Please provide written feedback to each of the following items and an overall numerical rating.

The numerical evaluation is made with the rating scale below. The written feedback should reflect the grade given using the wording in the description of grade requirements. The final rating is made with a rating scale ranging from 6 (outstanding) to 1 (insufficient).

<table>
<thead>
<tr>
<th>Grade</th>
<th>Description of grade requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 outstanding</td>
<td>demonstrates exceptional novelty and/or innovation; has potential to substantially advance science at a global level; presents a high-gain plan that may include risks</td>
</tr>
<tr>
<td>5 excellent</td>
<td>is very good in international comparison – contains no significant elements to be improved</td>
</tr>
<tr>
<td>4 good</td>
<td>is in general sound but contains some elements that should be improved</td>
</tr>
<tr>
<td>3 fair</td>
<td>is in general sound but contains important elements that should be improved</td>
</tr>
<tr>
<td>2 poor</td>
<td>contains flaws; is in need of substantial modification or improvement</td>
</tr>
<tr>
<td>1 insufficient</td>
<td>contains severe flaws that are intrinsic to the proposed project or the application</td>
</tr>
</tbody>
</table>
### 1 Quality of research described

#### 1.1 Scientific quality and the framing of the phenomena

How does the project show high scientific quality and potential for innovative outcomes across disciplinary boundaries? How are the problem framing and the choice of disciplinary perspectives and methodologies justified? Is there a unifying principle, frame or concept that provides coherence? Does the proposal indicate synergistic or innovative outcomes from the interaction between disciplines in a solution-oriented way?

#### 1.2 Research Plan

Are the objectives sound and well-presented and is the research plan realistic? Have relevant approaches, methods, materials and research partners been identified and appropriately incorporated into the research plan? Do you consider the application multidisciplinary, and are multiple organisations and research fields included in the work packages? Is the management plan appropriate and will it support leadership, coordination, interaction and exchange of information between work packages? Does the research environment support the project, such as with appropriate research and/or technology infrastructures?

### 2 Competence and expertise

#### 2.1 Competence of applicants, quality of research collaboration

What are the merits and scientific expertise of the consortium in both discipline-based research and multidisciplinary research? Are they appropriate and sufficient for the proposed project? How does the collaboration (incl. international collaboration) contribute to the research activities and knowledge?
3 Impact

3.1 Scientific impact

What is the project’s level of expected scientific impact? Is there potential for generating impact on multiple disciplines or for advancing further learning and collaboration across disciplinary divides?

4 Responsible science

Has the applicant considered the aspects of responsible science in the application?

The Academy of Finland is committed to promoting research integrity, responsible conduct of research and the principles and practices of equality and non-discrimination and open science. See ‘Instructions for reviewing’ for further information.

4.1. Research ethics and Integrity

In case the proposed research plan raises questions concerning the principles of research ethics have they been appropriately addressed?

With the view of the fundamental principles of research integrity (reliability, honesty, respect and accountability) would you think that the proposed research is transparent with respect to its robustness, choices of value and limitations?

☐ Yes
☐ No

4.2. Equality and non-discrimination

Does the proposed way of conducting and organizing research take account of, and be sensitive to, relevant aspects of equality (such as age, gender, cultural or ethnic background, religion and social class)? Does the proposed way of conducting and organizing research recognize the views of those for whom it is harder to get their voices heard?

☐ Yes
4.3. Open science

With the view of the principles of open science does the proposed plan of managing data, explaining the research methods and dissemination of research results contribute to the free movement and use of knowledge in science and society?

☐ Yes
☐ No

4.4. Sustainable development

With the view of the sustainable development goals (understood as an effort to achieve a better and more sustainable future for all and to address the global challenges we face) is the project contributing to a holistic understanding of the interconnections between different domains of knowledge and perspectives, so that a good balance between the different social concerns and problems may be achieved?

☐ Yes
☐ No

4.5. Summary responsible science

Please provide below the main strengths and weaknesses of responsible science aspects considered in the application.

5 Overall assessment

5.1. List of main strengths and weaknesses of the project; additional comments and recommendations

Please list major strengths and weaknesses of the application as well as provide any additional comments. It is important to comment on both the strengths and the weaknesses of the application.
| 6 Overall rating | Rating (1–6) |