

D3.8 Impact Assessment framework for SCAR



August 2019



EUROPEAN UNION

Project co-funded by
H2020 Programme under
Grant Agreement n° 727486

Written by: Dr Stefano Grando, Mipaaf

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”.

TABLE OF CONTENTS

List of Figures.....	2
List of Abbreviations.....	3
Summary	4
1. Introduction	7
1.1 Objective	7
1.2 Relation between the framework and the implementation plan	7
1.3 The importance of an assessment for SCAR and its follow-up.....	8
1.4 Structure of the document.....	10
2. SCAR description with overview of activities and relevant outcomes	11
2.1 Brief SCAR history and current challenges	11
2.2 The policy context	12
2.3 A multi-level policy landscape	14
2.4 SCAR main initiatives and governance	15
2.5 Overview of SCAR's main activities and outputs	18
3. Methodology - Process of definition of the IAF.....	20
3.1 Desk study	20
3.2 Participation to SCAR and CASA activities and talks with key informants..	21
3.3 Participatory meetings at SCAR WGs	22
3.4 Second round of feedbacks and final elaboration.....	23
4. IAF rationale and structure.....	24
4.1 Definition of impact	24
4.2 Complexities of the assessment	25
4.3 The logical frame and the three-level assessment grid	26
5. The Target areas and the related evaluation questions	28
5.1. Alignment and coordination	30
5.2. Strategic advice.....	32
5.3. Networking and community building	34
5.5 Overall evaluation issues.....	35
Acknowledgments	37
References	38
Annex 1	40

LIST OF FIGURES

Figure 1 - The multi-level SCAR policy landscape	15
Figure 2 - The four main SCAR initiatives	16
Figure 3 - SCAR organisation	17
Figure 4 - Options for the framework structure	21
Figure 5 - Logical chain of the SCAR impact.....	27
Figure 6 - The three level assessment grid	28
Figure 7 - The three target areas in relation to SCAR main initiatives	29

LIST OF ABBREVIATIONS

AC	Associate Country
AG	Assessment Group
CSA	Coordination and Support Action
CWG	Collaborative Working Group
DG	Directorate General
DG AGRI	Directorate-General for Agriculture
DG RTD	Directorate-General for Research and Innovation
EIP	European Innovation Partnership
EJP	European Joint Programming
ERA	European Research Area
EU	European Union
IA	Impact Assessment
IAF	Impact Assessment Framework
IP	Implementation Plan
JPI	Joint Programming Initiative
MS	Member State
SCAR	Standing Committee on Agricultural Research
SWG	Strategic Working Group

SUMMARY

The CASA coordination and support action (CSA), funded under Horizon 2020, started on September 2016 with the overarching aim to support, through a range of activities, the Standing Committee on Agricultural Research (SCAR) in the achievement of its overall objective: a consolidated common agricultural and wider bioeconomy research agenda for the European Research Area (ERA). The design of a framework for future assessments of SCAR impact has been identified as an important contribution to the improvement of SCAR performances, and for this reason a specific task has been dedicated to this objective within CASA Work Package 3.

This document is the Deliverable D3.8 of the CASA CSA. It explains objectives, background, rationale, methodology and structure of an Impact Assessment Framework (IAF), aimed at guiding future Impact Assessments (IAs) for the activities of SCAR. This IAF also includes elements of programme evaluation (useful to identify recommendations and suggestions for improvement), and aims at covering all relevant fields, while minimising useless or redundant information.

The IAF identifies three areas of impact for the SCAR, from now onwards referred to as “target areas”, and a related set of evaluation questions. These questions are meant to be addressed in future IAs through a three-steps assessment process managed by an assessment group (AG): a preparatory desk analysis, a questionnaire through which the questions are submitted to a diversified set of recipients, and a final focus group in which the outcomes of the questionnaire are elaborated.

These three steps are described in more detail in the "Strategy with Implementation Plan" (IP), an autonomous but highly interrelated document, with which the present deliverable constitutes a single integrated product. The IP (Grando 2019 - Casa Deliverable 3.9) starts from the outcome of this document (the set of target areas and evaluation questions) and suggests how to proceed in the actual assessment exercises.

Section 1 introduces the document, explains the importance of carrying out impact assessments for SCAR and introduces the rest of the document.

Section 2 analyses the object of the assessment. It gives an overview of the SCAR structure, of the evolving policy context in which it operates and of the

main initiatives identified in the strategic documents, which provide the base for the identification of the three target areas.

Section 3 highlights the process through which the framework has been developed and the methodology followed for the identification of the target areas and the evaluation questions, which represent the backbone of the IAF. Alongside the desk work based on the analysis of SCAR documents, the open discussions on the IAF drafts organised in two different phases of the work have played a major role in the refinement of the IAF. Comments and suggestions received by national delegates and by the members of the SCAR working groups greatly supported the refinement of the work.

Section 4 develops a definition of "impact" tailored on the specificity of SCAR, which can be seen as space of confrontation and coordination and as a source of advice, whose actual final impacts on "the world out there" are inherently indirect. Based on this reflection on the nature of SCAR impact, a related logical frame for assessments is then developed.

Finally, section 5 presents a description of the three target areas and of the related main and specific evaluation questions, to be addressed through the three phases of the assessment exercises.

The three identified target areas and the related main evaluation questions reflect the vision of SCAR emerged from the process of definition of the IAF as a policy coordination instrument, as a source of strategic advice and as an arena of dialogue among policy makers and with researchers and other private stakeholders.

The target areas are:

1. *Alignment and coordination*, whose main evaluation question (articulated in 10 more specific questions) is: "Is SCAR effectively supporting the alignment and coordination of the research policy agendas of member states and associate countries in the agriculture and bioeconomy and related fields, at the EU and at the global level?"
2. *Strategic Advice*, whose main evaluation question (articulated in 13 more specific questions) is: "Does SCAR produce useful advice influencing agriculture and bioeconomy policy design and coordination for member states and associate countries, and at the EU level?"
3. *Networking and community building*, whose main evaluation question (articulated in 7 more specific questions) is: "Is SCAR capable to create a European research policy community in the agriculture and bioeconomy fields and to reinforce the science-policy-business dialogue?"

Some overall evaluation issues conclude the document. Specific attention is given to the need for a flexible IAF. This concern reflects the awareness that the SCAR structure and the context in which it operates evolve over time, and that the specific assessment conditions (resources, objectives, timeframe) are not known yet.

1. INTRODUCTION

1.1 Objective

SCAR has the mandate to promote and coordinate research and innovation policies in the fields of agriculture and wider bioeconomy, while strengthening coordination and alignment between national strategies of European Union (EU) member states (MS) and associate countries (AC). It acts as a platform to exchange information, visions and plans on research priorities and demands, and has an advisory function to both European Commission (EC) and the MSs and ACs.

SCAR represents an influential source of policy advice for the EU, but also an arena for confrontation and collaboration between countries, as well as among policy-makers, researchers, experts and business sector. However, there is room to improve the efficacy and efficiency of its action, to give more evidence to its added value, and to increase the awareness of SCAR's actual and potential impact.

Improving the SCAR impact means, first and foremost, enhancing its capacity to provide policy alignments and priorities uptake by MSs and ACs¹. At the same time, making SCAR outputs better known among policy-makers, researchers and practitioners, would further benefit SCAR's efficacy².

For these reasons, in the context of the CASA CSA³, supporting SCAR, it has been decided to design a framework which is suitable to guide future impact assessment exercises able to highlight the added value and the impacts of SCAR and to contribute to maximize them.

1.2 Relation between the framework and the implementation plan

The present document explains objectives, rationale, methodology and structure of the IAF for the SCAR, based on three target areas and on a related set of evaluation questions.

¹ A more detailed reflection on the concept of "impact" for the SCAR is given in section 4.

² It is worth noting, in this regard, that SCAR and its documents have not been or only occasionally mentioned in recent and less recent wide-ranging scientific papers addressing agriculture and bioeconomy governance issues (McCormick and Kautto, 2013; Ramcilovic-Suominen and Pülzl, 2017; Wesseler et al., 2010).

³ Coordination and Support Action CASA, supported by the European Commission and funded by Horizon 2020.

These questions can be addressed in future assessments through a three-steps process managed by an assessment group (AG): a preparatory desk analysis, a questionnaire through which the evaluation questions are submitted to a diversified set of recipients, and a final focus group in which questionnaires' outcomes are elaborated and integrated by the AG with the involvement of experts and knowledgeable persons.

These three steps are described in more detail in the "Strategy with Implementation Plan) (IP), an autonomous but highly interrelated document, with which it constitutes a single integrated work. The IP (Grando 2019 - CASA Deliverable D3.9), starting from identified the set of evaluation questions, describes the plan for the organisation and for the implementation of the impact assessments, which begins with the identification of the AG. Then, it provides basic guidelines for the desk analysis, for the questionnaire submission and for the organization of the final focus group. Besides, it suggests some room for flexibility in the application this framework, in order to adapt it to the changing circumstances in which the future IAs will be carried out.

1.3 The importance of an assessment for SCAR and its follow-up

The IAF provides background, methodology, guidelines and tools to assess current performances and to identify areas of improvements of SCAR as arena of dialogue between policy makers, researchers and business sector and as a policy coordination instrument. It is meant to guide systematic impact assessment (IA) exercises with elements of programme evaluation (useful to identify recommendations), covering all relevant fields according to available resources (which requires a certain degree of flexibility), while minimising useless/redundant information.

In the perspective suggested by this framework, the main purpose of the future IAs is to help SCAR to improve its capability to fulfil its original mandate and to achieve other objectives emerged along the years as valuable areas of influence, with particular regard to those indicated in the strategic reflection paper issued in 2015 (SCAR 2015). In this aim, the IAs should systematically evaluate SCAR's influence on the development of sustainable and coordinated agriculture and bioeconomy in the EU, valorising, when identifiable, the added value originated by the specific nature and activity of SCAR.

It is important to underline that IAs do not aim at giving good or bad marks to SCAR working groups and initiatives, or to individual countries' engagement. On the contrary, they are meant to be used to support SCAR development, and to help all interested stakeholders, starting from MSs/ACs themselves, to more

effectively engage their time in SCAR-related activities, and to better use SCAR outcomes. In other words, future IAs should be aimed at highlighting suggestions on how to improve SCAR impact itself. The importance of this purpose is witnessed by one of the outcomes of the SWOT analysis conducted with the support of the CSA CASA, where the lessening impact on R&I policy and programmes, both at EU and national level, is said to be a weak point of SCAR. According to the report *“an implementation deficit was perceived to exist whereby the knowledge and information gathered by the SCAR and its structures is thought to not infiltrate national or European policy circles”* (Devaney and Henchion 2018, p.21).

Support to SCAR improvement and to its adaption in the context of a changing environment, will rely upon the elaboration of the collected information and will be supported by specific recommendations.

Besides this "core" purpose, the framework also aims at giving the future IAs two further roles.

First, the IAs should provide an opportunity for stakeholders' individual and collective reflection on SCAR activity. More ideas and initiatives could stem from this exercise beyond the mere accomplishment of the assessment.

The implementation of the IAs for SCAR is also important for its complementarity with other research and evaluation exercises as it allows to elaborate additional knowledge vis-à-vis evaluations focused on the impact pathways of research (IMPRESA, H2020 interim evaluations) and on the alignment of policies (e.g. those of the bio-economies already analyzed in BERST). As better explained in section 4.1, the assessment of the impact of SCAR presents some specificities, being related to research policy coordination rather than to actual policies or research. In this view the projects IMPRESA and BERST, although not directly related to the work carried out for this IAF, represent important elements of the policy and knowledge environment in which the assessment of SCAR impact can be framed.

Second, the results of the IAs can be disseminated and discussed, to become a catalyst for further reflections vis-à-vis larger audiences. The follow up of the IAs represents a key outcome of the overall assessment process. As the assessments are first aimed at improving SCAR impact, rather than at giving high or low scores to this or that activity, the importance of a proper and timely dissemination of the results and utilisation of the recommendations cannot be underestimated.

Besides, the assessment exercise itself, and more specifically the questionnaire's submission, can also be seen as a tool to spread knowledge

about SCAR initiatives. Indeed, the submission of the questionnaire to persons (and organisations) which are not necessarily in direct and continuous contact with SCAR can increase their awareness of the range of SCAR activities covered by the various questions.

1.4 Structure of the document

Section 2 describes SCAR as the object of the future IAs, with an overview of its history, its current structure, the policy context in which it operates and the main initiatives identified in the strategic documents, which provide the base for the identification of the areas to be investigated in the future IAs.

Section 3 briefly highlights the process through which the framework has been developed and the methodology followed for the identification of the target areas and the evaluation questions.

Section 4 develops a definition of "impact" tailored on the specificity of SCAR, seen as space of confrontation and coordination and as a source of advice, whose actual final impacts on "the world out there" are inherently indirect. Based on this reflection on the nature of SCAR impact, a related logical frame for assessments is then developed.

In Section 5, the three target areas are described, with the related main and more specific evaluation questions, which represent the backbone of the framework. Some overall evaluation issues, including the need for a flexible IAF to be adapted to future circumstances, conclude the document.

2. SCAR DESCRIPTION WITH OVERVIEW OF ACTIVITIES AND RELEVANT OUTCOMES

2.1 Brief SCAR history and current challenges

SCAR was established in 1974 through a Regulation of the EU Council (EC, 1974), with the aim to coordinate agricultural research policies at EU level among MSs/ACs.

SCAR was re-launched by the European Council in 2005 and then again in 2012, with a renewed mandate, reflecting the changes in the agricultural research agenda and the development of the bioeconomy as a new framework for the development of agriculture and related sectors. Thus, SCAR's mandate was extended to the policy coordination in forestry, fishery and in the wider bioeconomy field (SCAR 2015). Agricultural research and innovation are still SCAR's core business, but under the broader bioeconomy umbrella. The revised mandate includes a provision to give strategic advice to the EC and to MSs/ACs on the coordination of agricultural research in Europe.

In this process, the EC's Directorate-General for Research and Innovation (DG RTD) took over Secretary responsibilities from the Agriculture Directorate-General (DG AGRI). The latter is still very involved in SCAR activities. The changing role of SCAR and its new institutional umbrella reflected the significant changes in the agricultural agenda over the years and witnessed the ambitions of the EU to shape the ERA (CSA CASA D1.1, p.10).

The current challenges ahead of SCAR can be derived from its renewed mandate and are summarised in the recent Reflection Paper on the role of SCAR (SCAR 2015). In this document it is argued that "SCAR plays an important role in "establishing a European Research Area with a common agricultural and wider bioeconomy research agenda, which enhances cooperation, coordination, and information exchange between countries" (ibid., p. 10). In the same document there is another paragraph from which overall expectations can be identified. SCAR is said to be a "source of advice on European agricultural and research related to the wider bioeconomy, along with being a major catalyst for the coordination of national research programmes and in helping shape the European Research Area", to play a role "in coupling, and removing the barriers to research and innovation" and "to make it easier for public-public and public-private sectors to work together" (ibid., p.7).

In other words, SCAR provides a space where different, sometimes competing perspectives can be confronted and combined. The overall challenge is to coordinate different national priorities and agendas towards the common aim to

develop a sustainable bioeconomy and agriculture and to make the EU a cohesive and pro-active actor in the global arena of research and innovation in the whole bioeconomy sector.

At the time of writing, SCAR “represents 37 countries, mainly through ministries or organisations such as research councils, from all EU Member States and observers from Candidate and Associated Countries” (SCAR, 2015, p.7). The Committee operates through a range of working groups and ad hoc groups, having specific responsibilities and objectives, but which ultimately report to the plenary meeting of SCAR delegates.

A brief presentation of the policy context of SCAR is given below, before describing SCAR’s structure and activities.

2.2 The policy context

The activities of SCAR take place in a complex landscape of R&I policy in the fields of agriculture and bioeconomy innovation and development. This landscape has been described in a CASA Report, where the initiatives held under the umbrellas of the three most pertinent DGs (DG RTD, DG Agri and DG Grow) are described in more detail (Devaney and Henchion, 2017).

As far as this work is concerned, it is important to highlight the centrality of the Research Framework Programmes on the one side, and the programming and implementation periods of the Common Agricultural Policy (CAP) on the other, respectively managed by the DG RTD and the DG Agri.

A broader and more general strategic orientation is given by some key EC Communications, like in particular, at the time of production of the present work, the EC COM “The future of food and farming” (EC 2017/a), aimed at guiding the definition of the new CAP, and the EC COM “A clean planet for all”, (EC 2018) for a transition towards a climate neutral economy.

A key role for policy coordination in the agricultural field is played by the European Innovation Partnership “Agricultural productivity and sustainability” (EIP-Agri), which links research with practice through multi-actor research projects and Thematic Networks under the research policy frames, and through the Operational Groups established within the CAP.

A wide range of platforms, some created under SCAR initiative, provide the space of actual coordination of research policy national efforts. Some, like the ERA-NETs, are more focused on the design and implementation of joint calls, whereas others, like the JPIs (Joint Programming Initiative) and EJPs (European Joint Programming), have a broader and more strategic scope.

These initiatives represent, in some cases, an outcome of SCAR activities, and in general contribute to shape the policy environment in which SCAR operates.

Other instruments like the public-private partnerships and the Knowledge and Innovation Communities (KIC), again sometimes supported by SCAR actions, represent a bridge between the political initiative by the MSs/ACs and the business and wider stakeholders' community, with the aim to coordinate public and private initiatives.

Alongside policies and coordination initiatives, EU strategies are also key elements of the relevant political space for SCAR. Just to name the most relevant ones, without any ambition of exhaustiveness:

- The EU bioeconomy strategy "A sustainable bioeconomy for Europe - Strengthening the connection between economy, society and the environment" first issued in 2012 and then updated in 2018, links the use of biological resources with protection of biodiversity and ecosystems on land and sea⁴.
- Food 2030, an EU policy framework initiative, launched after the 2015 Milan World Expo, to incorporate UN Sustainable Development Goals and the COP-21 climate agreement into EU food policy centred on food and nutrition security priorities⁵.
- The Circular Economy Package, adopted in 2015 through the EC COM "Closing the loop - An EU action plan for the Circular Economy"⁶ (EC 2015) and related Directives, with the aim to stimulate Europe's transition towards a circular economy covering the whole production and waste management cycle (Hagelüken et al. 2016), with the various set of measures progressively adopted to implement that plan, in particular for waste management, some of which are pertinent to the bioeconomy remit⁷.
- The EU 2030 Climate and Energy Package, adopted by the European Council in 2014 includes EU-wide targets and policy objectives for the period from 2021 to 2030⁸.

While designing a framework for impact assessments that can be carried out in the future, it is crucial to underline that the context here briefly summarised is continuously evolving, with new initiatives and platforms being established while others get to the end of their life. Besides, some key passages, like the approval

⁴ https://ec.europa.eu/research/bioeconomy/pdf/ec_bioeconomy_strategy_2018.pdf

⁵ <http://ec.europa.eu/research/bioeconomy/index.cfm?pg=policy&lib=food2030>

⁶ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52015DC0614>

⁷ http://ec.europa.eu/environment/circular-economy/index_en.htm

⁸ https://ec.europa.eu/clima/policies/strategies/2030_en

of the a new framework programme or a new CAP represent actual landscape changes, with a new jargon but also a new organisation of the contents, potentially re-shaping roles and responsibilities of existing entities (like SCAR itself). Last but not least, the EC organisation and the remits of the various DGs can also change over time, further influencing the policy context in which SCAR operates.

Alongside the EU and ERA level⁹, the global dimension is a key arena of confrontation and commitment for the challenges in SCAR remit. Multilateral commitments (like the already mentioned COP-21 climate agreement and the SDGs) and global partnerships (for example the International Bioeconomy Forum - IBF - in the specific bioeconomy remit) represent crucial points of reference for SCAR activity¹⁰. For this reason, a broader representation of the multi-level policy landscape relevant for SCAR can be useful.

2.3 A multi-level policy landscape

Fig. 1 gives a simple visual representation of the various levels at which SCAR operates, and at which a possible SCAR impact can be identified. They are at the same time geographical levels (with regard to the territories involved) and institutional levels (with regard to the relevant institutions and organisations).

The stakeholders (institutions, organisations, individuals) that can directly influence or be influenced by SCAR are (not exhaustively) displayed, in relation to the most pertinent geographical/institutional level. The variety of stakeholders reflects the potential relevance for SCAR in the different research policy spheres.

The "SCAR" level (in the inner circle) is not an area of "external" influence of SCAR *strictu sensu*, as it relates to persons who are directly engaged in SCAR activities (to a certain extent the persons who "are" the SCAR). However, this it is a level that deserves to be investigated, in the light of the aim to harvest any possible information and opinion that can be used to reflect on SCAR effectiveness and to identify opportunities for improvement.

⁹ The ERA level is used to indicate a level which is at the same time more specific than the EU level (focused on the research space) and broader in terms of geographical coverage. This is because, as mentioned in the EC COM 392/2012 (EC 2012), the construction of the ERA (which first involve EU member states) involves also countries other than member states themselves, like associated and candidate countries, that are also represented, as observers, at SCAR. In this framework the impact SCAR is expected to have "at the European level" also includes those countries.

¹⁰ For example, COP21 commitments and SDGs have been taken as point of reference for the definition of the scope of the 5° Foresight exercise.

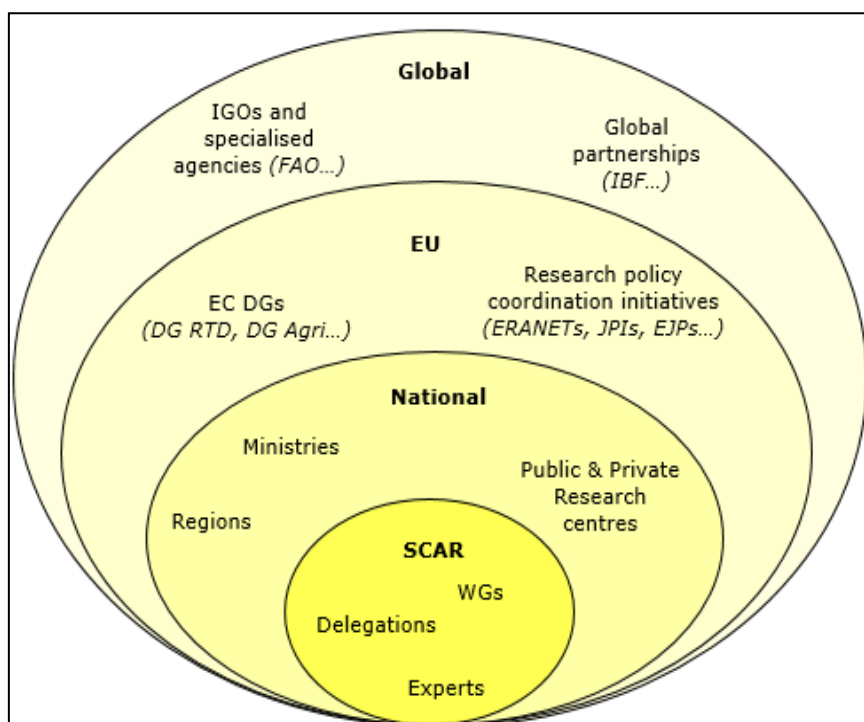


Figure 1 - The multi-level SCAR policy landscape
(own elaboration)

All these elements have been mentioned to draft the overall picture of the policy context in which SCAR operates. However, and as already argued, this is a continuously evolving landscape, which will not be the same when the impact assessments are likely to be actually carried out.

For example: the impact of SCAR in a period in which a key document like the European Bioeconomy strategy is being discussed must be assessed with high attention paid to that process, whereas in the immediately following years that specific influence could likely be much less important. This is one of the reasons for having a flexible IAF, as more extensively argued in the last section of this document and then in the IP.

2.4 SCAR main initiatives and governance

In the Reflection paper (SCAR, 2015, p.10) it is stated that SCAR enhances cooperation, coordination, and information exchange between the Member States through four main initiatives: providing strategic policy advice, carrying out foresight processes to reflect on future scenarios, developing common research agendas within EU countries, mapping research capacities in bioeconomy within the EU.

The relations between the four initiatives are represented in Fig. 2, which shows how Strategic Policy Advice is the ultimate goal of SCAR, pursued through the three other initiatives.

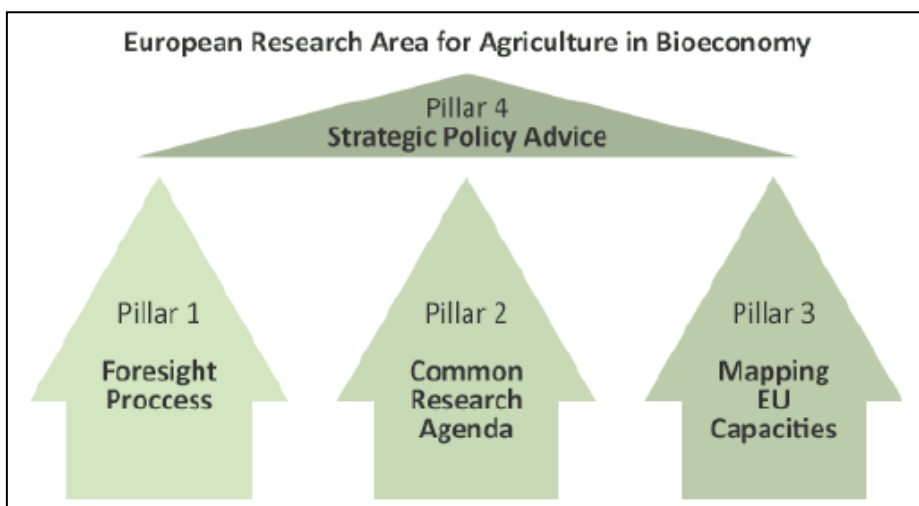


Figure 2 - The four main SCAR initiatives
(source: SCAR 2015, p.10)

The Reflection paper also lists the different outcomes that SCAR is expected to deliver based on the four main activities shown in Figure 2. In short, SCAR is asked to provide and share information about current state of art of the research in agriculture and bioeconomy, to envisage future scenarios, to suggest priorities and development pathways, to promote research uptake and alignment, to foster networking and international cooperation. All these elements have been considered in the design of the IAF and conveyed into the three target areas.

To implement these activities SCAR is organised as presented in Fig.3.

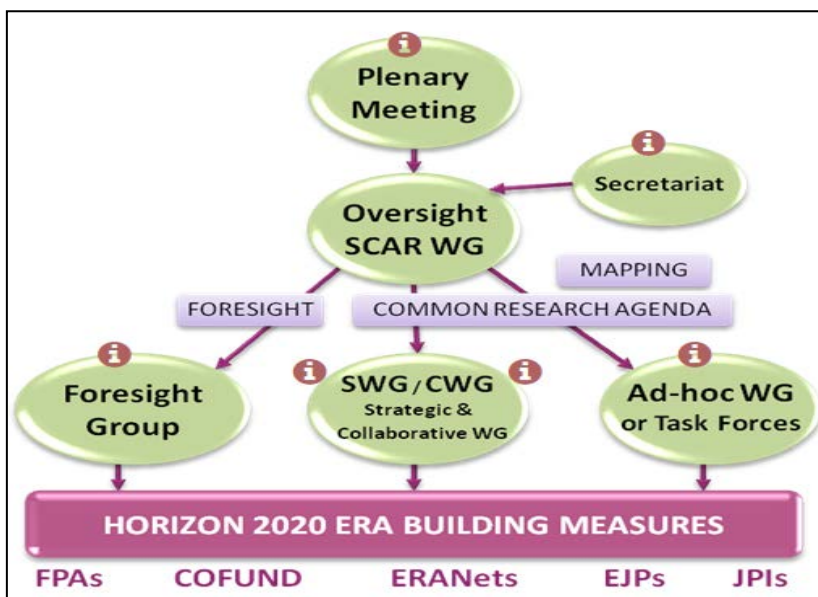


Figure 3 - SCAR organisation
(source: SCAR 2015, p.8)

The Plenary¹¹ is the SCAR ‘governing body’, which gathers delegates from all EU MSs/ACs and MS candidates MS as well as from the EC (DG AGRI and DG RTD). Plenary meetings provide a forum for addressing the strategic direction of agricultural and wider European bioeconomy (including forestry, fisheries and aquaculture) research and innovation and its coordination in Europe. They decide on the creation and continuation of SCAR working groups and on any other initiative proposed by the EC or the SCAR Steering Group (SG), which is the executive body of SCAR.

The SCAR Steering Group (SG) is the true “engine” of SCAR, initiating actions and initiatives then decided by the Plenary and overseeing the activities of the various working groups. It prepares the plenary meetings, including discussion papers and proposals, and provides support to existing activities. The SG works closely with the EC in the development of coordination mechanisms and for the prioritisation of research policy, and act as a platform for the scanning on the research landscape and for the interaction with other organizations and initiatives.

¹¹ This and the following short descriptions of SCAR bodies and activities are mainly taken from the SCAR website (<http://www.scar-europe.org/index.php/home-scar/organisation>), from the SCAR Rolling Work Plan 2019 (document presented at the SCAR Plenary in December 2018), from communications provided by the various SCAR coordinators in the occasion of SCAR events, and from the report produced by the Task Force on the Evaluation of the SCAR Working Groups (SCAR 2018).

Strategic and collaborative working groups (SWGs and CWGs) are fora where members (policy officers, researchers, stakeholders) discuss matters of common interest in a specific research area, with the aim to contribute to the construction of common research agendas and with a view to a possible multilateral collaboration between research funders. In particular, SWGs are established to address strategic matters relating to research and innovation for which it is deemed that insufficient room for discussion is available in the Plenaries and Steering Groups, whereas CWGs are mainly aimed at initiating collaboration between research funding organisations, building trust and common ways of working and looking at the development of common research agendas, possibly evolving into ERA-NETS.

Ad hoc groups or task forces are occasionally set-up by SCAR to take on an initiative additional to its regular activities. In particular, the SCAR Foresight Group is in charge of supporting the process of identification of the experts in charge of each Foresight exercise, and the carrying out of the exercises themselves, in coordination with the EC and with the experts, including the execution of relevant studies that have been approved by the SCAR Plenary.

2.5 Overview of SCAR's main activities and outputs

The main outputs realised by the SCAR have been described, for the period covered by the last mandate of each WG, by the Light Touch Evaluation Report carried out in 2018 by a dedicated Task Force (SCAR 2018), where a more detailed description can be found. For the sake of the present IAF context, it is sufficient to recall the main types of outputs, which are, as much as possible, reflected in the evaluation questions:

- Production of new knowledge or positions expressed in reports providing information, suggestions and other advice. These documents are produced in various formats like technical notes, policy briefs, explorative studies, booklets etc.). There are also opportunities to give informal advice to ongoing initiatives, strategies or other processes.
- Production of Foresights exercises. SCAR has launched five foresights since 2007 (four concluded, the fifth at work while writing this document), covering subjects such as prospects for agriculture on a 20 years perspective, a better balance between economic thinking, ecological resilience and social issues, the challenge of resource scarcity, and the challenge for agriculture, forestry, fisheries, and aquaculture in the bioeconomy (Winther Jørgensen et al. 2018, p.4). The Foresight exercises, carried out by selected multidisciplinary groups of experts with the support of a "SCAR Foresight Group", are among the

most relevant SCAR outputs, as witnessed by the presence of the Foresight among the four main SCAR initiatives as seen in Figure 2. They are an important source of information and advice, and also a tool to encourage policy research coordination towards relevant objectives for the future of bioeconomy. Given SCAR Foresight exercises' relevance and specificity, they have been given special attention in the formulation of the evaluation questions.

- Activities aimed at sharing and pooling already existing information (inventories and mapping of capacity and initiatives, joint databases, etc.)
- Contribution to the production of Strategic research Agendas (SRIAs) for policy coordination or joint programming initiatives, consortia and partnerships
- Rapid responses and suggestions in reaction to emerging issues or crises. This is more specific activity of CWGs, and of the CWG AHW in particular.
- Launch of research policy coordination or joint programming initiatives and partnerships. As previously mentioned, some ERA building measures and coordination actions (ERA-NETs, European Joint Programming actions, Joint Programming Initiatives and the other referred to at the bottom of Figure 2), though not belonging to SCAR, have their roots in SCAR WGs. Thus, the contribution given to their establishment can be considered as an area of investigation to be addressed in an impact assessment.
- Organisation of workshops, seminars, conferences and other single events open to external actors, organised by SCAR or SCAR groups alone or in collaboration with other agencies or organisations with a thematic or geographical focus (for example with Bio-Based Industries Joint Undertaking - BBI JU -, Biodiversa, BioEast).
- Recurrent participation to policy coordination tables (like the SCAR-PC meetings) as well as to macro-regional or global level partnerships, like the International Bioeconomy Forum (IBF)

Through these activities and outputs, SCAR aims at strengthening coordination between countries, but also between different spheres and environments involved in agricultural and bioeconomy research: the policy, the scientific and the business one. In doing so, it focuses also the social and the ecological dimensions of bioeconomy development pathways, alongside the economic and technological ones.

3. METHODOLOGY - PROCESS OF DEFINITION OF THE IAF

3.1 Desk study

The definition of the IAF is based on an analysis of SCAR activities and expected outcomes, and by a preliminary recognition of existing impact assessments and programme evaluations of similar entities and initiatives.

Impact assessments can be conducted at various levels and structured according to a range of parameters and criteria. In recent years various frameworks, impact assessments and programme evaluations have been developed in the EU context for policy coordination actions and similar initiatives. Each framework, developed by an expert group, has its specificities. These specificities reflect the diverse aims of the exercise (programme monitoring and evaluation, impact assessment) and also the various objects investigated in each assessment: specific policy coordination actions like JPIs (Syber Hansen et al., 2013; EC, 2016/a) or EIP-AGRI (EC, 2016/b), the general public-to-public networks and associated projects in an ERA-LEARN document (Amanatidou et al., 2016) or a wide-ranging research framework programme like Horizon 2020 (EC, 2017/b).

However, none of the revised frameworks was tailored upon a policy coordination activity like SCAR, whose impact is highly indirect and difficult to grasp¹². Therefore, valuable inputs and ideas on how to design a tailored framework and on the options that can be considered were collected:

The reading of the theoretical papers and of the existing assessment frameworks led to the identification of a number of options that have been considered in the design of the SCAR IAF. These options were multi-level: they relate to the assessment structure (logical frame, assessment criteria, timing), as well as to the possible levels for information collection and for the organisation of findings.

The main methodological options emerging from this review have been systematised in Fig. 4.

¹² See what argued in section 4.1 with regard to the definition of impact for the SCAR.

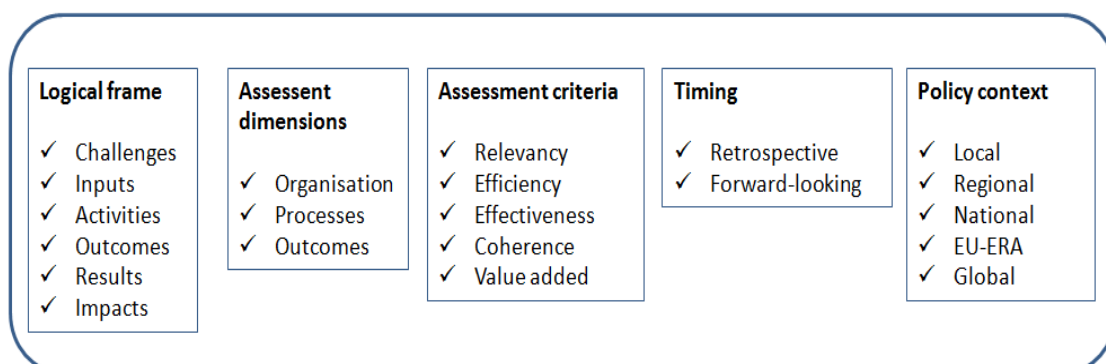


Figure 4 - Options for the framework structure
(own elaboration)

After this review of existing assessment frameworks, the analysis of the SCAR mandate and key strategic documents, in particular the 2015 SCAR Reflection paper, aimed at identifying SCAR specific characters and a first set of relevant observable and expected outcomes, to be then refined through direct confrontation with SCAR members and stakeholders.

3.2 Participation to SCAR and CASA activities and talks with key informants

Following this desk-based analysis, the information needed to refine the identification of expected SCAR outcomes (then translated into the three target areas and the related evaluation questions) has been obtained through participatory activities in which the intermediate drafts have been discussed with SCAR actors. These activities are represented by talks with key informants, participation in SCAR and CSA CASA activities and organisation of dedicated slots reserved for discussion on the IAF at the SCAR working groups meetings.

The direct participation in SCAR and SCAR-related events and activities was an important element for the preparation of the IAF. More specifically, attending the SCAR Plenary meetings, Steering Groups and Conferences, and the participation in various working groups and ad hoc groups made it possible to harvest first-hand information on the actual work of SCAR, within and beyond the official mandate.

At the same time, the participation in these events provided the opportunity to have talks with experts and delegates with a long experience in SCAR and a wide personal vision of what SCAR was expected to be, what currently SCAR is, what it could be in the future.

In parallel, the participation in CASA activities and the frequent exchanges with the groups in charge of other CASA tasks gave the opportunity on the one hand to collect additional input, on the other hand to exploit synergies and limit duplications between different CASA activities.

3.3 Participatory meetings at SCAR WGs

The subsequent step of the process of definition of the IAF was based on the direct confrontation with the SCAR working groups, which are the cradle of most of the actual activities and outcomes of SCAR. These confrontations were fundamental to refine the identification of the target areas and the evaluation questions, based on observable and expected SCAR outcomes.

A first draft of the IAF was then prepared, with specific regard to the identification and description of the target areas and on the related evaluation questions. The various SCAR working groups were then asked to provide feedback on the draft IAF document, with the aim to promote a participated definition of the IAF involving the bodies that actually carry out most of the activities expected to have an impact. This happened through the participation of the author of this work, whenever possible, to one meeting of each WG.

WGs chairs and co-chairs had been asked in advance to dedicate a slot for a discussion on the IAF in the respective meetings agendas. A draft with a description of the target areas and evaluation questions had been provided before each meeting with indications of the kind of feedback expected (relevancy of each target area, and each evaluation questions, unclear questions, suggestions about possible further points to address, etc.). Answering the actual questions was not required, the focus being on the structure and content of the questions themselves.

In some cases, direct participation was not possible, and the exercise was carried out by email.

It is important to underline that the aim of this confrontation with the WGs was not to identify evaluation questions tailored on current WGs (that may be different when the IAs will be possibly carried out), but to interpret WGs diversity (thus SCAR complexity) with evaluation questions flexible enough to be applied on future WGs or a different constitution of the current WGs.

Indeed, the engagement of SCAR groups and CASA members in fine tuning the IAF was aimed at two main objectives:

- triangulating desk research with experts' knowledge and expectations on the target areas identified to define the SCAR activities and the related evaluation questions.
- developing a common understanding on the assessment's principles, aims and contents, which should later on facilitate the best implementation of the IAF and the prompt follow-ups of the results.

Besides, these meetings provided an opportunity for joint reflection and information sharing among the groups and the groups' members that were encouraged to discuss the SCAR role beyond the initiatives of their specific group. In this sense, they also represented a dissemination activity.

3.4 Second round of feedbacks and final elaboration

The outcomes of the discussion held in the working groups led to refine the IAF and, subsequently, to prepare a first draft of the "Strategy with Implementation Plan" (Grando 2019 - CASA Deliverable 3.9). From this point of time onwards, the refinement of the two deliverables proceeded in parallel.

The two documents have been then sent for a second round of feedback to all SCAR national delegates and to the SWGs/CWGs chairs and co-chairs. Comments and suggestions (again, not answers) have been asked on the overall texts, but with specific regard to the evaluation questions, in relation to their relevancy, to the clarity of the content and wording, and any other useful element.

The feedback given via email or orally, has been used for the final refinement of the documents.

4. IAF RATIONALE AND STRUCTURE

This section provides the definition of "impact" adopted in the IAF and the description of the logical frame of the assessments which leads, in the next section, to the identification of the three target areas and related evaluation questions.

4.1 Definition of impact

The definition of impact adopted in this IAF follows the debates developed within the CSA CASA meetings¹³, which highlighted the peculiar nature of SCAR as a space of confrontation and coordination and as a source of advice, whose actual final impacts are highly indirect. If there is always a potential hiatus for a policy action between fulfilling its own objectives and having a measurable impact on "the world out there", this is clearly the case for an initiative like SCAR.

Besides, it seems useful to focus on targets that are more under SCAR's control rather than on broader socio-economical or environmental impacts that depend on a long chain of political decisions and other variables beyond the actual SCAR influence. This choice reflects the need to meet the objectives of the future impact assessments, which are focused on identifying SCAR strengths and weaknesses, highlighting its value added and deriving suggestions to improve its efficacy, rather than on producing a report card with good and bad marks for each group, initiative or MS/AC.

Thus, phenomena and indicators describing the overall agriculture innovation and bioeconomy development in Europe were not considered, also in consideration of the fact that these features are already being monitored in other initiatives and by other actors.

Similarly, the impact that SCAR can have in the research field must be observed having in mind that SCAR is expected to impact on the research policy rather than directly on research. To cite an example, during a work performed for the SCAR SWOT analysis carried out with the support of CASA (Devaney and Henchion 2018), one of the main impacts of SCAR indicated by the MSs was identified in an "intermediate" outcome like the contribution to the establishment of ERA-NETs, JPIs and other coordination actions. This means that SCAR impact on research is better assessed looking at policy documents,

¹³ In particular, at the Bonn meeting in March 2017, and at the Workshop held in Bruxelles in September 2018 on the Light Touch Evaluation of the SCAR WGs.

partnerships and strategies rather than focusing on individual published papers or other similar research-related indicators.

An open definition of impact is also rooted in the outcomes of the so-called "Light touch evaluation" of the WGs activity (SCAR 2018). The exercise highlighted that, while the activities of each group may be clearly identified, their impact was not so, and that the perception itself of what has to be meant by "impact" differs among groups and group members (ibid. p.7).

These different perceptions are also due to the fact that activities and outputs vary widely, ranging from workshops and meetings, to policy briefs and technical notes, to studies and mapping. Besides, some groups act more like 'think tanks', whereas others are expected to deliver more concrete output; some have a rather narrow thematic coverage, whereas others tend to cover wider areas of interest (SCAR 2018, p.6).

In this adaptation of the concept of "impact" to the SCAR peculiarities, we also relied on the broad definition of impact given by the EC itself, for which "the term impact describes all the changes which are expected to happen due to the implementation and application of a given policy option/intervention" (EC 2017/b) and to the even broader USAID definition as 'A result [sic] or effect that is caused by or attributable to a project or program' (USAID 2009). This, always having in mind that the longer causal chain of actions and consequences to which SCAR participate must end up with "changes in people lives" (which is definition of impact given by the United Nations (UNDP 2011)).

4.2 Complexities of the assessment

The IAF has been developed in the aim to have assessments capable to explore strengths and weaknesses of the SCAR action and to identify of potential for improvement. This objectives, applied to a policy coordination initiative in the agriculture and bioeconomy fields, present a high level of complexity, and related challenges, from different perspectives:

- political: SCAR has different objectives: from networking to policy agendas alignment, from knowledge production and sharing to and strategic advice, and relates to different political and institutional levels (States, EU, global partnerships);
- scientific: agriculture and bioeconomy cover a range of sectors that increases the complexity of an overall evaluation: from primary production to food processing, from bio-energy to bio-based materials, and is strictly

intertwined with other, similarly complex, research policy fields, like for example the circular economy, or animal and human health;

- social: research for innovation is now seen as a complex multi-actor process based on integration of policy, science and business, where heterogeneous players interact, participate and co-evolve;
- geographical: development, potential and policy frameworks for agriculture and bioeconomy differ among countries and regions, which entails a degree of flexibility in the design of a common framework.

The broad remit is seen as a point of strength of SCAR, as argued in the SWOT developed for the CSA CASA (D3.2, p. 19). This requires an IAF capable to account for this wideness and subsequent complexity.

Rationale and methodology of the assessment process aim at respecting and reflecting these complexities.

4.3 The logical frame and the three-level assessment grid

A clear impact assessment design requires the definition of a logical frame, which implies identifying strategic elements (like inputs, outputs, outcomes, impacts) and their causal relationships (OECD, 2010)¹⁴.

According to the concept of SCAR "impact" developed in section 4.1, this impact can be found in the research policy arena itself, which is the environment in which SCAR operates. Thus, looking at the SCAR aim to enhance cooperation, coordination, and information exchange among MSs/ACs (SCAR 2015) through the four "main initiatives" highlighted in Fig. 2, it is possible to draw a logical frame describing the causal chain of the process to be assessed.

We propose a slightly simplified chain, with categories adapted in terms of jargon and meaning to the peculiarity of SCAR as a multi-level research policy coordination initiative which is different from a project, a strategy or a partnership.

Fig. 5 presents this simplified scheme that does not differentiate between outcomes and impact following the broad definition of impact that we assume in this framework. This scheme gives a communicative visual representation of the logical chain linking the challenges SCAR has to face with the SCAR "impact".

¹⁴ For example the impact assessment of the ERA-LEARN (Amanatidou et al., 2016) identifies a detailed chain of strategic elements for the evaluation of public to public partnerships: Challenges - Objectives - Inputs - Activities - Outputs - Outcomes - Global impacts

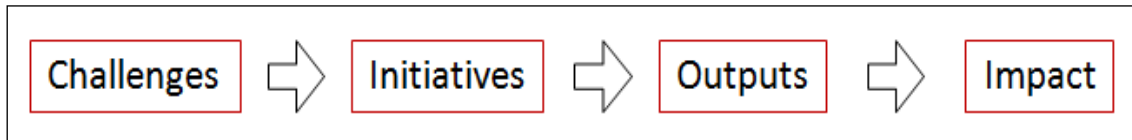


Figure 5 - Logical chain of the SCAR impact
(own elaboration)

The elements are related to the categories previously identified. In particular:

- "*challenges*" correspond to the overall ambitions of SCAR as indicated in the key strategic documents like the original SCAR mandate and the 2015 reflection paper, as argued in section 3. They are not directly addressed by the IAF; however, they could be of interest for the assessment outcomes, as some of the opinions and suggestions harvested through the questionnaires may regard the enduring relevancy of SCAR challenges as expressed in the key documents;
- "*initiatives*" represent the four pillars of SCAR activity, as expressed in the SCAR reflection paper (SCAR 2015) and showed in Fig. 2: the production of foresights, the development of common research agendas, the carrying out of EU capacity mapping and the delivery of strategic policy advice;
- "*outputs*" reflect the outputs of SCAR, comprising the related working groups and ad hoc groups, (like conferences, workshops and seminars, as well as documents produced or promoted like position papers, policy briefs, technical notes, foresight exercises, etc.). These outputs can be mainly harvested through the desk analysis supporting the possible refinement of the questionnaires as well as the analysis of their results. The questionnaires themselves could provide additional information on the SCAR outputs, beyond those collected through the desk research;
- "*impact*" represents the fields of possible impact for SCAR, expressed in the three identified "target areas". These target areas, described in the following subsection, reflect the broad and tailored definition of impact that has been discussed in paragraph 4.1. In this sense, they include also the SCAR "outputs" described above alongside the less direct effects of SCAR activity in the policy research coordination domain.

5. THE TARGET AREAS AND THE RELATED EVALUATION QUESTIONS

As already mentioned, the IAF is structured along three target areas. They aim at reflecting the SCAR objectives and the SCAR main initiatives as identified in the strategic documents, but also the actual or potential fields of impact emerged from the confrontation with SCAR members and from the participatory process carried out for the definition of the IAF. Besides, they are defined with the aim to make the SCAR “impact” an operational object, which means likely to be assessed through analyses that combine quantitative and qualitative elements.

Each target area is associated to a "main evaluation question", which is articulated in a set of evaluation questions. These questions represent the backbone of the framework, and are meant to be addressed through the submission of questionnaires, supported by a desk analysis and followed by a focus group, as detailed in the IP.

To make these evaluation questions operational, for each of them a further analytical level is developed. In this third level specific options or types of answers are suggested to the respondents in the aim to encourage them to provide additional information, examples and anecdotal evidence according to common lines of reflection. Indeed, the harvesting of examples and anecdotal evidence has been deemed highly important by many of the feedbacks received.

Thus, we have a three-level assessment grid, summarised in the scheme shown in Fig.6.

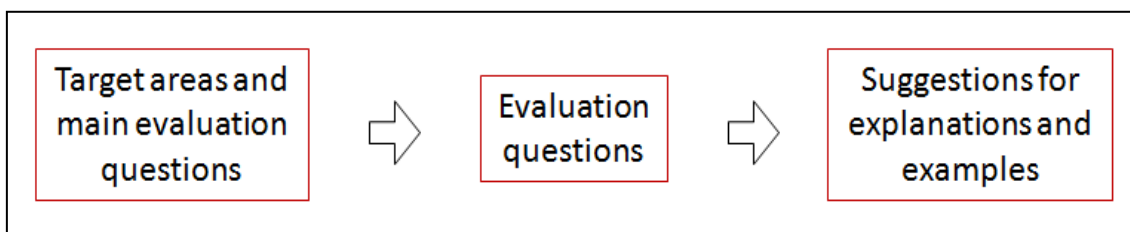


Figure 6 - The three level assessment grid
(own elaboration)

The three identified target areas, as main fields of expected impact for SCAR, are the following:

1. *Alignment and coordination - Strategic orientation towards a harmonised research agenda*
2. *Strategic Advice - Contributing to a shared knowledge in support to decision-making processes*
3. *Networking and community building - Triggering a cohesive research policy community*

Figure 7 shows the main links between the four SCAR main initiatives as described and represented in the Reflection paper (SCAR 2015) and the three target areas. Connections are identifiable among all the initiatives and the target areas, but the ones showed in the Figure are more direct and explicit. As better described in the following, the first two target areas are more explicitly rooted in the SCAR documents, whereas the third one has emerged from the opinions collected during the IAF production process.

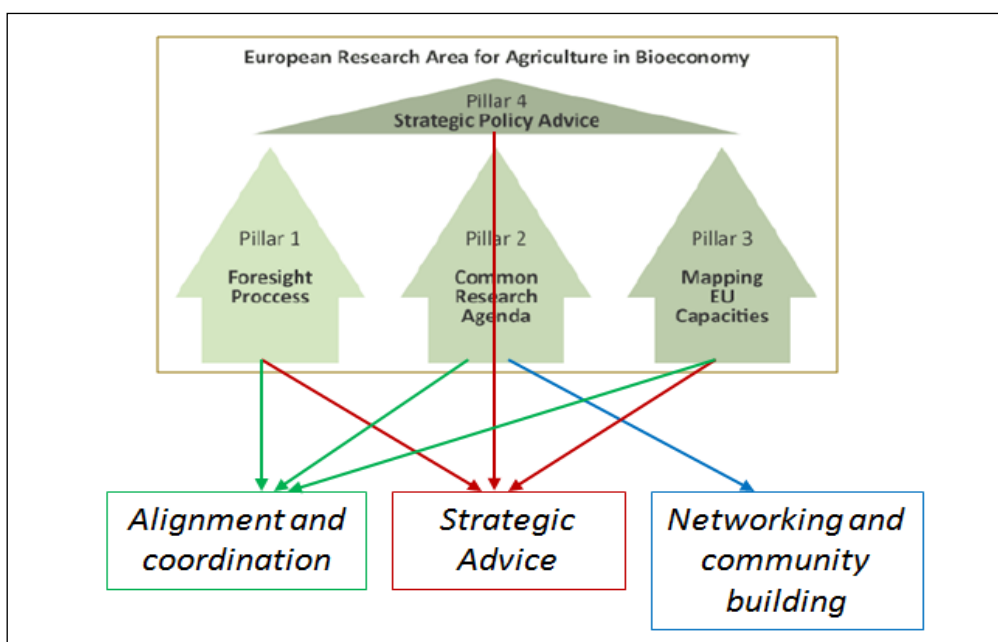


Figure 7 - The three target areas in relation to SCAR main initiatives
(own elaboration, based on the Figure provided in SCAR 2015, p. 10)

In particular, the role of Foresights and Mapping for alignment is expressed by the SCAR Reflection paper, which argues that the Foresights can be a basis for prioritising research and other coordination activities (SCAR 2015, p.11) and mapping exercises may evolve into analytical approaches allowing better alignment on national research programs (ibid., p.15).

A description of the three target areas with associated main evaluation questions is given below.

As mentioned, each main evaluation question is unpacked in more specific evaluation questions, to be submitted to a set of respondents as detailed in the IP. Target areas and evaluation questions together correspond to the first two levels of the assessment grid. The overall assessment table is shown in Annex 1, with the target areas and main evaluation questions, the specific evaluation questions and the third level with additional suggestions to guide the respondents.

Details on how this additional information is organised in the questionnaire are given in the IP (Grando 2019).

5.1. Alignment and coordination

Strategic orientation towards a harmonised research agenda

This target area accounts for the capacity of SCAR to promote alignment of the different national research agendas, among them and with the EU-level pertinent strategies. This alignment is principally developed through the partnerships and policy coordination initiatives created at the EU level and then through the subsequent joint calls. In this context SCAR represents an important intermediate arena for confrontation and coordination between the EC on the one side and the various forms of partnership which base their activities on research agendas and/or joint calls on the other.

Alignment is a complex concept whose understanding can be usefully rooted in the actual EU policy landscape. In broad terms, alignment reflects “the need to reconcile the tension between inherently global research fields and research spaces that are largely nationally organised” (ERA-LEARN, 2017). According to the definition given by the High Level Group for Joint Programming and adopted by ERA-LEARN, alignment is “the strategic approach taken by [EU] Member States to modify their national programmes, priorities or activities as a consequence of the adoption of joint research priorities (...)” (ERAC-GPC, 2014). The definition has been then extended to cover also joint innovation priorities (ERA-LEARN 2016).

It is important to underline that alignment does not necessarily means having the same priorities and action lines for all countries. In some cases, aligning and coordinating efforts means developing different but complementary research agendas, or just developing own strategies and programmes with awareness of what others are doing.

Alignment and coordination can take place at different stages of a programming cycle: planning, strategy, funding, implementation. SCAR's influence, in this regard, mainly concentrates on planning and strategy levels. Funding and implementing are also indirectly considered as long as we look at the various programming and funding initiatives promoted by SCAR. Thus, the creation itself of the various coordination initiatives born upon SCAR impulse, with related resources and calls, are among the features to be investigated, alongside the more general contribution given or inspired by SCAR to the definition of a common research policy in the EU and in the ERA.

In this regard, one of the main findings of IMPRESA is that “national research priorities are increasingly aligned with the European Framework Programme” and that “improved coordination of research activities is partly facilitated by the thematic structures of EU Framework Programmes”. The IAs, here, would allow the completion of the pipeline of knowledge through providing information on the extent to what such alignment and coordination have been achieved because of the action taken by SCAR in supporting the H2020 programme definition.

This target area also covers the broader coordination and possible harmonisation that takes place between the strategies/policies for agriculture and bioeconomy and the ones developed for related policy areas (CAP, Circular Economy Package, Food 2030, etc.) where there is potential to increase synergies.

The coordination can also take place at the global level, between the EU strategies/policies and the global ones in the agricultural innovation and bioeconomy fields (for example with the Sustainable Development Goals, the COP 21 agreement or the International Bioeconomy Forum agenda).

In all these fields of interest, the assessment should aim at identifying the added value due to the specific nature and action of SCAR. The attention given to the collection of examples and anecdotal evidence serves this purpose.

The main evaluation question

"Is SCAR effectively supporting the alignment and coordination of the research policy agendas of member states and associate countries in the agriculture and bioeconomy and related fields, at the EU and at the global level?"

The ten related evaluation questions

The first five questions reflect the work made within SCAR aimed at identifying common research priorities in existing thematic areas, at strengthening synergies between different policies/strategies, at agreeing on new thematic

areas for research, and at harvesting and sharing needs emerging from each country. They represent similar and connected forms of impact; however, it is useful to highlight their specificities in the assessment grid, also to encourage the harvest of specific anecdotal evidence covering each of the four forms.

The impact of SCAR can be also found in the partnerships, for example like ERA-NETS, whose creation has been favoured or driven by SCAR. Thus, three questions follow which regard the role of SCAR as cradle of joint programming initiatives, whose direct impact on research alignment can be referred back to the SCAR activity. The questions address the overall capacity to promote initiatives of joint programming with adequate resources and the extent to which these initiatives match priorities and capabilities of each MS/AC.

The last two questions enlarge the view to the global level, reflecting the coordination of research policies and the joint undertaking with macro-regional and extra-European initiatives.

5.2. Strategic advice

Contributing to shared knowledge in support to decision-making processes

This area reflects the extent to which SCAR is capable to provide expert advice, channelling information, knowledge and opinions towards the right and relevant recipients, with the aim to facilitate and support decision-making processes. This target area accounts for the transmission of knowledge generated within or through SCAR (for example by the Foresight exercises), of knowledge conveyed in SCAR by each MS/AC or experts, and then assembled, or of knowledge co-created between SCAR and other institutions and organisations.

The advice can take various forms: foresight studies, mapping exercises, explorative studies, policy briefs, technical notes, SWOT analyses, scenarios design, prioritisation exercises, are examples of the contents here considered.

It is worth here underlying the interrelation between the three target areas, which have been identified to facilitate the structuration of the assessment, but unavoidably relate to each other. Knowledge creation and sharing have a direct link to the advice SCAR can provide, which is the impact reflected by this target area, but at the same time they support activities related to the target area on alignment and coordination, and can contribute to networking and to the creation of a shared repertoires (accounted for by the third target area).

With particular regard to the first two target areas, SCAR strategic advice has certainly an influence on alignment and coordination when that advice regards a EU strategic or policy document. However, the first target area accounts for the

SCAR impact on strategies, policies and joint initiatives as long as it relates directly to coordination and alignment, whereas this second target area focuses on the more general advice given by SCAR to actors, institutions and initiatives. The identification of relevant fields to investigate, or new emerging priorities, methods, approaches, goes beyond coordination and alignment, although the various influences cannot be sharply separated.

It is important to note that the advice given by the SWGs/CWGs, whatever the form it assumes (policy briefs, technical notes, explorative studies etc.), does generally not represent the 'official' view of the MSs/ACs, even of those represented in the WG (by government representatives or others). When delivering advice, groups act as think tank rather than as official countries' voice (SCAR 2018).

The main evaluation question

"Does SCAR produce useful advice influencing agriculture and bioeconomy policy design and coordination for member states and associate countries, and at the EU level?"

The thirteen related evaluation questions

All the evaluation questions of this target area (with the exception of the last two questions) have been split into two separate questions, one specifically referred to the Foresight and another referred to the rest of SCAR-related initiatives and activities. This choice reflects the consideration for the relevance but also for the peculiarity of the Foresight exercises (including the long intervals between one Foresight and the following), which require a specific attention.

Given this overall structure, the first six questions concern the influence of information and recommendations provided by SCAR on policies and strategies at national and, respectively, at the EU level. The reference is first on the most pertinent strategies or policies (for example: the national and EU bioeconomy strategies, the Research Framework Programmes, like H2020 or Horizon Europe, whose design or whose implementation¹⁵ is covered by the assessment timeframe, etc.). Other policies or strategies, less directly related to the SCAR remit, but for which an influence is identifiable, should also be mentioned by the respondents.

¹⁵ In the answers, examples and anecdotal evidence can be referred to the main strategy or policy documents, but also to updates/revisions of those documents as well as to the annual or multi-annual implementation plans that have been influenced within the selected assessment timeframe.

The four following questions regard the capability of SCAR advice to go beyond the policy sphere, reaching the public and private research community respectively.

The last three questions focus on an activity which is to a certain extent horizontal and "instrumental" vis-à-vis the actual impact that SCAR advice can have, as they regard the dissemination carried out by SCAR to secure that SCAR findings and reports are effectively shared with relevant users and other competent actors.

5.3. Networking and community building

Triggering a cohesive research policy community

This target area reflects the extent to which SCAR has contributed to the creation of a wide and cohesive research policy community at the EU and ERA levels, but also at the global scale, characterised by mutual knowledge and shared trust based on interaction and on the development of common approaches and repertoires.

This area is less rooted in SCAR official documents and outcomes; however, it was suggested and supported by many of the long-experienced SCAR members, as a crucial added value given by SCAR. Besides, the role of the SWGs/CWGs as laboratories where shared ways of working are developed has been highlighted in the SCAR Rolling Plan 2019, as mentioned above in section 2.4. The nature of SCAR as an initiative not directly connected to joint funding creates the conditions for broader talk and wider agendas, open to wide-ranging exchanges of ideas alongside more operational activities, that together contribute to the creation of a cohesive policy environment open to the research communities.

The degree of representativeness and inclusion of MSs/ACs within SCAR and SCAR-related initiatives and the knowledge of SCAR activities and documents are preconditions for the achievements of that impact, and they are also explored in this target area.

Networking and community building can have important effects for SCAR-related activities, but also represent general assets for the research policy environment, likely to have broader impacts not fully predictable or measurable.

The main evaluation question

"Is SCAR capable to create a European research policy community in the agriculture and bioeconomy fields and to reinforce the science-policy-business dialogue?"

The seven related evaluation questions

The first three questions regard what we can see as a pre-requisite for the construction of a cohesive community: They respectively address the awareness itself of what the SCAR does by the people variously involved in its activities, the level and quality (pro-active participation of the representatives) of the participation by the various MSs/ACs¹⁶, and an overall judgement on the current SCAR structure's capability to maximise effectiveness and impact.

The two following questions represent the core of this target area, as they investigate the SCAR capacity to create trust, common approaches and shared among institutions, public and private research community, within MSs/ACs and with the EC.

The last two questions are specifically dedicated to the engagement of the private research and business sector in the identification of research needs and priorities and in joint undertaking.

5.5 Overall evaluation issues

There are some overall evaluation issues which is worth clarifying to better understand potential and limits of the assessments to be carried out under the proposed framework.

First, it is important to remember, among the overall evaluation issues, the specific meaning of the term "impact" itself, when referring to an initiative like SCAR, as already argued in detail above. The evaluation questions are sometimes referable to the evaluation of outcomes and intermediate results, which in some cases are difficult to be captured or measured. However, this does not mean that meaningful information cannot be harvested and discussed, in the aim to identify points of strength and weakness and areas for improvement.

The multi-level complexity of SCAR has been already described in the Introduction. This complexity requires an IAF capable to cover as much as possible the range of potential impacts, but at the same time leads to the awareness that it is impossible to account for all possible effects of SCAR

¹⁶ These two questions reflect the issues already investigated within the CSA CASA in the D1.1 - Representation and Inclusion in SCAR (te Boekhorst, 2017).

existence. This non-exhaustiveness of the assessments is a common feature of any kind of exercise, and it is particularly true for an initiative like SCAR.

A crucial issue is the need for flexibility in the design of the IAF, because the object itself of the evaluation (the SCAR structure), the context in which it operates and the consequent objectives may change from one exercise to the following. This is particularly true for the activity of the various WGs, as stated in the Report on the evaluation of the working groups: “Activities within groups have evolved and adapted according to the group’s resources and to the changing needs of the target audience” (SCAR 2018, p.7). According to the results of the SWOT analysis conducted within the CSA CASA, its “evolving and flexible” structure is regarded by the respondents as one of the strong points of SCAR: “A belief that the structure of SCAR is flexible and can adapt to any new role contributed to this strength for several other interviewees, with a belief that SWGs and CWGs in particular can be added or removed as context demands” (Devaney and Henchion 2018, p.18).

The IAF and the actual carrying out of the assessments must provide an informational support to this flexibility, rather than imposing a fixed evaluation scheme.

A secondary but still important need of flexibility is due to the uncertainty about the conditions of future IAs, with regard to both the amount of resources and the periodicity. Thus, it is worth indicating a basic level of analysis, while keeping the door open for possible additional methods (for example: case-studies) according to the available resources¹⁷.

This twofold flexibility in the assessment design leads to a possible limit of the assessment itself: the absence of a consistent baseline of information to compare different assessments with each other. Of course, there is no baseline identifiable for the first exercise, but to a certain extent also from the following ones, as the object of evaluation, the context in which SCAR operates and its objectives, will be different for different assessments.

¹⁷ The rationale of this flexibility and some possible options to make it operational are described in more detail in the IP.

ACKNOWLEDGMENTS

The author of this work has relied upon the precious support given by his colleagues of the Mipaaft/CREA CASA team, in particular Serenella Puliga and Simona Cristiano. A continuous support has also been given by the WP3 leader BLE, and by the project Coordinator Juelich.

Special thanks to chairs, co-chairs and members of the SCAR SWGs/CWGs, to the national SCAR delegates and to the management group of CASA, who gave their feedbacks on the intermediate drafts of the work. Their contribution has been crucial to develop a set of evaluation questions better tailored on the actual work of SCAR.

REFERENCES

Amanatidou, E., Cunningham, P., Cox, D., contr. Hunter, A., Dinges, M., Köngeter, A., Meyer, S. (2016) *Background Document on P2P evaluation / impact assessment*, ERA-LEARN 2020, Deliverable: 3.4b <https://www.era-learn.eu/monitoring-and-assessment/Monitoring-and-impact-assessment-of-networks/ERALEARN2020D3.4bBackgroundDocumentfortheP2PIAGuideprefinal.pdf>

Devaney, L., Henchion, M. (2017): "Bioeconomy Research & Innovation Policy Landscape in Europe: A Review", CASA Deliverable 3.3.

Devaney, L., Henchion, M. (2018): "SWOT of the SCAR: The Results", CASA Deliverable 3.2.

EC (1974) *Regulation (EEC) No 1728/74 OF THE COUNCIL of 27 June 1974 on the coordination of agricultural research*; European Commission: Brussels, Belgium.

EC (2012): "A Reinforced European Research Area Partnership for Excellence and Growth", EC COM(2012) 392 final, Brussels, 17.7.2012.

EC (2015): "Closing the loop - An EU action plan for the Circular Economy", EC COM(2015) 614 final, Brussels, 2.12.2015.

EC (2016/b) Evaluation study of the implementation of the European Innovation Partnership for Agricultural Productivity and Sustainability. Final report. European Commission B-1049 Brussels, November 2016.

EC (2017/a): "The future of food and farming", EC COM (2017) 713 final, Brussels, 29.11.2017.

EC (2017/b): Better Regulation Guidelines, Commission Staff Working Document, SWD (2017) 350 Final.

EC (2018): "A clean plant for all", EC COM 2018 773 final, Brussels 28.11.2018.

ERA-LEARN (2016): Revised mandate for GPC 6214/16 RECH 21, <https://www.era-learn.eu/gpc/summary-conclusions/gpcmeetings/2016411GPCMandatest07309.en16.pdf>

ERA-LEARN (2017): SWOT analysis on alignment modalities, ERA-LEARN Deliverable D 4.5.

ERAC-GPC (2014): 1305/1/14/REV1, 30 October 2014

Grando, S. (2019): "Strategy with Implementation Plan", CASA Deliverable D3.9.

Hagelüken, C. et al. (2016): The EU Circular Economy and Its Relevance to Metal Recycling, in: Recycling, 1(2), S. 242–253.

McCormik, K. and Kautto, N. (2008): The Bioeconomy in Europe: An Overview. *Sustainability* 5, 2589-2608; doi:10.3390/su5062589

OECD (2010) Glossary of key terms in evaluation and results based management. <http://www.oecd.org/development/peer-reviews/2754804.pdf>

Ramcilovic-Suominen, S. and Pölzl, H. (2017): Sustainable development e A 'selling point' of the emerging EU bioeconomy policy framework?, *Journal of Cleaner Production* (2017), <http://dx.doi.org/10.1016/j.jclepro.2016.12.157>

SCAR (2015): *Reflection Paper on the Role of the Standing Committee on Agricultural Research*. SCAR and EC, Brussels.

SCAR (2018): *Report to the 29th SCAR Plenary*. SCAR Task Force on the Evaluation of the SCAR Working Groups.

Syberg Hansen, S. et al. (2013): FACCE-JPI Evaluation Framework - Framework for monitoring and evaluation of FACCE-JPI and its joint actions. Deliverable no. 3.5 FACCE CSA, September 2013. <https://www.faccejpi.com/Document-library/Monitoring-and-Evaluation-Framework>

te Boekhorst, D. (2017). Representation and inclusion in SCAR Task 1.1 Analysis of the key factors of involvement and representativeness. CASA Deliverable 1.1 December 2017 [online] Available at: <https://scar-europe.org/index.php/casa-documents> (accessed: 16/4/18).

UNDP - United Nations Development Group (2011): Results-Based Management Handbook. Available at: <http://bit.ly/1nPVO65>

USAID - United States Agency for International Development (2009): Glossary of Evaluation Terms. Available at: <http://1.usa.gov/1Tow8cN>

Wesseler, J., Spielman, D.J., Demont, M. (2010): The future of governance in the global bioeconomy: Policy, regulation, and investment challenges for the biotechnology and bioenergy sectors. *AgBioForum*, 13(4), 288-290. Available at <http://www.agbioforum.org>.

Winther Jørgensen, J., Ørsted Nielsen, H., Hunnicke Nielsen, V. (2018): "Report no. 1 to SCAR - Monitoring of implementation of recommendations in current SCAR Foresight", CASA Deliverable 2.10.

ANNEX 1

Table with target areas and evaluation questions

N°	Evaluation questions	Suggestions for the explanation/examples box
Target area "Alignment and coordination". <i>Main evaluation question: "Is SCAR effectively supporting the alignment and coordination of the research policy agendas of member states and associate countries in the agriculture and bioeconomy fields, at the European and at the global level?"</i>		
1	Has SCAR given a specific contribution to the definition of common research priorities among member states and associate countries in the agriculture and bioeconomy fields?	1) Which priorities and in which documents (SRIAs produced by CWGs or by ERANETS or other partnerships, etc.); 2) For which strategies/policies (H2020, HEU, CAP, etc).
2	Has SCAR given a specific contribution to the valorisation of the possible synergies between different EU strategies and policies?	1) Which SCAR activity (Meetings, Policy briefs, Mapping, etc.); 2) Which synergies; 3) For which strategies/policies (H2020, HEU, CAP, etc).
3	Have SCAR Foresights given a specific contribution to the identification of new agreed thematic areas and topics for trans-national cooperation?	1) Which thematic area; 2) For which strategies/policies (H2020, HEU, CAP, etc)
4	Have SCAR (with initiatives other than Foresights) given a specific contribution to the identification of new agreed thematic areas for trans-national cooperation?	1) Which thematic area; 2) For which strategies/policies (H2020, HEU, CAP, etc)
5	Has SCAR been capable to collect research needs and priorities for agriculture and bioeconomy emerging by member states and associate countries?	By sector: agriculture, forestry, fishery, aquaculture, bio-fuel, bio-based materials, By documents in which national needs and priorities are reflected; Answers by/for each country
6	Has SCAR been able to promote joint programming / joint funding initiatives (like ERANETS, JPIs, EJPs) with the mobilisation of adequate resources ?	By SCAR initiative (Foresight, others). Reference to SCAR role in the establishment/development of ERA-NETS, JPIs, EJPs, etc., with reference to the amount of resources mobilised.
7	Does joint programming / joint funding deriving from SCAR initiative reflect the	With reference to specific SCAR activities or initiatives and possibly with examples of

	priorities for the development of agriculture and bioeconomy emerging from your country?	<i>national priorities.</i>
8	Does joint programming / joint funding deriving from SCAR initiative match the capabilities of the actors of the agriculture and bioeconomy research system in your country?	<i>With reference to specific SCAR activities or initiatives and possibly with examples (rules for participation, minimum thresholds of financial commitment, etc.).</i>
9	Has SCAR strengthened cooperation and strategic planning with other players in the global arena ?	<i>Indication of the partnerships, platforms or other initiatives with description of SCAR role in documents, events, etc.</i>
10	Has SCAR promoted joint undertaking and joint funding with other players in the global arena ?	<i>Indication of the partnerships, platforms or other initiatives with description of SCAR role in documents, events, etc.</i>
Target Area "Strategic advice". <i>Main evaluation question: "Does SCAR produce useful advice influencing agriculture and bioeconomy policy design and coordination for member states and associate countries and at the European level?"</i>		
11	Have national strategies and programs been influenced by SCAR Foresights recommendations?	<i>By type of national strategy/program (ex: innovation strategy, bioeconomy strategy, circular economy strategy, etc.)</i>
12	Have national strategies and programs been influenced by SCAR extra-Foresights recommendations (Policy briefs, etc.)?	<i>By type of national strategy/program (ex: innovation strategy, bioeconomy strategy, circular economy strategy, etc.)</i>
13	Have SCAR Foresights recommendations influenced EU strategies related to SCAR remit (agriculture, forestry, fishery, bioeconomy, circular economy, food etc.)?	<i>By type of strategy (ex: on innovation, on bioeconomy, on circular economy, others)</i>
14	Have SCAR recommendations (other than Foresights) influenced EU strategies related to SCAR remit (agriculture, forestry, fishery, bioeconomy, circular economy, food etc.)?	<i>By type of strategy (ex: on innovation, on bioeconomy, on circular economy, others); By SCAR output</i>
15	Have SCAR Foresights recommendations influenced EU policies related to SCAR	<i>By policy (ex: H2020, HEU, CAP, others)</i>

	remit (agriculture, forestry, fishery, bioeconomy, circular economy, food etc.)?	
16	Have SCAR recommendations (other than Foresights) influenced EU policies related to SCAR remit (agriculture, forestry, fishery, bioeconomy, circular economy, food etc.)?	<i>By policy (ex: H2020, HEU, CAP, others); By SCAR output (mapping, policy briefs, etc.)</i>
17	Has SCAR Foresights advice been taken into account by the public research community in the agriculture and bioeconomy fields?	<i>By research product (ex: papers, project proposals funded, presentations to conferences, etc.).</i>
18	Has SCAR advice (other than Foresights) been taken into account by the public research community in the agriculture and bioeconomy fields?	<i>By SCAR output (mapping, policy briefs, etc.). By recipient (ex: papers, project proposals funded, presentations to conferences, etc.).</i>
19	Has SCAR Foresights advice been taken into account by the private research and business sector in the agriculture and bioeconomy fields?	<i>By sector: i) agriculture and forestry, ii) fishery and aquaculture, iii) bio-fuel, iv) bio-based materials, v) others</i>
20	Has SCAR advice (other than Foresights) been taken into account by the private research and business sector in the agriculture and bioeconomy fields?	<i>By SCAR output (mapping, policy briefs, etc.). By sector: i) agriculture and forestry, ii) fishery and aquaculture, iii) bio-fuel, iv) bio-based materials, v) others</i>
21	Have you used SCAR documents (Foresights reports, Policy briefs, Studies, etc.) in your extra-SCAR activity ?	<i>Examples of utilisation of SCAR advice</i>
22	Has SCAR been able to disseminate its outcomes to relevant users at the country level (in particular to funding agencies and other pertinent authorities)?	<i>In relation to i) Single events like conferences or workshops, etc.; ii) communication tools like leaflets/flyers, newsletters, mailing lists, website; iii) dissemination of reports, briefs, studies</i>
23	Has SCAR been able to disseminate its outcomes to the competent recipients at the EC level ?	<i>In relation to i) Single events like conferences or workshops, etc.; ii) communication tools like leaflets/flyers, newsletters, mailing lists, website; iii) dissemination of reports, briefs, studies</i>

Target Area "Networking and community building".

Main evaluation question: "Is SCAR capable to create a European research policy community in the agriculture and bioeconomy fields and to reinforce the science-policy-business dialogue?"

24	Are you aware of the SCAR activities in which you are not directly involved?	<i>Answers by/for each person, with indication of the activities and outputs they are familiar with.</i>
25	Do your MS/AC representatives sufficiently participate and give a pro-active contribution to the SCAR activities?	<i>Answers by/for each country in relation to Plenary, Steering Group, SWGs/CWGs, other activities</i>
26	Is the current structure and governance of SCAR (Plenary, Steering Group, SWGs/CWGs, Foresight group) adequate to maximise SCAR effectiveness and impact?	<i>Attention paid to formal rules but also to actual ways of working.</i>
27	Has SCAR contributed to the creation of mutual trust and common approaches between the EC and the member states / associate countries?	<i>Indicate which SCAR activities played a major role.</i>
28	Has SCAR contributed to the creation of mutual trust and common approaches among funding agencies and other competent authorities of the various member states and associate countries?	<i>Indicate which SCAR activities played a major role.</i>
29	Has SCAR favoured the engagement of the private research and business sector in the identification of research needs and priorities in the agriculture and bioeconomy fields?	<i>By sector: i) agriculture and forestry, ii) fishery and aquaculture, iii) bio-fuel, iv) bio-based materials, v) others</i>
30	Has SCAR favoured the engagement of the private research and business sector in joint undertaking and joint funding in the agriculture and bioeconomy fields?	<i>Through which SCAR activity or initiative. By sector: i) agriculture and forestry, ii) fishery and aquaculture, iii) bio-fuel, iv) bio-based materials, v) others</i>

