

## Appendix 1 – Scope of call

VISTA-centres must be located at one of the eligible institutions listed in **Appendix 2**. VISTA funding should be seen as a contribution towards the realization of goals set by the host institutions themselves and proposals must be in line with their overall strategy and desired academic development. Therefore, the commitment and full support of the host institution is required in the selection process.

Limiting global warming will require major transitions in the energy sector. This will involve a substantial reduction in fossil fuel use, widespread electrification, improved energy efficiency, and use of alternative fuels.

With this as a background, the VISTA programme 2024-2028 aims to support science that provide fundamental insights in:

1. Energy Transition Solutions
2. Public Policies and Citizen Engagement

For each of these two research areas, VISTA will fund one centre. A detailed description of scope of call for the two centres is found below.

In addition, a VISTA Think Tank connected to VISTA workshops on these topics is planned, aimed at providing high quality, timely and independent scientific advice to support policy-making activities. This activity is expected to be coordinated by the center on Public Policies and Citizen Engagement and will come in addition to the centers core activity. Supplementary financial resources and administrative support will be provided to facilitate its successful execution. The scope and structure of the Think Tank shall be determined through collaborative deliberation between the VISTA board and the new centre. It is important to note that the Think Tank, while an additional element of the programme, should not be a focal point in the application and application process.

### Re 1. ENERGY TRANSITION SOLUTIONS

This call targets research areas that address knowledge gaps in the current Norwegian research activities on energy transition solutions. Of particular relevance to this call are one or more of the following areas: a) Artificial intelligence in the energy transition, b) Green fuels, hydrogen and e-fuels, c) Carbon Dioxide Removal (CDR), d) Holistic perspective on the North Sea (and other ocean areas) and its role in the energy transition. A detailed description of the scope for these research areas follows below.

#### *a) Artificial intelligence in the energy transition*

Artificial Intelligence may impact strategies for the net zero society both in terms of how they are shaped and how they are implemented. Today's transition pathways as presented by IPCC are largely created by Integrated Assessment Models that address both climate, earth system modelling, economic modelling and energy modelling. An open question is how AI can be used to improve modelling.

AI may also play a central role in the implementation of energy transition solutions. For example, it can play a role on the demand side management of buildings, energy system integration, market operations and more. Finally, AI, cloud computing and data centers contribute to a significant increase in energy use, thus posing a challenge to the need to reduce energy demand, i.e. green computing.

*b) Green fuels, hydrogen and e-fuels*

Sustainable and clean fuels, such as biofuels, hydrogen-based fuels, and e-fuels, have the potential to be key components in the transition toward zero emissions in transportation. Of particular relevance to this focus area is how a combination of technologies could contribute both from a value chain perspective and from an energy system perspective. Relevant topics include technology, Life Cycle Assessments, value chain design, market creation, traceability, biodiversity, and other sustainability indicators.

*c) Carbon Dioxide Removal (CDR)*

Negative emission technologies and solutions play a key role in most of the transition pathways outlined by the IPCC. These technologies need to be addressed in a broad perspective. Relevant questions are: How can technologies and solutions be scaled to gigatons of negative emissions in the next decade; how can the equipment and infrastructure needed be manufactured in a sustainable way; how will the solutions affect biodiversity; and how is the acceptance? Is it possible to create business models and markets for negative emissions that will incentivize the investments?

*d) Holistic perspective on offshore Norway and its role in the energy transition*

The ocean areas surrounding Norway, with the North Sea as a key driver, will play an important role in the energy transition. New solutions and infrastructure for hydrogen, CO<sub>2</sub>, offshore wind and offshore grids can create enormous values. At the same time, these areas contain thousands of oil and gas wells that will be plugged and abandoned, old installations and infrastructure will be repurposed, retrofitted or decommissioned. All of these actions will happen at an enormous scale in the interfaces between technology, human systems and nature. Relevant research areas include a holistic energy system perspective as well as relevant value chains in such a framework. A multi-disciplinary approach is likely to be necessary, including competence on, e.g. energy systems, biodiversity, energy technologies and public engagement.

## **Re 2. PUBLIC POLICIES AND CITIZEN ENGAGEMENT**

A green transition may be achieved through various overall policies and with different emphasis on the use of individual policy instruments. Public opinion has a substantial impact on both. In the early stages of implementation of the energy transition, one can already observe increased tensions regarding democratic legitimacy, environmental, and socio-economic costs. It is thus important to design policies that are not only efficient but can also gain public acceptance and benefit from public engagement.

Understanding the distributional consequences of climate policies along several dimensions, including the urban – rural dimension, is of significant importance in the design of an efficient green transition. An interdisciplinary inquiry that recognizes these tensions and encompasses the fields of political science, economics, and other social sciences could be of great interest.

Of particular relevance to this call are one or more of the following areas:

- a) Citizen attitudes toward new sources of energy and how to implement new energy policies,
- b) Citizen involvement in the political decision-making and the implementation process,
- c) Models or understanding of the conflict in the interfaces between growth, welfare and energy poverty,
- d) New developments in economic theory with view on growth and welfare within a sustainability framework.

## **Appendix 2 – Eligibility and how to apply**

### **Eligibility**

In addition to meet the technical requirements outlined in this call, proposals must meet all of the following criteria:

1. One dedicated principal investigator (PI) of high academic standing including leadership experience must lead each centre (minimum 30 % of his/her working hours).
2. The institution where the PI is employed must be the formal applicant and – in case of a successful application – host the new VISTA Centre.
3. Eligible applicant institutions are as follows: University of Oslo (UiO), University of Bergen (UiB), Norwegian University of Science and Technology (NTNU), UiT The Arctic University of Norway (UiT), University of Stavanger (UiS), Norwegian University of Life Sciences (NMBU), University of Agder (UiA), OsloMet, Nord University, University of South-Eastern Norway (USN).
4. The number of applications must not exceed the specified number. In cases where universities are permitted a maximum of three applications, no more than two applications may originate from any single research area. Similarly, for universities limited to two applications, each research area may contribute only one application:  
UiO 3, UiB 3, NTNU 3, UiT 2, UiS 2, NMBU 2, UiA 2, OsloMet 2, Nord University 2, USN 2.
5. Resources from the research institutions covering at least 40 % of the total budget should match the VISTA contribution.

Proposals must be prepared according to the template provided. In addition, for each proposal, the following must be attached:

- The budget sheet
- A commitment letter from the host institution describing the nature and level of its contribution to the proposed centre, especially the possibility of co-localization of the research groups. The letter must be signed at the appropriate institutional level.
- In cases where institutions other than the host institution are expected to contribute with resources to the project, a letter signed at the appropriate level of the contributing institution should be included. The letter should describe the nature of the resources to be committed and confirm institutional support of the proposal and its budget.

### **How to submit**

One copy of the proposal and the required attachments, compiled into one (1) PDF file, should be submitted to [hakon.sandbakken@dnva.no](mailto:hakon.sandbakken@dnva.no) by 12:00 (noon) on 15.3.2024.

Each applicant (PI) will receive an "acknowledgement of receipt" by e-mail shortly after the submission deadline.

Please note: The reply to this call involves the recording and processing of personal data (such as name, address, and CV). Such data will be processed pursuant to Norwegian law. The questions and any personal data requested are required to evaluate the application in accordance with the specifications of the call for proposal and will be processed solely for that purpose by VISTA. The review process requires that personal information given in the proposal must be made available to external reviewers. All such experts are required to sign and adhere to a declaration of confidentiality in this regard.

### **Appendix 3 – Selection Process and Evaluation Criteria**

Proposals will be examined to check eligibility and adherence to the technical requirements of this call. Only applications which meet all the conditions set out in this call text is eligible and will be included in the assessment procedure.

The VISTA board will be responsible for the scientific review of proposals that meet the call requirements.

External experts of high international standing will be appointed to assess and rank the proposals, one committee for each centre theme. The board will receive the expert committee's joint comments, ranking and recommendations. The PIs of each proposal may be invited to attend an interview and to present their plans for building and leading a VISTA centre.

The final decision will be made by the VISTA board, based on the evaluations provided by the external panels.

#### **Submission deadlines and indicative timetable:**

- Submission deadline March 15, 2024 at 12:00 (noon)
- Applications that meet the technical requirements will be sent to international peer review shortly after the submission deadline
- Final decision by the VISTA board – May 2024
- Signing of contracts – as soon as possible, and no later than October 2024

#### **Evaluation criteria**

Assessment of the academic quality and feasibility, including the selected research groups' academic competence and complementary contributions to the centre, will form the basis for the expert evaluation to be carried out by VISTA. Proposals must adhere to one of the two research areas of the programme. Successful proposals should be clearly interdisciplinary and document competent scientific leadership by the PI. Merit will be given to a clearly rooted international collaboration. The evaluation shall focus on the scientific quality of the proposal including plans for generation and pursuit of novel scientific ideas. The basic reference for the evaluation is:

**SCIENTIFIC QUALITY:** Novelty and scientific quality of the research proposal including

- expected research results and potential for scientific and applied impact.
- ethical considerations and how these are planned to be handled. This also includes the extent to which the principles of Responsible Research and Innovation (RRI) is integrated in the proposed research.

**INTERDISCIPLINARITY:** The extent to which the proposed research adds value to scientific domains, as well as in the interdisciplinary space.

**FEASIBILITY:** The extent to which the conceptual framework, financial framework, design, methods, analyses are appropriate for the aims of the proposed research.

**ENVIRONMENT:** The extent to which the available resources, the institutional commitment, established collaborations and any other unique features, might contribute towards the success of the proposed research. What plans have been made to promote integration within the center and to ensure co-localization of the research groups.

**INVESTIGATORS:** The extent to which the Investigators' experience, track record, training, preliminary data/past progress will contribute towards the success of the centre. Is the planned mixture of competencies and career stages commensurate with ambitious research goals? What is the gender balance and/or what are the plans to reach an accepted gender balance?

**SCIENTIFIC LEADERSHIP:** The extent to which the need for long-term strategic leadership of the centre is adequately addressed, including:

- The PIs proven track record as a scientific leader
- The PIs ambitions and plans for bridging competencies and boundaries
- Plans for long-term leadership and funding

Each of the centres must have its own scientific advisory board.

**INTERNATIONALIZATION:** How well does the proposal reflect a direction towards internationalization, for example by:

- Plans for obtaining international competitive funding
- Plans for international mobility of researchers

#### **Appendix 4 – Application form and budget sheet**

For practical reasons the application form and the budget sheet are contained in separate files. You can find both at the VISTA website: <http://www.vista.no/>