

Minutes ESAF-4

27-6-2018

9:00 - 14:00

Host: Tarmo Soomere

Chair: Wim van Saarloos

Participants:

Denmark	Jens Oddershede, Karin Kjaer Madsen
Estonia	Tarmo Soomere, Maarja Kruusma, Rein Vaikmäe
Finland	Erja Heikkinen
Ireland	Mark Ferguson, Emer O'Driscoll
Netherlands	Wim van Saarloos, Frans Brom, Anne-Greet Keizer, Erik van de Linde
Poland	Janusz Bujniciki
Romania	Octavian Mădălin Bunoiu
Slovak Republic	Jaromir Pastorek
Slovenia	Marko Topić
Sweden	Sven Stafström
Switzerland	Gerd Folkers
Wales	Peter Halligan
SAM/GCSA	Janusz Bujnicki; Johannes Klumpers; Iphigenia Pottaki
European Commission	Keith Sequeira

Regrets:

Austria (Anton Zeilinger), Belgium (Didier Viviers, Joos Vandewalle), Bulgaria (Ivan Dimov), Czech Republic (Jiří Drahoš), France (Marion Guillou), Germany (Jörg Hacker, Stefan Artmann), Greece (Achilleas Mitsos), Italy (Luigi Nicolais), Latvia (Jānis Kloviņš), Lithuania (Valdemaras Razumas), United Kingdom (Patrick Vallance).

1. Welcome and introductory round

The chair welcomed all participants and thanked the host. He explained, for the new members, the role of The Netherlands as coordinating country until 2020, after which another country will take over. All attendees introduced themselves briefly. The chair concluded that the introductions illustrate the diversity of science advice in Europe. He continued that the prime value of ESAF is to function as a network for exchange of science advice practices and to help each other.

2. Adoption of the agenda and actions following ESAF-3

An agenda-item on 'reflective practices', to be considered for ESAF-5, was added before the item on 'Making sense of science'. The agenda was subsequently adopted. The minutes of ESAF-3 and the Terms of Reference have been approved previously by e-mail. Anne-Greet Keizer (secretariat) provided an explanation on the actions following ESAF-3:

Additional members. The secretariat has invested in finding additional members, with help of the

SAM-unit. ESAF welcomes new countries (Italy, Poland, Switzerland) and new members (Belgium, Lithuania, United Kingdom). Some nominations are pending (Cyprus, Malta and Spain), and for some countries ESAF received no nominations (Croatia, Hungary and Luxembourg). With the 'proposal on membership' to be discussed later in the meeting, it was underlined that ESAF-members of EU-member States are in principle requested by the European Commission through their permanent representations in Brussels and appointed by their respective governments. In practice a request does not lead to a nomination, and in other cases, ESAF may take action itself. Such actions were agreed upon for Croatia, Hungary, Luxembourg, and in addition for non EU member states, Norway and Iceland. Members are invited to suggest candidate members for these countries to the secretariat.

Stakeholder meetings of the Group of Chief Scientific Advisors (previously called High Level Group). In the past year SAM has continued to inform ESAF, through its secretariat, about stakeholders' workshops and other information in relation to topics SAM has been working on, and request ESAF members to express interest to be invited to take part. No explicit invitation to ESAF has been sent out. The SAM-unit offered to distribute a program of upcoming events that could be of interest to ESAF members through the ESAF secretariat.

Feedback to the Group of Chief Scientific Advisors' reports. There were no reports of ESAF members providing feedback on reports.

Engaging EU commissioners. There were no reports of ESAF members engaging with their EU commissioners.

WIKI. The coordinating country has, in consultation with the SAM-unit, decided that a dedicated website would serve ESAF's purposes better than a WIKI. The website design was shown and was expected to be online after the summer of 2018. Members were invited to provide open content and share open information for the website. The chair drew attention the new logo in the EU-colours yellow and blue and its symbolic green coloured overlapping area.

Actions

- *The coordinating country will, in consultation with ESAF members, undertake to identify additional members from Croatia, Hungary, Luxembourg, Norway and Iceland;*
- *An overview of upcoming SAM-events will be distributed through the ESAF-secretariat;*
- *The ESAF website will be put online after the summer.*

3. News from the European Commission and the Scientific Advice Mechanism

Keith Sequeira, Senior Adviser and Member of the Cabinet of Commissioner Moedas, and Johannes Klumpers, Head of the SAM-unit, reported.

SAM maturity. A clear picture has emerged that there is no standard model for science advice within the EU. The existing models are not mutually exclusive and SAM has brought many of them together. SAPEA is now a well-functioning element of SAM. The renaming of the High Level Group to 'The Group of Chief Scientific Advisors' to the European Commission (GCSA) underlines the maturity of the mechanism as well as the high level of interaction between GCSA and the European Commission. SAM has been effective and has settled well within the European Commission.

Portfolio change. The first activities of SAM were exclusively focused on science-for-policy advice requested by various commissioners, for instance relating to energy, environment, cybersecurity, health and food, and directly regarding regulations or policy directives. At this point the European Commission has reached a stage where there are no new regulations or policy directives pending for

this Commission, except long term energy strategy, for which the recent advice on carbon capture and usage will be used. As a result the portfolio of SAM has changed to include more room for own initiatives, such as 'Making sense of science' (see below).

SAM and ESAF. Commissioner Moedas regards ESAF as an important link to national science advice mechanisms. Feedback from ESAF to SAM is therefore important for the European Commission. In this respect it is appreciated that ESAF's membership is open to additional countries. Defining a good question for SAM – that is, a question that can be answered from a scientific evidence perspective – is a challenging task that may require months. Science advisors should also state openly that questions cannot always be answered from a scientific perspective. Interaction between SAM and ESAF regarding national policy debates may prove beneficial in defining answerable questions as well as in increasing the relevance of SAM's deliverables for EU member states and ESAF members.

New SAM-initiatives

- Making sense of science. GCSA initiative, to be discussed in more detail below;
- Transforming the future of aging. Driven by SAPEA with strong involvement of Switzerland;
- Microplastics. Follow-up from 'Food from the oceans';
- Sustainable food systems. This initiative will take time to get well defined, in consultation with a large number of other organisations such as IAP, EASAC, FAO and IIASA, in order to find a niche with added value.

International emerging landscape of science advice

Several additional and relatively new initiatives are underway that illustrate that, on a global level, a structure of science advice is emerging:

Foreign Ministries S&T Advisors Network. FMSTAN was started in 2016 by the U.S. Science and Technology Advisor to the Secretary of State at the National Academy of Sciences in Washington, D.C. Country wise, there is partly overlap of FMSTAN membership with ESAF membership. FMSTAN is restricted to Foreign Ministries.

The International Network of Government Science Advice. INGSA was started in 2014 by Peter Gluckman, at that time CSA to the Government of New Zealand. INGSA acts under the auspices of the International Council for Science.¹ Now that Gluckman has been succeeded as New Zealand's CSA, he can dedicate more time to INGSA. One of his goals is to realize regional chapters of INGSA. What could be the role of ESAF in relation to this? For example, could ESAF act as a European chapter?

Discussion

- An important observation indicates strong demand from policy makers for independent science advice. There is a lot of interest from many EU Commissioners. A forward looking agenda of at least a year has provided a useful basis for cooperation and discussion between the European Commission and the GCSA;
- There should be no connection between SAM and the missions in Horizon Europe, thus preventing the GCSA from being perceived as a lobby group - to the detriment of the quality of policymaking. It is a virtue for science advisors to not simultaneously address the need for more research (budget) and provide science advice²;
- With respect to Horizon 2020 and Framework Programs in general, SAM has not yet fully utilized the scientific evidence that is available in the European Research Area (ERA). Policy for science is also an important area of attention, such as the Open Science policy, among others since access

¹ The International Council for Science (ICSU), and the International Social Sciences Council (ISSC), will merge in July 2018 to form the new International Science Council (ISC).

² The keynote speaker at the preceding dinner (26-6-2018), Siim Kallas, also made clear that politicians have difficulty with science advisors 'asking for more money or for more research'.

to scientific information is a lifeline for SAM itself;

- FMSTAN is focusing on science diplomacy as opposed to science advice – not necessarily a fruitful angle of approach for ESAF. While INGSA is very important, it focuses primarily on the UN sustainable goals, which is different than ESAF's focus. It remains to be determined how ESAF could be complementary to INGSA. At the introduction of the SAM-unit, the coordinating country will take this up with INGSA. The upcoming ESOF in Toulouse may provide an opportunity for this. [INGSA's 3rd global conference](#), to be held in Tokyo, 6-7 November, 2018, may provide another opportunity.

Actions

- *The coordinating country will connect with INGSA to discuss the complementarity of both networks.*

4. Reflection on the dinner discussion

During dinner (26-6-2018) a mix of ideas has been suggested regarding science based strategic policy advice:

- Collect examples of science advice practice, good as well as bad, in order to turn these into lessons learned and do's and don'ts;
- Work with policy makers to understand their positions and needs;
- Try to work on concrete relatively short term issues, based on shared value;
- Engage with foreign experts to collect independent voices;
- Create platforms for science-society interaction;
- Do not mix providing science advice with advocating more research and lobbying for research funding.

This resulted in possible contributions for ESAF:

- Collect examples that can also be input for 'Making sense of science';
- An interactive session based on best practices at the next ESAF meeting;
- ESAF secretariat and SAM office can facilitate (bilateral) exchange of expertise and mutual learning;
- Meet twice a year instead of once.

Discussion

- Engaging the public is an important and challenging topic, which is also true for Citizen Science in general. The interface between science and the public however needs thorough consideration;
- More attention is needed for the 'receiving end' of science advice – policymakers and politicians. At a next meeting, ESAF could dedicate a section to this by inviting one or more experienced 'customers';
- Greater awareness of ESAF's existence and role is needed. ESAF should advertise its remit and science-for-policy purpose, highlighting the merits and marshalling the importance of scientific evidence for policy. ESAF can offer information on different science advice models that are not mutually exclusive, offering a choice for countries. ESAF can show how decision making can go wrong without science advice³ and how evidence can be better synthesized for policy;⁴
- Regarding best practices the participants briefly discussed the science advice contribution of the five big consulting companies as well the observation that strong governments run strong institutions for science advice – often organized by sector (health, energy, food, transport, foreign relations, economy, etc). The Estonian Academy of Sciences is planning a conference in Tallinn on 22-23 October on the role of academies in science advice (with Robert Jan Smits);

³ <http://pubdocs.worldbank.org/en/905081482349908115/Main-Messages-English.pdf> (mentioned by Peter Halligan)

⁴ <http://www.nature.com/articles/d41586-018-05414-4> (mentioned by Mark Ferguson)

- It was decided to rather organize one excellent meeting annually than two maybe lesser meetings per year. However ESAF members may use the opportunity of other activities such as ESOF and INGSA to meet.
- In addition to the conclusions listed above, the importance of the receiving end of science advice was stressed: how do we optimize our advice for the politicians that we aim at. It was suggested that ESAF should strongly pay attention to this.

Actions

- *The coordinating country will send out a template in the fall for short write-ups of 1-3 national practices of science advice (both good and bad), and will collect them as input to the SAM-project on 'Making sense of science' (see below) and also use these as input for the next ESAF meeting.*

5. Proposals on: 1) membership, 2) translation, 3) host ESAF-5

Membership. The proposal on membership was briefly introduced by the chair, who explained that this proposal was a result of interest to join ESAF from non-EU countries and from the regional level. While many members are formally appointed by their governments, ESAF aims to facilitate open and inclusive exchange of information and practices. The meeting agreed that the practice of EU-ESAF-membership requests by the European Commission (as discussed earlier) should be continued, as it secures the required government backing. A rule in the proposal for a fixed duration of personal membership (for instance 3 years) to strengthen the position of the advisor in relation to his government was seen as in conflict with this national backing. The membership rules proposed by the coordinating country to accept new countries as members and interested parties as guest were considered to be simple and flexible enough to deal with various situations. They were adopted with the suggestion to evaluate their functionality in 2020; if ESAF continues to grow, the maximum size of delegations may have to be reconsidered. After the adoption of the proposal, Gerd Folkers was formally welcomed as Switzerland's member of ESAF and Peter Halligan was formally welcomed as guest of ESAF.

Translation. Only a few advisory reports have been offered for translation through the questionnaire sent out by the secretariat. Both papers of the Estonian Academy of Sciences on 'focusing academies on science advice' will be considered for translation. The SAM-unit offers facilities for translation on a case-by-case basis. ESAF is very grateful for this. Requirements and conditions for translation will be discussed between the SAM-unit and the coordinating country, and communicated to the members. Additional offers of advisory reports to be translated are welcome.

Host ESAF-5. Several countries have offered to host ESAF, which is highly appreciated. After careful consideration the coordinating country proposed to ask Ireland to host ESAF-5 in June 2019. The proposal was welcomed and agreed. A save-the-date message will follow soon.

Actions

- *ESAF-membership and participation will be evaluated in 2020;*
- *The coordination country and the SAM-unit will discuss requirements and conditions for translation of advisory reports;*
- *Ireland will host ESAF-5.*

6. Presentation by Maarja Kruusma (Professor of Biorobotics): 'IT Technology and society in Estonia: the lessons learned and yet to come?', followed by discussion

Maarja Kruusma gave an inspiring presentation, highlighting that Estonia has had the relative advantage of starting from scratch when designing innovative digital services for Estonian civilians, as opposed to demolishing and/or digitizing existing 'analog' services and legacy systems. The presentation was centred around the personal smart card that is extremely appreciated by

Estonians – to the level that the national elections primarily turned out to be about keeping the card. Designing and managing the card is a complex challenge as it offers many interfaces, varying from health services to the library. In theory the card is crackable, but the return on investment in cracking is negative. Trust is an important aspect of running the card system and architecture successfully as the user shares personal data with authorities. This is quite remarkable in a formerly authoritarian country and represents an important potential research topic for social scientists, as engineers (such as the presenter herself) do not know how belief - or trust systems work.

The chair thanked the speaker for eloquently bridging technology and society, and, referring to the issue of trust or belief, acknowledging that scientists sometimes just do not know the answer.

Invited reactions. Marko Topic thanked the speaker for taking the audience on a journey into digitalisation. Countries could follow Estonia for instance regarding e-voting, e-banking and e-health. Cybersecurity is a very relevant topic regarding public trust. Young people should not take these systems for granted and curricula should be put in place to teach new generations. Gerd Folkers addressed the issue of the culture of democracy and subsidiarity versus the need for structured management of e-systems. He illustrated that questions arise in for instance transportation (smartphone connects to autonomous car: who is responsible for software upgrades?) and life-sciences (medical researcher uses a digital microscope, sees augmented images of cells through proprietary algorithms – not real images – and is subsequently automatically referred to a database of known cancers – linking a molecular event to a disease phenomenon, thereby creating an ontology).

Maarja Kruusma responded that there is too little attention for data and semantic interoperability. Block chain might be a solution, but that would create a ‘sensor all over the globe’. What if that sensor is hacked? Hugely complex software systems are being put together that cannot be managed. Within five years data integrity as well as the quality of software will be the number one topics.

Discussion

- Software and hardware maintenance must be designed in all products and services, particularly regarding the internet of things;
- Digitalisation may lead to a digital divide between haves and have-nots. In a new and less-diverse democracy such as Estonia, this is maybe not as apparent in as in older economies;
- Estonian experiences cannot be simply copied to other countries;
- Trust (‘the oxytocin level in your blood’; ‘the sum of good intentions and competence’), accepting risk, statistics – they all relate to belief systems, which greatly differ between cultures;
- Science advice may try to keep away from statistics by identifying options instead of chances.
- A next goal of digital services could be to be pro-active, for instance to turn parents who’s newborn child has Down’s syndrome, to dedicated help;
- Math, not computation, is badly needed for improved digitalisation;
- Identifying lack of knowledge and thereby accepting vulnerability is required both for digitalisation processes as well as for science advice.

The chair thanked all participants for the lively discussion and the speaker for enticing it.

7. Reflective practice at ESAF-5

The chair gave the floor to Frans Brom, who proposed that the collection of ‘write-ups’ on national science advice practices (see actions under agenda item 4) be used for a reflective practice (not ‘a course’) at ESAF-5. He proposed to, depending on the input, focus the practice on one element, for instance the scoping phase, and organize a twin lecture of an academic and a policy expert on the

same issue. The exercise could take half a day, in which also national staff⁵ of the members of ESAF could participate. This way, ESAF-5 could still be concluded at a time allowing return flights from Dublin in the evening. Members were invited to send in cases and think about who to bring from their organisation or country to the meeting next year.

8. 'Making sense of science under conditions of complexity and uncertainty'. Introduction by Johannes Klumpers, followed by discussion

Johannes Klumpers explained that this topic is different from all the other topics of SAM so far and is also directed at those that receive advice. It will partly be based on the existing body of literature. In addition, it is being considered to collect evidence through interviews and case studies. It will also address various systems and models of science advice, such as the CSA-system as well as dedicated advisors for specific topics such as food safety, nuclear safety, acting in crises, regulatory contexts, etc. GCSA will discuss in July 2018 the development and methodology of the project. The SAPEA working group chairperson has already been determined⁶ and a call for nominations of experts has been sent out. Contributions of ESAF as discussed (collection of national practices) are welcome. The SAM-unit needs time to prepare inputs for this part of the report, so a first contribution in December 2018 would be highly appreciated. ESAF-5 could be used for reviewing a draft as well as to contribute through the outcome of the reflective practice.

Discussion

- The text of the scoping paper seems to be oriented predominantly on natural sciences, a slightly skewed perspective that can be observed in other occasions as well.⁷ It would be advisable to also benefit from the perspective of social sciences and humanities in order to incorporate religious beliefs, historical developments etc. that are also strongly needed for coping with, solving, and preventing problems. GCSA has already discussed this issue with the European Commission: SSH will not be absent;
- In the interviews as well as in the cases studies, the 'receiving end', policymakers and politicians, should be equally engaged as science advisors;
- In the end, the project comes down to the question: what works in science advice, and what doesn't. This should include an analysis of the policy support unit as well.

9. Wrap up and transportation to the airport

The chair once again thanked the host for the hospitality. He also thanked the secretariat for preparing the meeting.

⁵ There is a lack of staff-training in writing science advice reports. It is noted that JRC will finance a series of events in this respect, titled 'science meets policy', geared to the writers of science policy reports.

⁶ [Professor Ortwin Renn](#)

⁷ For instance, open science seems to be rather designed for natural sciences than for humanities.