
European Commission's Scientific Advice Mechanism
Scientific advice on the topic **Solar Radiation Modification**
Call for Nominations for a SAPEA Working Group

September 2023

Dear Colleagues

SAPEA invites nominations for a new Working Group, which will produce an Evidence Review Report on **Solar Radiation Modification**. SAPEA will set up an international and interdisciplinary Working Group of experts, covering relevant fields.

SAPEA offers the opportunity to raise the profile of your academy's work and to provide expertise on a European level. We very much welcome, and rely on, your contribution and support through:

- Nomination of experts for the Working Group,
- Nomination of experts for an expert workshop or the peer review process,
- Submission of academy reports or other published material that is relevant to the topic and could be used as evidence.

You can nominate Fellows and Members of your academy as well as experts who are not Fellows or Members of your academy.

Please address your response to Rafael Carrascosa Marzo (CarrascosaMarzoR@cardiff.ac.uk) by the deadline of Friday 20th October. Nominations of experts should be accompanied by a detailed Curriculum Vitae, together with a short statement on how the nominee's experience meets the areas of expertise needed. We would be grateful if you could inform us whether you have checked your experts' availability before nominating them (it is not essential, but helpful to us).

Please see below for further information about the call.

Thank you very much in advance and we look forward to hearing from you,



Professor Antonio Loprieno

Chair of the SAPEA Board, President of ALLEA

Background

SAPEA is part of the European Commission's Scientific Advice Mechanism. Together with the Group of Chief Scientific Advisors, we provide independent scientific advice to European Commissioners to support their decision-making. We also work to raise awareness of scientific advice and evidence in policymaking, and to stimulate debate in Europe about these issues.

Scope

The College of Commissioners has asked the Advisors to deliver advice on the topic of Solar Radiation Modification by the third quarter of 2024. The main question to be answered is:

How to address the risks and opportunities associated with research on Solar Radiation Modification (SRM) and with its potential deployment? What are the options for a governance system for research and potential deployment taking into account different SRM technologies and their scale?

The scoping question should be addressed by reviewing scientific evidence, including from the social sciences and humanities, and considers the complexity of all aspects of the issue. The scientific advice will contribute to the definition of an EU position in international discussions on SRM governance and for the planning of EU research programmes, as well as decisions on the implementation of EU financing instruments.

The **Scoping Paper**, which contains the details of the request, can be found here:

https://research-and-innovation.ec.europa.eu/system/files/2023-08/Scoping_paper_SRM.pdf.

Process and outputs

To answer the question, the Advisors will draft a Scientific Opinion containing policy recommendations to the College of Commissioners. In order to inform this Opinion, SAPEA is requested to set up a Working Group to gather evidence relevant to the topic and to synthesise it in an Evidence Review Report containing conclusions and evidence-informed options for EU policy.

Expertise sought

Non-exclusive examples of **areas of expertise** that may be of relevance are provided below. The composition of the Working Group for the evidence review should represent the interdisciplinary expertise required:

Sciences, technology, engineering

SRM schemes and technologies (stratospheric aerosol, liquid clouds, cirrus)
Satellite observations of volcanoes and climate, clouds and climate, cirrus, radiation
Climate model evaluation (physical processes but also dynamics)
Climate attribution
Storyline approach, tipping points/scenarios
Weather and climate extremes (including response to SRM drivers)
Earth system; ecosystem responses to climatic drivers (land and ocean ecosystems)
Atmospheric chemistry (stratosphere, also troposphere)
Climate impacts of solar geoengineering (on biodiversity, marine systems etc.)

Social sciences, humanities

International (environmental and human rights) law
Juridical aspects of risk and precautionary principle
Political science and global environmental governance
Environmental economics; cost-benefit analysis and multi-criteria assessment

Sociology of risk
International climate regime and UNFCCC climate policy options
Governing novel technologies, responsible research and innovation
European climate policy (strategies, priorities)
Multistakeholder and societal engagement
Geopolitics of solar geoengineering
Science and technology studies, science - society relations
Ethics and human rights, future generations

The experts will provide their input via physical and/or virtual meetings. They are requested to produce a first draft of an Evidence Review Report by February 2024 and the final report by June 2024. A draft schedule is shown in Annex 2.

A SAPEA Selection Committee will be responsible for proposing the composition of the Working Group to the SAPEA Board. Criteria for the selection of members to the Working Group are detailed in Annex 3.

Experts selected for the Working Group will not receive any fee. Reasonable travel costs will be reimbursed by SAPEA for attendance at physical working group meetings. All selected experts will be required to complete a Declaration of Interests form that will be assessed by SAPEA before contributing to the Evidence Review Report.

If you have questions or would like further information, please email CarrascosaMarzoR@cardiff.ac.uk.

Annex 1 : Information about SAPEA

SAPEA (Science Advice for Policy by European Academies) comprises the five European Academy Networks: AE, ALLEA, Euro-CASE, FEAM and YASAS. It brings together outstanding expertise from natural sciences, engineering and technology, medical, health, agricultural and social sciences, and the humanities. We draw on over 120 academies, young academies and learned societies in more than 40 countries across Europe. SAPEA is part of the European Commission’s Scientific Advice Mechanism. Together with the Group of Chief Scientific Advisors, we provide independent scientific advice to European Commissioners to support their decision-making. We also work to raise awareness of scientific advice and evidence in policymaking, and to stimulate debate in Europe about these issues.

SAPEA is funded by the European Union.

Annex 2. Expected workload, support and timeline

Members of the Working Group are expected to:

- Meet approximately once a month, or as appropriate, between November 2023 and Spring 2024;
- Draft the Evidence Review Report by writing relevant sections/chapters of the report, based on published evidence; the first draft of the Evidence Review Report is expected in February 2024;
- Comment and review the whole report as a group at meetings and between meetings;
- Consider the results of searches of the published literature and policy landscape, carried out in coordination with the Working Group, to inform their writing;
- Write up evidence-based conclusions and suggest policy options, presented in a balanced and non-biased way;
- Respond to comments on the draft Evidence Review Report made by external experts at an expert workshop, probably in March 2024. Attendance of some members of the Working Group will be required;
- Respond to the comments made by peer reviewers of the Evidence Review Report in April/May 2024;
- Be involved in stakeholder and public engagement work (such as meetings, conferences, events), as appropriate and upon request, following delivery of the report.

In support, SAPEA staff will:

- Administratively manage the project, organise the meetings, draft the meeting minutes and follow up with agreed actions;
- Coordinate the literature reviews that will be undertaken for the Working Group;
- Undertake editorial work on drafts of the Evidence Review Report, in liaison with the Chair(s) and Working Group members;
- Organise a workshop comprised of a wider group of experts, to consider the draft Evidence Review Report;
- Coordinate a formal peer review of the final draft of the Evidence Review Report;
- Coordinate appropriate stakeholder and public engagement work associated with the topic;
- Prepare and publish the final Evidence Review Report, by Autumn 2024.

An *indicative* timeline is as follows:

Action	Timing
Selection of Chair(s)	September 2023
Literature searches	September 2023 and ongoing
Call for nominations for Working Group(s)	September-October 2023

Selection of members of Working Group(s)	October 2023
First meeting of Working Group(s)	November-early December 2023
Subsequent meetings of Working Group(s)	January-June 2024
First draft of Evidence Review Report	February 2024
Expert workshop to consider first draft	March 2024
Peer review	April-May 2024
Final draft of Evidence Review Report	June 2024
Publication of Evidence Review Report and Scientific Opinion	Autum 2024 (Q3)
Outreach and promotion	Autumn 2024 onwards

Annex 3. Criteria for selection of members to the international Working Group

A SAPEA-appointed Selection Committee will select the experts according to demonstrated excellence in one or more of the fields listed in the Call, and other criteria such as:

- Interdisciplinarity, all relevant disciplines should be included (see indicative list of expertise)
- Wide geographical coverage of Europe including Widening Countries¹
- Participation of underrepresented gender in SAPEA Working Groups of at least 40%
- Inclusion of early- and mid-career researchers
- Commitment and time-availability.

There should be a good diversity of expertise, ranging from highly focused specialists to generalists, from well-established to early-career stage, and as socially, culturally and gender balanced as possible.

Please note that nomination does not guarantee selection to the Working Group. The average success rate is around 20%.

SAPEA Working Group members will need to fill in the Standard Declaration of Interests form of the European Commission. Further information about SAPEA Quality Assurance Procedures can be found here: <https://sapea.info/about-us/quality-assurance/>

¹ According to the Horizon Europe regulation the Widening Countries are: Bulgaria, Croatia, Cyprus, Czech republic, Estonia, Greece, Hungary, Latvia, Lithuania, Malta, Poland, Portugal, Romania, Slovakia, Slovenia and all associated countries with equivalent characteristics in terms of R&I performance and the Outermost Regions.