

D3.7: Guideline on a structure for the future SCAR Foresight exercises and its implementation

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The overall objective of CASA, a Coordination and Support Action (CSA), is a **consolidated common agricultural and wider Bioeconomy research agenda** within the European Research Area.

CASA will achieve this by bringing the Standing Committee on Agricultural Research (SCAR), which has already contributed significantly to this objective in the past, to the next level of performance as a research policy think tank. CASA will efficiently strengthen the strengths and compensate for the insufficiencies of SCAR and thus help it evolve further into "SCAR plus".



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## **List of Abbreviations**

- CASA = Common agricultural and wider Bioeconomy research agenda
- COM = European Commission
- CWG = Collaborative Working Group
- DGs = Directorates-General of the European Commission
- FAO = Food and Agriculture Organization of the United Nations
- FEG = Foresight Expert Group
- FG = Foresight Group
- FP = Framework Programme
- F-Study = Foresight Study
- JPI = Joint Programming Initiative
- MS = Member States
- OECD = Organisation for Economic Co-operation and Development
- SCAR = Standing Committee on Agricultural Research
- SWG = Strategic Working Group
- T = Task
- ToR = Terms of Reference



## 1. Summary

Work Package 3 of the CASA CSA project is entitled "Strengthening Strategic Advice".

This deliverable is 3.7 "Creating a structure for future SCAR Foresight processes – Guidelines for continuation and implementation" and presents the state of the art of the SCAR Foresight process and its optimisation.

The SCAR Foresight process is a continuous running process and supports SCAR in its strategic research advisory function for Member States (MS) and the EU Commission (COM). Since 2006, four SCAR Foresight studies have been carried out to identify possible future scenarios for the European agriculture and starting from 2012 for the wider Bioeconomy. The SCAR Foresight process continuously adapts to new challenges, takes up cross-cutting issues, feeds the strategic process of research policy-making and gives advice to political decision makers. Currently a 5<sup>th</sup> SCAR Foresight under the headline "Natural resources and Food Systems: Transitions towards a "safe and just" operation space" is ongoing. The COM has made available financial resources, through the Research Framework Programmes, to fund Foresight experts to prepare inputs to the SCAR Foresight study.

The Foresight Group is mandated by the SCAR Plenary to conduct Foresight studies and to steer and chair the SCAR Foresight process. In addition, the Foresight Group disseminates the results and supports in particular the MS, COM and the SCAR Groups (SWGs and CWGs) in accessing the relevance of the results and for implementation in Research and Innovation programmes and mandates.

The continuation of the SCAR Foresight process and the implementation of Foresight results and recommendations are challenging tasks, which are running in parallel.

With support from CSA CASA, the implementation process was optimized by using the results of the 4<sup>th</sup> SCAR Foresight as a model. The continuation process was optimized by using experiences obtained by establishing the 5<sup>th</sup> SCAR Foresight. On this basis, these guidelines were produced.

In summary, for the continuation of the Foresight process, the establishment of a task force is most important to be able to formulate a next agreed future theme and to support the Foresight process. In addition, the preparation of a Meta-analysis has proved useful in providing the SCAR Foresight experts with relevant documents in advance of the study. The COM financial support to fund the SCAR Foresight experts is essential. Due to the importance of the Foresights as a pillar of SCAR, Member States should express strong interest and should offer their active and permanent participation in the Foresight process. For implementation, the availability of suitable multipliers (ambassadors) at all levels (regional, national, EU, global) is crucial.

### 2. Introduction / Background of the SCAR Foresight Process

When the Standing Committee on Agricultural Research (SCAR) began rebuilding its position as a European advisory body on research policies for MS and the COM, Foresights were identified as principle instruments to develop research agendas. In June 2006, the SCAR Plenary agreed to carry out regular Foresight studies. Consequently, SCAR implemented a mechanism for monitoring Foresights in the agricultural field and the COM took the initiative to fund the Foresight reviews and exercises.



Since 2006, under the 7<sup>th</sup> Framework Programme and later under Horizon 2020, four Foresight exercises have been carried out under SCAR to identify possible future scenarios for the European agriculture and starting from 2012 for the wider Bioeconomy. The results from the Foresight exercises built the basis for the advisory function of SCAR for MS and the COM.

The SCAR Foresight reports highlight potential weaknesses as well as future opportunities (e.g. research priority setting) and provide input for more integrated research for primary production and the wider Bioeconomy in Europe. Each SCAR Foresight report has been concluded with a conference, aiming at the dissemination and subsequent implementation of results and providing a platform for discussing the "Main Foresight Messages".

Many start-ups of SCAR Groups (SWGs & CWGs) and activities (e.g. proposals for ERA-NETs and JPIs) result from the Foresight activities and recommendations. The use of the Foresight is important in ensuring that the right research questions are asked and strategic advice to policy makers is given.

In December 2017, the Foresight Group was mandated by the SCAR Plenary to start the 5<sup>th</sup> SCAR Foresight process. The ToR was approved by the SCAR Plenary. The COM signed the contract with Foresight experts. Currently, at the time of writing, a Foresight Expert Group is preparing the 5<sup>th</sup> SCAR Foresight under the Headline "Natural resources and Food systems – Transitions towards a "safe and just" operating space".

## 3. Objectives and purpose of the analysis / report

The purpose of this report is to provide a suitable structure for future SCAR Foresight processes including guidelines for continuation of the process and implementation of SCAR Foresight results.

The aim of the analysis is to optimize:

- 1. the continuation on SCAR Foresight process by using the experiences within the 5<sup>th</sup> SCAR process
- the implementation of SCAR Foresight results and recommendations by using the results of implementation of 4<sup>th</sup> SCAR Foresight as example (linked to the survey reported in CASA deliverables D2.10 and D2.11 "Monitoring of Implementation of recommendations in the 4<sup>th</sup> SCAR Foresight")

Both processes were supported by the CSA CASA with funded actions and activities.

In the introductory part of the report, an overview of SCAR Foresight exercises and the SCAR Foresight Group is given. The previous four SCAR Foresight studies are briefly presented and the state of the play for the 5<sup>th</sup> SCAR Foresight study is explained.

The second part of the report deals with the pathways and actions: Starting with regard to the structure for continuation of the Foresight process; followed by the process for the implementation of SCAR Foresight results and recommendations using the example of implementation of the 4<sup>th</sup> SCAR Foresight exercise. Both sub-processes are running in parallel.



## SCAR Foresight: A pillar of SCAR activities



Source: SCAR Conference 4 – 5 December 2019 Tallinn

Foresights are one of three pillars of SCAR activities, whose mission is to advise the SCAR Member States and the Commission on issues that were broadened during the last years from Agriculture to all primary sectors including forestry, fisheries, aquaculture to the wider Bioeconomy. Foresights cannot predict the future, but thy open windows on possible futures, shake obsolete assumptions and help to think "Out of the box".

The SCAR Foresight process is the engine for SCAR advisory function and a fundamental pillar of SCAR.

### SCAR Foresight: A fundamental instrument of SCAR



Source: SCAR Conference 4 – 5 December 2019 Tallinn



# Guideline on a structure for the future SCAR Foresight exercises and its implementation

SCAR has always supported Foresight and related processes as a core instrument to inform, to advice and to facilitate policy decision makers on European and national level. Since there is also a need at global and regional level, SCAR developed its advisory role further to cover all levels of demand.

After the re-launch of SCAR in 2005, a SCAR Foresight process was established and a SCAR Foresight Group was mandated by the SCAR Plenary. The SCAR Foresight Group is a permanent group under SCAR and consists currently of four Member States DE (chair), FR, IT and DK. The Foresight Group is open for representatives of all Member States and Associated Countries. This makes the Foresight Group fundamental for chairing and steering the Foresight process in cooperation with the Commission. For the current SCAR Foresight an ad hoc task force group with volunteers from Member States was establish to support the Foresight Group and its process. In addition, the Foresight Group disseminates the results of the Foresight studies and supports the SCAR Groups (SWGs & CWGs) in assessing the relevance of the results for the mandates and activities of these groups. Foresight conclusions and recommendations have been used by the Commission and the Member States in planning research coordination activities for the Framework Programme Horizon 2020 and on national level.

### **SCAR Foresight: Four Studies in Series**

Climate Change and Energy Resilience and Food Crises 2008 Resource Scarcities Efficiency vs Sufficiency

Sustainable Bioeconomy



Source: SCAR Conference 4 – 5 December 2019 Tallinn

In June 2006, the SCAR Plenary agreed to carry out regular Foresight Exercises. Consequently, SCAR implemented a mechanism for monitoring Foresight in the field of European Agriculture and the wider Bioeconomy. Since 2006, four studies were carried out sequentially. The Commission took the initiative to fund these exercises

The 1<sup>st</sup> SCAR Foresight Study (2007) examined prospects for agriculture on a 20year perspective based on a challenge approach allowing the identification of innovation needs based on disruption scenarios.



The 2<sup>nd</sup> SCAR Foresight Study (2009) highlighted the necessity of better balancing the current predominant economic thinking with attention ecological resilience and social issues. The increasing scarcity of resources and the adverse impacts on the environment are major challenges for agriculture and, increasingly, for world food security.

The **3**<sup>rd</sup> **SCAR Foresight Study** (2011) clearly established the challenge of scarcity. The scarcity issues are strongly interlinked with many feedback loops. Any action in one area needs to take into account actions in other areas. There was an urgent need to get a much better understanding of the key linkages and feedback loops of these scarcity issues for agriculture and for food security linked to environmental sustainability.

The **4**<sup>th</sup> **SCAR Foresig**ht (2015) was developed when COM, MS and regions were developing strategies for the Bioeconomy with a view to improve the use of biomass in the traditional sectors (food, feed, pulp and paper, energy). In this regard, both the efficiency and its potential as a substitute for oil in the production of chemicals, materials and fuels were considered. The five "principles" for a sustainable Bioeconomy was included in the 4<sup>th</sup> Foresight report (Food first, Sustainable yields, Cascading approach, Circularity and Diversity) as well as recommendations on research priorities.

Each exercise was inspired by the need to understand the impact of relevant developments and the required way to cope with them. In the further Foresight process, this principle is stated. All SCAR Foresight studies are available under the link: <u>www.scar-europe.org</u>.

The **5**<sup>th</sup> **SCAR Foresight study** under the headline "Natural resources and Food Systems: Transitions towards a "safe and just" operation space" started in 2018. This Foresight study will be developed in accordance with the objectives agreed by all EU Member States to protect the world from hazards of further changes of the world climate (COP21 Paris Agreement) and to guarantee a sustainable development for humanity (Sustainable Development Goals (SDGs) of the UN Agenda 2030.

As described in the Terms of reference (TOR): "The aim of the 5<sup>th</sup> SCAR Foresight will be therefore to explore the necessity and the impact of different transitions in the use of natural resources and food systems taking into account humanity and the consequences of those transitions. It is expected that the outcome will be of significant relevance for policy makers, stakeholders and the entire society as "business as usual" is no longer viable option. The goal of the 5<sup>th</sup> Foresight is to prepare a document with policy and research recommendations for policy makers in EU Member States and the Commission. In addition, the study should provide an overview of the current situation".



## 4. Pathways to actions and its optimisation

The purpose of the following section is to provide suitable structure and guidelines for future SCAR Foresight processes (first part) and provide an optimized process for implementation of SCAR Foresight results and recommendations (second part).

### A. Structure of the SCAR Foresight process

One of SCAR's main activities is horizon scanning through foresight studies.

In order to start a new Foresight study, the **SCAR Foresight Group** (FG) proposes to the **SCAR Plenary** to conduct a new Foresight study. If this is approved, the FG receives a mandate from the SCAR Plenary to continue the SCAR Foresight process and prepare the Terms of Reference (ToR) for a **Foresight Expert Group** (FEG). The task of the FG is to chair and to steer the Foresight process. Since for the 5<sup>th</sup> SCAR Foresight process the permanent FG consists only of representatives from 4 Member States (DE (Chair), FR, IT, DK) an ad hoc **Task Force Group** was carried out to support the FG.



The Task Force Group itself consists of SCAR members, members of SWGs & CWGs, the Commission from different DGs and experts from the 4<sup>th</sup> Foresight Study. For the 5<sup>th</sup> SCAR Foresight, it was agreed, that the Task Force Group should support the FG during the entire new cycle of the Foresight process.

FG together with the Commission and the Task Force members elaborate the scope for the new SCAR Foresight study. The main goal is the finalisation of ToR, which is sent to the SCAR Plenary for approval.





After approval of the ToR, the FG chairs and steers the Foresight process and governs the execution of the Foresight studies in cooperation with the Commission.



On the basis of the ToR, a **Foresight Expert Group** (FEG) is selected and appointed. To achieve this, the Foresight group consults the SCAR Member State delegates and the groups under SCAR (SWGs & CWGs) as well as the Commission for suggestions of independent, external experts. Those experts have to have participated in other Foresight exercises in advance, have the ability to interact with sectorial specialists and SCAR Groups and should be familiar with the Foresight process and the structure of SCAR. These experts will be the "Core Group" (n = 4 to 6). They will be involved in the entire process of the Foresight and will be responsible for the update of FG and Commission as well as for the delivery of the final report. There is one FEG chair and one rapporteur.

For this purpose, the FG collects the suggestions and provides the COM with a pool of expert names. The experts need to be registered in the database established by the Commission with regard to their field of expertise. The COM approves the experts, in dialogue with the FG taking into consideration gender and geographical aspects. Since Foresight studies are funded under the Framework programmes (FP7, Horizon 2020), the Commission contracts the experts.



If needed, further experts may support the "Core Group" for particular questions and specific aspects of individual sectors (n = 4-6), exploring the potential consequences and possibilities within and between sectors.

Due to the grant challenges for the 5<sup>th</sup> SCAR Foresight the duration time to prepare the study was extend by 6 months to up to 20 months. In addition, the CSA CASA offered the opportunity to carry out a case study for a Meta-analysis. This is a new, but very efficient support to the FEG in advance. This Meta-analysis provides state-of-the-art knowledge on the topic of the Foresight study and recycles relevant documents, which helps the experts to start their work.



Another suitable support is to involve further experts and stakeholders. Another support used within the 5<sup>th</sup> Foresight is the request to the SWGs and CWGs to produce written input ("fact sheets") to improve and to complete the Foresight exercise. Force group during the lifetime of the Foresight has proved very useful. After completing the Foresight study by the FEG, the SCAR FG group will create a "SCAR reflection paper" to provide recommendations to SCAR Member States and the Commission.



### For the next cycle of Foresight process, it is strongly recommended to keep:

- A SCAR Foresight Task Force Group during the lifetime of the SCAR Foresight study
- A pre-study Meta-analysis in advance of the Foresight study paid by the COM
- The opportunity to hire "Short term experts" for sectors / areas
- To organize workshops during the lifetime of the Foresight study
- To extend the duration for preparing the Foresight study up to 20 month
- To get financial support by the COM for SCAR Foresight studies and for case studies



B. Process for the implementation of SCAR Foresight results

A second process running in parallel to create a new cycle of SCAR Foresight process is to optimize the process for implementation of SCAR Foresight results and recommendations on different levels – on regional, national, EU and the global level. All levels are connected and influence each other. The figure below provides a visualization of the different levels and their connections. It refers to the 4<sup>th</sup> SCAR Foresight process in the context of dissemination of Bioeconomy strategies.



Source: SCAR Foresight Group

To ensure a well-coordinated implementation on all levels, a well planned dissemination and subsequent implementation of Foresight results and recommendations are crucial. The implementation of the Foresight results and recommendations takes place on four levels:

a) The global level: e.g. through global programmes and global strategies. Main organizations include here are the OECD and FAO.

b) The EU level: e.g. through different programmes like Horizon 2020, different strategies by. DG AGRI and / or DG RTD. In addition, many SCAR activities such as ERA-NETs and JPIs as well as initiation of SWGs & CWGs resulted from SCAR Foresight studies.

c) National levels: through the Implementation of national Bioeconomy strategies and National research programmes

d) Regional levels: e.g. through the implementation of Bioeconomy strategies and programmes for rural development)

The use of the Foresight is important in ensuring that the right and relevant research questions are formulated and strategic advice to policy-makers is given.

The SCAR Foresight group supports the dissemination of the Foresight study results. To be able to disseminate outcomes and outputs from Foresight studies to all relevant stakeholders, the Foresight Group and the COM activate their networks.



Guideline on a structure for the future SCAR Foresight exercises and its implementation

The Foresight Group disseminates the results of the Foresight Studies and supports the SCAR Groups (SWGs & CWGs) in assessing the relevance of the results to the mandates and activities of these groups. Additionally, the experts are included and can make suggestions for the most efficient and effective recipient circle. In addition, the COM provided resources to publish the outcomes as well.

During the last three years (2016-2019), CASA has supported the dissemination of the Foresight results and recommendations and raising awareness of the Foresight Group and its work as well. This included work in WP 2: Task 2.4 (Strengthening linkages between SCAR Groups and Directorates-General of the European Commission and international organisations), Task 2.5 (Support to the Implementation of the 4<sup>th</sup> Foresight and its recommendations), WP 3: Task 3.4 (Support SCAR on better alignment of research and innovation policies), Task 3.6 (Creating a structure for future SCAR Foresight processes) and WP 4: Task 4.2 (Communication with all dissemination products including newsletter articles, flyers, SCAR website).

Surveys with focus on the dissemination and implementation on the 4<sup>th</sup> Foresight were conducted by CASA and reported in D2.10 and D2.11 "Monitoring of implementation of recommendations in current SCAR Foresight". According to the surveys, the most important actions for dissemination was the stakeholder conference launching the foresight organised by the EC in close collaboration with SCAR in Brussels, SCAR meetings and the word of mouth distribution via colleagues on national level. The infographic visualising the content of the 4<sup>th</sup> Foresight was considered very valuable. In general, dissemination activities were in demand.

Furthermore, the results of the surveys reported in D2.10 and D2.11 showed that allocation of additional financial means and added competences for the implementation of the Foresight results is limited. Main obstacles to the implementation were reported as lack of financial means and a busy work schedule. Suggestions for improved implementation were presentations of best practice examples and workshops with guidance on methods and processes for implementation.

#### Implementation of SCAR results - Recommendations for the future

For future SCAR Foresights, respondents to the survey mentioned above pointed out the importance of having the possibility to contribute with inputs early in the foresight process. By being involved at an early stage, contributors can bring the themes and topics back to the national level and increase the probability of implementing the results and recommendations in their national agendas.



## 5. Conclusion

The figure below shows the current situation concerning the SCAR Foresight process. The SCAR Foresight process is a continuously running process, where the implementation and dissemination of Foresight results are carried out in parallel with the start of each new Foresight process.



Strong and active collaboration between the groups under SCAR, COM and MS is crucial for a successful dissemination and implementation of the Foresight studies. CASA has supported the preparation phase and start of the 5<sup>th</sup> SCAR Foresight, as well as the development of documents and the financial support of the Meta-analysis. For future Foresight studies and processes, an alternative source of support has to be found since CASA is ending at the end of August 2019.

Financial support by the COM is essential to be able to contract high-level experts, to disseminate the Foresight results / recommendations and to organize support actions such as workshops or seminars. In addition, a strong SCAR secretariat with sufficient capacity is needed to run the SCAR Foresight process and to support the Foresight Group in steering and chairing the process.

Besides the already mentioned aspects, which should be kept for a new cycle of Foresight process (see box above), Member States especially from Eastern European Countries should be convince to volunteer as permanent member in the Foresight Group. To establish a task force is in the right direction, but finally only a permanent Foresight group can follow the global challenges and is be able to act as a "Think Tank" and as an advisory group for SCAR. Therefore, all Member States should be urged to provide sufficient capacity and qualified staff to support the work of the Foresight Group in future.

Since the SCAR Foresight process continuously adapts to new challenges and takes up cross cutting issues, SCAR Foresight studies are needed on a regular basis. In summary, it is strongly recommended, to ensure long-term and sustainable support of the SCAR Foresight Group and its activities by MS and the COM.

