



Scientific Advice Mechanism

From questions to answers

**How the European Commission's Scientific Advice Mechanism
produces scientific advice to support policy making**

This guidance document explains the interactions between the various components of the European Commission's Scientific Advice Mechanism ('SAM') in the production of scientific advice. These components are the Group of Chief Scientific Advisors, the Science Advice for Policy by European Academies (SAPEA) consortium, and the SAM secretariat. It is primarily directed at those involved in requesting and producing advice. It therefore assumes some reader familiarity with SAM and its structure and function (further details on which are available from the SAM website).

The mandate of SAM is to provide high quality and independent scientific advice to the European Commission on matters of importance to Commission policy making, in as transparent and unbiased a manner as possible. Depending on the nature of the advice requested, and the differing subjects and timelines, it is necessary for SAM to be agile and flexible in its approaches. It is for these reasons that this is a guidance document, the contents of which may evolve based on continuing efforts better to achieve SAM's goals.

1. Identification of a subject for scientific advice

According to Article 2a, paragraphs 1 and 2 of the Commission Decision (16 October 2015¹) on the setting up of the Group of Chief Scientific Advisors ('the Advisors'):

1. The Commission may consult the Advisors at any time on any policy field, defining the timespan in which independent scientific advice is required and;
2. The Advisors through their Chair may advise the Commission at any time to consult the Advisors on a specific policy issue which it deems relevant. This may for instance be the case when the Advisors become aware of new scientific evidence or technological developments and/or where they anticipates an up-coming need for scientific advice.
3. In both cases, requests should address specific issues where such advice is critical to the development of EU policies or legislation and does not duplicate advice being provided by existing bodies².

Members of the Commission may initiate the process through a request to the Commissioner for Research, Science and Innovation. Such requests should detail the subject, the purpose (i.e. to provide scientific advice/ recommendations based on existing scientific evidence or to explain the available evidence on a given subject), EU policy relevance and the requested time frame for the delivery, and describe why the request is addressed to the Advisors as science advice structure.

The Commissioner for Research, Science and Innovation then informs the Advisors that there has been a request for scientific advice on a specific topic.

¹ https://ec.europa.eu/research/sam/pdf/c_2015_6946_f1_commission_decision_en_827417.pdf

² The avoidance of duplication is of particular importance in relation to EU regulatory agencies, the function of which is primarily to provide regulatory scientific advice.

The Advisors may also request to initiate that process by proposing that the Commission requests scientific advice from SAM. The suggestion can be inspired by topics suggested by the consortium of the 'Scientific Advice to Policy by European Academies' (SAPEA³) project. The request should have contents similar to the request coming from the Commission and addressed to the Advisors (described above). Elements relating to timing and policy relevance may require further discussion with the Commission, and the Advisors may instruct the Unit to prepare descriptions of the policy context as necessary.

The SAM Secretariat will facilitate through the Cabinet of the Commissioner for Research, Innovation and Science communication of these requests between Members of the Commission and the Advisors. The SAM Secretariat also informs other Commission services through the dedicated Inter-Service Group ('ISG').

2. Defining the question

The Commissioner for Research, Science and Innovation is responsible for the formulation of the request for advice following a consultation request originating in the Commission. This request for advice defines the questions to be addressed by the Advisors in the form of a scoping paper⁴.

The SAM Secretariat contacts the relevant Commission services through the above-mentioned ISG in view of preparing a scoping paper for the Advisors. The purpose of the scoping paper is to provide greater detail on the request for consultation and the question(s) on which advice is to be provided.

More specifically, the scoping paper develops the reasoning for the request, describes the main issues at stake, the EU policy context, the requirements for evidence, frames the questions to be answered by the Advisors and indicates the date by when the product is to be delivered. The scoping paper also specifies the kind of product requested, i.e. a scientific opinion, an explanatory note, or another kind of product.

The SAM Secretariat co-ordinates the development of the scoping paper with the service(s) under the Commissioner who initiated the subject, involving also other relevant services. Comments from the relevant Commission services will be taken into consideration only to ensure factual correctness and relevance regarding the policy and regulatory context. In cases where a subject has been suggested by a Member of the Commission who is not directly responsible for a service (such as a Vice-President), as well as in cases where the Advisors recommended that the Commission consult them on a specific policy issue (possibly in consultation with SAPEA) and where the Commission did follow up with a consultation request, the relevant service(s) is (are) suggested by the Cabinet of the Commissioner for Research, Science and Innovation following consultation with the SAM Secretariat.

³ <https://www.sapea.info/>

⁴ See examples on the SAM website.

The SAPEA consortium will by default contribute to the scoping paper development when the topic at stake arises as a result of a SAPEA suggestion or may otherwise be invited to do so at the discretion of the Commission.

The Cabinet of the Commissioner for Research, Innovation and Science consults the relevant Cabinets of the Members of the Commission on the final draft scoping paper. If agreed, the Advisors are notified by the SAM Secretariat.

Requests for advice as set out in the corresponding scoping paper will by default be added by the Chair of the Advisors to the agenda of the subsequent Advisors' plenary meeting in view of discussing the request with the relevant Commissioners or their representatives. If the subject requires urgent advice (i.e., within a short deadline) the Advisors will have an exchange by written (email) procedure which will be reported by the Chair during the next meeting of the Advisors and recorded in the minutes of that meeting.

The Advisors may suggest that the request is (re-)focused, that timing or precise questions are modified, or that a scoping paper is sent back to the Commission for further clarification. In such cases, the Cabinet of the Commissioner for Research, Science and Innovation will inform the other Cabinets of the Advisors's suggestion and collect their feedback; the SAM Secretariat will do the same with Commission services via the ISG. The SAM Secretariat will then inform the Chair of the Advisors whether the Commission agrees to the suggestions of the Advisors and/or provide the clarifications needed.

In parallel with the development of the scoping paper, the SAM Secretariat will assist the Advisors in deciding how the work will be organised in operational terms, including the identification of tasks to be carried out by the SAPEA consortium. The collection and presentation of the relevant scientific evidence (evidence review), which often includes consultation with experts in the field through expert workshops, is by default undertaken by the SAPEA consortium, unless agreed otherwise with the Advisors and SAM secretariat.

Irrespective of the origin of a scoping paper, the final decision to adopt a scoping paper lies with the Commissioner for Research, Science and Innovation in cooperation with the Advisors. The Advisors may suggest the prioritisation of Commission requests, taking due consideration of the capacity of the Advisors, SAPEA and that of the SAM secretariat.

3. Gathering evidence

Once the scoping paper with the related deadline has been adopted, the Advisors rapidly appoint a lead member and may set up a dedicated coordination group, which is a meeting of the Advisors in a different format. The lead member/coordination group asks the Commission (SAM secretariat) to allocate responsibility for the evidence gathering to SAPEA or (in exceptional cases) asks the SAM secretariat to be responsible for the evidence review, or to share responsibility with SAPEA. The lead member/ coordination group prepares the Advisors' advice, and is supported by the other Members of the Group of Chief Scientific Advisors, the SAPEA consortium, and the SAM Secretariat. The Advisors' advice is accompanied by a methodological statement on the evidence gathering and the development of the advice.

The Advisors consider as admissible only evidence which is publicly accessible at the time of publication of its scientific advice.

Depending on the subject matter, the evidence gathering process may include elements of the following, non-exhaustive list, intended to cover all relevant disciplines:

- Searching the relevant scientific literature;
- Collecting reports produced by the European academy networks or their respective Member academies (a translation may be required to make these accessible);
- Consulting the JRC on existing data and reports as well as ongoing activities;
- Consulting DG RTD on the intermediate or final results of relevant ongoing or finalised EC framework programme-funded projects and initiatives;
- Consulting other Directorates-General of the Commission involved in the subject, most notably those that contributed to the scoping paper, on evidence they possess;
- Consulting the EU Agencies on existing data and reports, as well as ongoing activities, in consultation with the relevant Commission services;
- Consulting other evidence providers and science Advisors, including those in EU Member States and beyond;
- Eliciting expert opinions, e.g. through dedicated workshops.

The collection and review of evidence will by default be carried out by the SAPEA consortium, and appropriately documented and stored. If SAPEA cannot provide an evidence review or any other part of the work they are asked to perform, either internally or through subcontracting, SAPEA will inform the Advisors through the SAM secretariat without delay, and alternative arrangements made.

SAPEA produces Evidence Review Reports (ERR) following methods developed with SAM to ensure the highest quality standard in order to minimise bias, improve efficiency and ensure transparency. SAPEA ERRs may, in addition to the review of the evidence, identify policy options. The ERRs inform the Advisors' Scientific Opinions (or other kinds of products), which respond to questions set out in the scoping paper, for example through observations and recommendations for policy making.

Expert workshops which are part of the evidence review process are by default organised by SAPEA. In selecting experts for workshops, SAPEA pays due attention to diversity (of scientific views, geographical balance, gender balance, as well as including young scientists).

The Advisors are invited to take part in the expert workshops.

In addition, the lead member or the dedicated Advisors' coordination group mentioned above may choose to consult relevant experts through hearings or meetings, to organise dedicated workshops, to visit relevant laboratories, etc. Depending on the subject and the time frame, the Advisors may also choose to meet relevant stakeholders from governments, non-governmental organisations, and/or civil society.

The Advisors chair and lead the stakeholder workshops, which are information events organised close to the publication of the Scientific Opinion (or, if applicable, other kinds of products). They are organised by the SAM unit on behalf of the Advisors. SAPEA representatives are invited to take part.

SAPEA and the SAM Secretariat ensure the proper keeping of the record(s) of all evidence gathered, including the source (institutions and persons involved) and time of gathering, in order to ensure transparency.

To this end the Members of the Group of Chief Scientific Advisors will inform the SAM Secretariat of all contacts made and information received in the framework of the evidence gathering and science advice process. All information should be stored in a manner which permits access on the basis of a request for access to documents pursuant to Regulation 1049/2001⁵.

4. Drafting the advice

In view of the evidence, the lead member/coordination group will draft the Advisors' advice, also explaining existing uncertainties as well as minority views in science, if considered relevant. Each scientific opinion should follow a similar format, including in general an executive summary, a description of the issue, the policy context and the methodology used, a discussion of the options (if appropriate), a set of conclusions, providing science advice. Explanatory notes have a similar structure but do not make recommendations to policy and will not include a discussion of options. The SAM Secretariat will assist the preparation, proof-reading, editing and formatting of the advice. Other Members of the Group of Chief Scientific Advisors may be invited to contribute.

The draft advice shall be presented to the relevant Commission services prior to its adoption by the Advisors. The purpose of this presentation is to ensure that the report answers the questions asked, to ensure factual correctness regarding the policy and regulatory background and that any necessary clarification can be sought from the Advisors.

⁵ Regulation (EC) no 1049/2001 of the European Parliament and of the Council of 30 May 2001 regarding public access to European Parliament, Council and Commission documents

Following these consultations the lead member/coordination group will ask Advisors Members for their final comments, and then submit the final draft to the Chair of the Advisors and the SAM Secretariat in view of its inclusion on the agenda of the next meeting (or adoption by written procedure).

5. Adopting and communicating the advice

The Advisors will aim for adoption by consensus of its advice. A dissenting opinion by any member(s) of the Group of Chief Scientific Advisors will be noted.

Once adopted, the Chair of the Advisors will send the advice to the Commissioner for Research, Science and Innovation who will transmit it to the other Members of the Commission, including to the President. The Director-General for Research and Innovation will inform the relevant services.

The SAM Secretariat will publish the Advisors' advice on the SAM website once it is adopted and handed over to the Commissioner for Research, Science and Innovation by the Advisors, along with (or incorporating) the evidence (or appropriate references to the evidence) that was used as a basis for the advice. Depending on the subject matter, a printed version might also be envisaged. Likewise, the Commission may consider issuing a news alert or press release, as appropriate, which should be published on the same day the advice is uploaded on the SAM website. A citizen's summary may also be produced in order to inform the non-specialist public.

The input provided by the SAPEA consortium can be published independently of the Advisors' advice, in co-ordination with the Advisors, and it should refer to the Advisors Scientific Opinion, or other relevant Advisors products.