailed and justified costs. For applicants from countries outside the Euro-zone, please transfer your budget to Euro and indicate the exchange rate used and the source.

19. Justification of resources (max. 1 page per funding agency, European A4 size, including tables and figures, font "Arial", font size 11 and line spacing 1.15)

Please provide a justification of resources (JoR) for each and all agencies involved in the funding request (i.e. one per participating funding agency). Justification should be provided for the overall level of funding requested in respect to the value added of the proposed research. The JoR should explain why the resources requested are appropriate for the research proposed taking into account the nature and complexity of the research proposal. The JoR should be no more than 1 page of A4 for each funding agency. One document should be uploaded, containing all JoRs.

In addition to the summary, some funding agencies require a detailed budget specification according to national funding rules. For the appropriate forms and any other questions you should contact or refer to the website of your National Contact Point (see the National Annexes and the Call for Proposals).

Mandatory annexes to the Proposal

20. Curriculum vitae of the consortium members and a publication list

Provide a short CV (no more than two pages each) of the Leading Project Investigator, Co-Applicants, Other Team Members and of Cooperation Partners if applicable. The LPI's and Co-Applicant's CV may cite a maximum of 10 relevant publications. Each Other Team Member's and Cooperation Partner's CV may cite a maximum of 5 relevant publications. The CV of the LPI should include the information on her/his experience leading national or international collaboration research projects, and when relevant interdisciplinary or transdisciplinary projects.

Please mark key publications that are directly relevant to the proposed research with an S (for "significant") at the beginning of the publication details. Please only include manuscripts that have been accepted for publication or which have already been published and are part of the recognised literature.

21. Financial budget table of each participating country as one annex.

The financial budget tables can be found on the Belmont Forum website.

22. Letter of commitment of participating Cooperation Partners from non-eligible institutions

When appropriate a letter of commitment must be included as an annex to the proposal summarising the commitment of the cooperation partner to the project and demonstrating the source of funding.

23. Supporting Letters

Please provide, if desired, letters of support from partners not listed in the proposal including stakeholder groups involved in the project. These should be uploaded as a single PDF file.

Please indicate if funding / support from external sources (including in-kind contributions) will be used to augment resources provided through the award. Please also indicate any additional support that is currently being sought, where the funding decision on that support is independent of this Belmont Forum Call.

Where funding from external sources is expected / being sought, the relationship between these various funds and the proposed project should be explained (e.g., what role do the funds play in achieving the goals and expected outcomes of the proposed project; what value will these funds add to the proposed project?).

Letters of Support should be included from these external sources of funding. Letters of Support do not need to be included where 'external funding' is coming from the Lead or Partner PI's own institution.

Letters of Support should be on headed paper and should provide information on the level of funds committed and how firm that commitment is. Where the contribution is in-kind, a monetary value of that contribution alongside details of what the contribution is should also be provided.

Applicants should provide clear evidence of how the funds requested will be used to fulfill the activities of each partner and a clear justification that the requested funds together with any funds / support provided by external sources, are sufficient to achieve the work proposed[6].

Please note that no other annexes than the ones described above may be included in the application, unless they concern annexes explicitly requested in the National Eligibility requirements. Additional annexes shall be removed.

Evaluation of the Proposals

Eligible Proposals will be evaluated by independent external referees for peer review. The reviews by the referees will be sent anonymously to the LPI and s/h will have only five working days for comments before the evaluation panel assesses the proposals. LPI will not be informed of the identity of the referees.

In the Panel of Experts (PoE), consisting of experts in the field nominated by the GPC, at least two assessors will be assigned to each Proposal. The assessments received from the external referees, the comments received from the applicant and the pre-assessment from the two PoE assessors will form the starting point for a joint review carried out by the international PoE.

The panel will prepare a consensus evaluation report on each Proposal and qualify the proposals with a score arriving at a list of projects recommended for funding.

Based on the ranking by the PoE, and taking into account the available (agency) budgets, a common funding recommendation will be finally decided at a Post-Review Meeting (PRM) between the GPC and the Chair of the PoE.

The final funding decision is subject to the approval by the SEI Partner organizations, depending on the national rules and will be made and communicated to the LPI of each Proposal by November 2018. LPIs of awarded proposals will be asked to draw up a cooperation agreement detailing the administrative arrangements in the project. The applicants will receive the consensus report of the evaluation panel as feedback after the final funding decisions. The recommendations and

[6] In relation to the 'Travel Expenses' requested to attend the Kick-off meeting, the yearly steering Task Force workshops, and the Final meeting, External Reviewers and the members of the Panel of Experts panel will be advised of the necessarily provisional nature of these requests and to view them accordingly.

requirements of the consensus have to be implemented in the project. (See also the Call for Proposals)

When preparing the Proposal it is useful to remember the Selection Criteria on which it will be evaluated – please see the Call for Proposals at the BFGO website for details.

For questions, contact your National Call Contact Points, as indicated in the national annexes (see the Call for Proposals).