casa

Common Agricultural and wider bioeconomy reSearch Agenda

D2.10

Report no. 1 to SCAR

Monitoring of implementation of recommendations in current SCAR Foresight

Task 2.5 Support to the Implementation of the 4th Foresight and its recommendations

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EUROPEAN UNION

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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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Summary

The 4th SCAR Foresight Exercise *Sustainable Agriculture, Forestry, and Fisheries in the Bioeconomy – A Challenge for Europe* (hereinafter: "4th Foresight") was launched in 2015. This report provides an evaluation of the dissemination and overall state of implementation of the 4th Foresight as well as how the implementation of the coming 5th SCAR Foresight can be improved. The report delivers on Task 2.5 in the CASA project with the deliverable 2.10.

Overall, the results show that the 4th Foresight has been disseminated well and it has been implemented to a quite high extent by e.g. national ministries in the EU Member States. The 4th Foresight has achieved programme impact in both research programmes and policy initiatives. Important points for improvement include the modes of communication of the foresight content, knowledge sharing of implementation practice, and inclusion of stakeholders early in the foresight process.

The report concludes with recommendations for future foresight implementation and a monitoring system based on the insights from the evaluation of the 4th Foresight. The further implementation will be followed and reported in D2.11 at the end of the CASA project.

Background

The Standing Committee on Agricultural Research (SCAR) has launched four foresights since 2007, 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. The latest foresight *Sustainable Agriculture, Forestry, and Fisheries in the Bioeconomy – A Challenge for Europe. 4th SCAR Foresight Exercise* was published in 2015. A foresight is defined as *an interactive process in which systematic explorations of future dynamics of science, technology, the economy and society are confronted with expectations and strategies of diverse actors. The aim is to identify and support viable long-term strategies and short-term actions for stakeholders* (Van der Meulen, De Wilt & Rutten, 2003:219).

The evaluation of the 4th Foresight has been planned in close dialogue with the SCAR Foresight Group and are based on advice from the SCAR Steering Group resulting in the following guidance when designing and implementing the evaluation:

- A quantitative representative evaluation should be performed in the form of a tick off questionnaire focused on yes/no questions.
- The information to be gathered should focus on the inclusion of the 4th Foresight Exercise recommendations in research programmes, policies and regulations.
- The target groups should be the Ministries and funders in Member States and Directorate-Generals in the EU Commission.

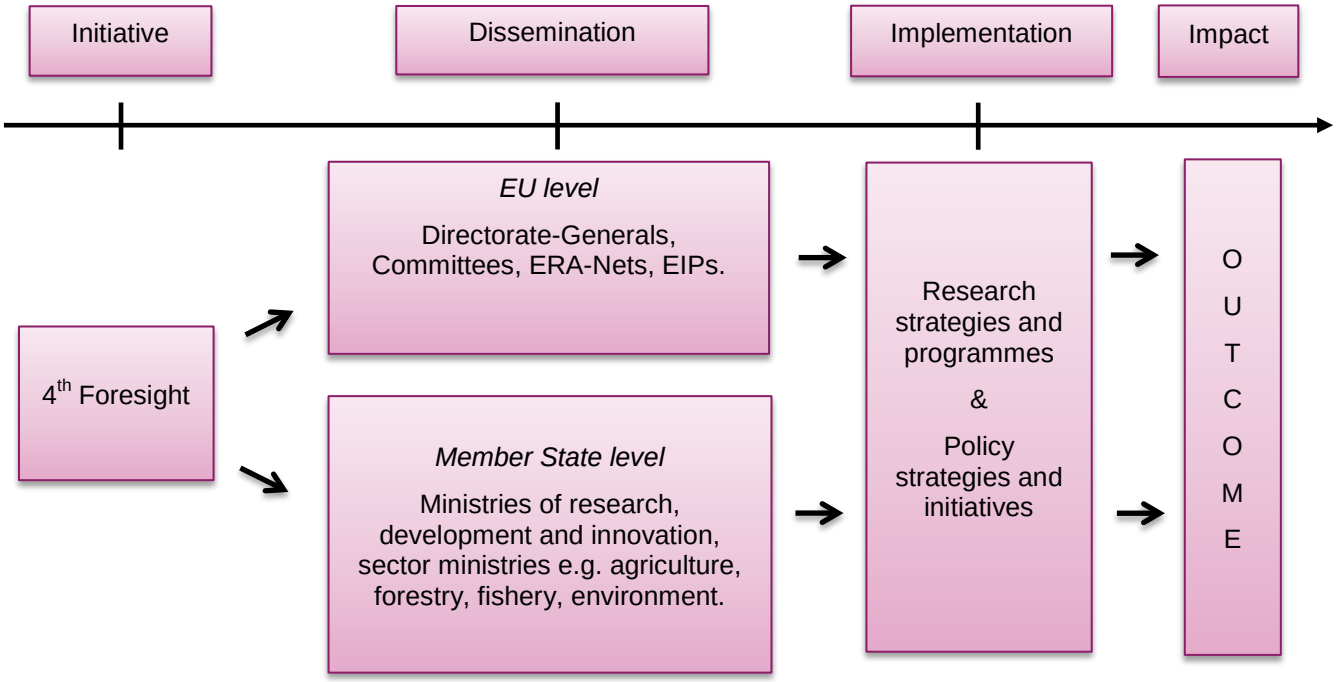
Guiding questions

The following four overall questions were identified for guidance for a questionnaire:

- How has the 4th Foresight been disseminated?
- To which extent have recommendations been implemented?
- What has posed challenges to the dissemination and implementation?
- How could dissemination and implementation be improved in the future 5th SCAR Foresight?

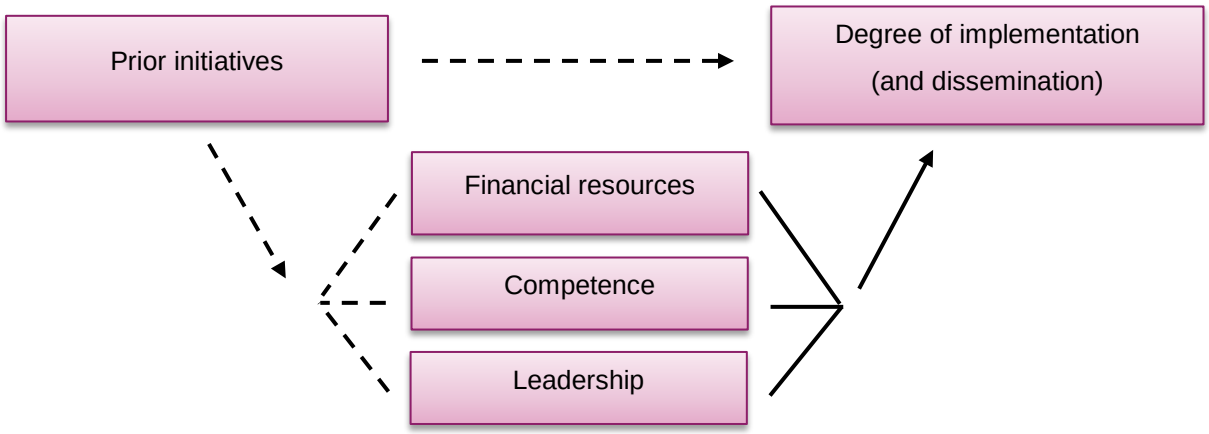
A successful foresight is defined as a foresight that achieves *programme impact,* meaning that it affects the content of policy (Carlof & Smith, 2010:36). This evaluation thus investigates the extent to which the core outcome of the 4th Foresight, namely the 19 recommendations, has achieved programme impact on strategies, programmes, and initiatives in European Member States and at the EU-level. The expected process of dissemination and implementation is visualised in Model 1.

Model 1: The process of dissemination and implementation.



The implementation of the 4th Foresight is expected to depend on the work done in national and EU organisations and may vary according to different factors such as economic resources, professional competences, communication by the leadership of the organisation, and experience from prior initiatives within the bioeconomy sphere. These expectations are drawn from classic public administration literature, namely the integrated implementation model (Winter, 2012) and are visualised in Model 2.

Model 2: Influential factors on the degree of implementation



Materials and methods

Data

To gather information a survey was set up including overall questions concerning the implementation process as well as specific questions on the implementation of the recommendations, namely the principles, research themes, and organisational principles. The survey was set up in the online programme Qualtrics[1] with the following structure using 7 blocks:

1. Block 1: Introductory questions covering the respondents place of employment, main area of work, and familiarity with the 4th SCAR Foresight.
2. Block 2: Questions covering the handling of the Foresight; how and by whom the respondents were introduced to the 4th SCAR Foresight, and whether they have forwarded it to new recipients.
3. Block 3: Questions of implementation beginning with a question of to what extent the respondents have implemented the 4th SCAR Foresight or aspects of it, followed by a question of whether the respondents' organisation has primarily implemented the Foresight in relation to research or policy aims, both or some other aim. Questions also cover economic resources, competences, leadership and prior initiatives.
4. Block 4: More specific questions of implementation, namely to what extent organisations have implemented each of the 19 recommendations from the 4th SCAR Foresight.
5. Block 5: Questions that investigate which obstacles the respondents encountered while working with the 4th Foresight.
6. Block 6: Questions asking the respondents about their suggestions for improvement of dissemination and implementation.
7. Block 7: Questions about the respondents' general experience from working with Foresights (to see a full transcription of the survey go to Appendix A).

The focal point of the evaluation is the recommendations of the 4th Foresight treated in Block 4. The 19 recommendations[2] are made from the following five general principles, eight research themes, and six organisational principles.

The five principles are:

1) Food first

2) Sustainable yields

3) Cascading approach

4) Circularity

5) Diversity

[1] https://www.qualtrics.com
[2] Online version of the 4th Foresight available here.

The eight research themes are:

1) New production paradigms for primary production based on ecological intensification

2) Emerging enabling technologies: the digital revolution

3) Resilience for a sustainable bioeconomy

4) The new energy landscape

5) Business and policy models for the bioeconomy

6) Socio-cultural dimensions of the bioeconomy

7) Governance and the political economy of the bioeconomy

8) Foresight for the biosphere

The six organisational principles are:

1) Challenge-oriented

2) Trans-disciplinary

3) Socially distributed

4) Reflexive

5) New rewarding and assessment systems

6) Competencies and capacities

The survey was sent to all SCAR delegates and substitutes from the 37 countries which are members of SCAR, to members of the SCAR Steering Group, as well as officers in 15 different Directorate-Generals (DGs)[3] in the European Commission. Data was collected between January 17 and February 7, 2018. The total number of potential respondents contacted was more than a 100. The total number of responses recorded was 53, with 40 being regarded as qualified as 13 responses were excluded due to too few answers (2 or less). Data contains responses from 16 different countries[4] with respondents mainly working in ministries of education and research, agriculture, food, forestry, environment, and economic affairs and mainly being head of their division or field of work. Seven responses came from DGs. The data suffers from a lack of responses from particularly some of the more recent Member States of the EU. The

[3] AGRI, CLIMA, DEVCO, EAC, EMPL, ENER, ENV, GROW, JRC, MARE, REGIO, RTD, SANTE, SG, and TRADE

[4] Belgium, Bulgaria, Czech Republic, Denmark, Estonia, Finland, France, Germany, Ireland, Italy, Luxembourg, Norway, Portugal, Spain, Sweden, Switzerland.

respondents' place of employment, main area of work, and familiarity with the 4th Foresight are shown in Table 1, 2, and 3 respectively.

Table 1. Place of employment

Q3: Are you employed in…	Number	Percent
A national ministry	18	45
A Directorate-General (DG) in the European Commission	7	17,5
A research performing organisation or university	10	25
A research funding agency	3	7,5
Other	2	5
Respondents	40	100

Table 2. Main area of work

Q9: What is your main area of work?	Number	Percent
Development of research strategies and programmes	12	31
Development of policy strategies and initiatives	4	10
Both	16	41
Other	7	18
Respondents	39	100

Note: one missing answer.

Table 3. Familiarity with the 4th Foresight

Q10: To which extent are you familiar with the 4th SCAR Foresight?	Number	Percent
Not familiar at all	4	10
Familiar to a small extent	4	10
Familiar to some extent	14	36
Familiar to a great extent	17	44
Respondents	39	100

Note: one missing answer.

Quantitative methods

Data used in the analysis is based on 40 responses. Descriptive statistics and qualitative text analysis are the methods used for the analyses. Questions present either multiple response options or a Likert scale (Agresti & Finlay, 2009) with five response options scaled from 0-4 indicating different extents of implementation where (0) corresponds to no implementation at all (1) to no implementation, but planning to, (2) to implementation to a small extent, (3) to implementation to some extent, and (4) to implementation to a great extent. A mean implementation score is calculated based on the respondents' numerical replies.

The quantitative analysis entails estimation of different mean implementation scores. One estimate is based on the answers to a single question (Q19) and is referred to as "Overall Implementation". A second estimate is based on the answers to the questions related to the 19 recommendations and called "Overall Implementation Index". Three sub-indexes namely the "Principles Index", "Research Themes Index", and "Organisational Principles Index" are estimated for evaluation of answers to questions related to principles, research themes, and organisational principles, respectively. In total, 60 questions are relevant for the construction of the "Overall Implementation Index", but 12 questions are excluded due to too low response rate[5]. The "Overall Implementation Index" is thus estimated based on answers to 48 questions. Other questions used for index estimation that contain fewer missing answers are included by ascribing the mean score from the respondents who answered the particular question. The "Principle Index", "Research Themes Index", and "Organisational Principles Index" are based on 15, 16, and 17 of the formerly mentioned 48 questions, respectively. Each index gives the mean of the results across the questions to which it refers where the results of each of the questions are ascribed the same weight. Indexes produce a simple mean score and are rescaled to vary from 0-100 so the interpretation can be understood as a percentage. 100 would indicate complete implementation and 0 no implementation at all.

The survey resulted in 40 qualified responses which are analysed using descriptive statistics. No statistics analyses were performed due to the limited number of responses.

Qualitative methods

The qualitative part of the analysis is based on comments added by the respondents. This data is analysed through qualitative data coding, first an open and then a closed coding round (Miles & Huberman, 1994; Bryman, 2008). The analysis begins with an open coding process identifying and listing all key words and sentences from the comments. Based on this list three different categories of answers are identified: 1)

[5] These 12 were questions concerned respondents in organisations working with both policy and research, where no respondents were recorded and is thus not due to respondents skipping questions, but the technical setup of the questionnaire.

actors to be included in the 5th Foresight, 2) themes to be included and 3) actions to be pursued. The full material with all comments was then examined again guided by these three categories. The result is a short and precise presentation of the recommendations for the 5th SCAR Foresight.

Analysis

All answers to the survey are reviewed and tendencies and trends in the data material are analysed. The indexes created for the implementation both overall and for the different recommendations are summarized and mean scores and standard deviations are listed. The analysis further summarizes the mean implementation scores for different fields of work, different influential factors, and different domains in dealing with the implementation. Mean scores are followed by their standard deviation in order to demonstrate the deviations from the mean score in the group of respondents (Agresti & Finlay, 2009). The qualitative data is analysed and focal points are reported.

Results

Dissemination

Respondents were asked how they were introduced to the 4th Foresight and were given multiple response options. Results are presented in Table 4.

Table 4. Introduction channels to the 4th SCAR Foresight

Q13: How were you or your organisation introduced to the 4th Foresight?	Number	Percent
Stakeholder conference	16	53
International authority staff	5	17
National authority staff	3	10
Regional authority staff	0	0
Colleague	6	20
Research institution staff	3	10
Stakeholder organisation staff	1	3
Other	8	27
Respondents	30	

Note: respondents could choose more than one response option.

More than half of the respondents were introduced to the 4th Foresight by attending the stakeholder conference in Brussels organised by the EC in close collaboration with SCAR on October 8, 2015. The "Other" option is the second most frequent option reported, which indicates that the categories listed do not completely cover how the 4th Foresight was spread. The added text comments tell that respondents were mostly introduced to the 4th Foresight by a SCAR representative, at a SCAR meeting, or in SCAR working groups. A few respondents also referred to other organisations namely the European Commission and national organisations such as INIA[6].

Table 5 shows whether respondents have forwarded the 4th Foresight. Suggested recipients are listed in Table 6.

Table 5. Forwarding the 4th Foresight

Q14: Have you forwarded the 4th Foresight to anyone?	**Number**	**Percent**
Yes	23	77
No	7	23
Respondents	30	100

Table 6. Recipients of the 4th Foresight

Q15: To which of the following have you introduced the 4th Foresight?	**Number**	**Percent**
Colleagues within my organisation	20	87
Colleagues in other organisation	12	52
Staff from a research institution	10	44
Staff from a national authority	8	35
Staff from a stakeholder organisation	4	17
Staff from a regional authority	3	13
Other	3	13
Staff from an international authority	2	9
Respondents	23	

Note: respondents could choose more than one response option.

[6] National Institute for Agricultural Technology and Investigation in Spain

Most respondents have forwarded the 4th Foresight to their own colleagues. More than half forwarded the 4th Foresight to someone outside of their own organisation. In the comments, respondents specify that they have forwarded the 4th Foresight to other ministries and regional authorities, regional research network and autonomous regions in Spain. Interestingly, the 4th Foresight has also been forwarded to national ministries of agricultural technology and investigation (INIAs) in Latin-America. Respondents in research and stakeholder organisations mention universities, research institutions, national research councils, technological platforms (ETPs), farmers unions, and national boards on research. Thus the 4th Foresight has been disseminated widely to more stakeholders by the respondents in the survey.

The infographic provided at the end of the printed version of the 4th Foresight is a tool for visualising the content of the 4th Foresight. The overall usefulness of the infographic is assessed as good, based on the results in Table 7.

Table 7. Assessment of the infographic

Q16: To which extent was the infographic (p.131) valuable for the dissemination of the 4th Foresight?	**Number**	**Percent**
Not at all	2	9
To a small extent	6	26
To some extent	8	35
To a great extent	7	30
Respondents	23	100

Comments regarding the dissemination pointed out a need for translation of important and very instructive parts of the Foresight to more European languages. The online accessibility of the instructive parts of the Foresight e.g. the summary and the infographic should be improved, e.g. the web-address given in the 4th Foresight did not lead to the infographic. Another comment points out that besides the political level, other actors should be considered as target group of the dissemination e.g. the production sector.

The results show that SCAR delegates are important for the dissemination, and that more could be done to make the 4th Foresight more accessible.

Implementation

Different measures are used to assess the implementation as it is a composed measure based on multiple actions and initiatives. The overall state of implementation is analysed to give an impression of the state of implementation across all respondents. Furthermore, the analysis is subdivided into a section focusing on a) the different respondent types: research units, policy units, and units working with both and "other" as their main field. For each group their mean score on the overall implementation index is reported. The second focus is on b) the different elements of the recommendations: the principles, research themes, and organisational principles. They are investigated by analysing mean scores for their respective indexes. The comparison between the different measures gives an indication of the robustness of the results.

Overall implementation degree

The overall implementation is measured first through answers to a single question (Table 8) and secondly through the Overall Implementation Index (Table 9). The measures correspond well with one another and show an implementation above two thirds, which seems fair considering the short period since the launching of the 4th Foresight. However, results are based on only 40 respondents compared to more than 100 potential respondents. Furthermore, conclusions are tentative due to a limited number and a biased composition of nations responding.

Table 8. Overall Implementation

Q19: To what extent has your organisation implemented the 4th Foresight or aspects of it?	**Number**	**Percent**
Not at all	3	11
No, but we are planning to	0	0
To a small extent	6	21
To some extent	15	54
To a great extent	4	14
Respondents	28	100

Table 9. Overall Implementation and Overall Implementation Index

Overall implementation scores	Mean implementation score
Overall Implementation (Q19)	65 (23)
Respondents	28
Overall Implementation Index	62 (20)
Respondents	40

Note: standard deviation in brackets.

Implementation in research and policy fields

The overall implementation degree for the main fields of work is shown in Table 10. It shows that the first three groups have a mean implementation score close to the overall mean score, while the last group scores higher.

Table 10. Implementation by main field of work

Implementation based on main field of work	Number	Percent	Mean implementation score
Research	12	31	62 (8)
Policy	4	10	62 (0)
Both	16	41	58 (28)
Other	7	18	71 (16)
Respondents	39	100	

Note: standard deviations in brackets.

Table 11 indicates that in organisations that implemented the 4th Foresight in both research and policy domains have come further with the implementation than in organisations that implemented in only one of the fields, especially if it is research. An explanation could be that synergies can be obtained when working with both research and policy programmes.

Table 11. Implementation based on domains

Q20: In which of the following has your organisation implemented the 4th Foresight?	Number	Percent	Mean implementation score
In research strategies and/or research programmes	6	24	45 (24)
In policy strategies and/ or initiatives	3	12	63 (3)
In both	16	64	69 (20)
Other	0	0	-
Respondents	25	100	

Note: standard deviations in brackets.

Implementation of recommendations

The degree of implementation for each component of the recommendations – the principles, research themes, and organisational principles is given in Table 12.

Table 12. Implementation of recommendations

Implementation of recommendations	Mean implementation score
The five principles (principle index)	65 (20)
The eight research themes (themes index)	59 (22)
The six organisational principles (organisational principles index)	57 (20)
Respondents	40

Note: standard deviations in brackets.

The mean score of 62 on the Overall Implementation Index, seems like a reasonable overall implementation level, considering the recent launching of the 4th Foresight. The mean scores seem consistent across the different indexes (Table 12). Principles are slightly better implemented than the research themes and the organisational principles. An explanation could be that principles are more flexible and thus easier to put into practice.

In the comments respondents express that the degree of implementation reflected in their responses is not only due to the 4th Foresight. Working with and implementing bioeconomy strategies, policies and research is an ongoing process and in some countries it had begun before the launching of the 4th Foresight.

Influential factors

Economic resources, competencies, leadership, and prior initiatives within the bioeconomy field are expected to influence the implementation process. Respondents were asked to what extent their organisation had addressed each of the influential factors. A mean implementation scores are calculated for different extents of economic resources, competences, leadership, and prior initiatives respectively. Results are shown in Table 13, 14, 15, and 16.

Table 13. Implementation mean score by economic resources.

Implementation based on allocation of economic resources	Number	Percent	Mean implementation score
Not at all	9	32	60 (29)
We are planning to	4	14	58 (4)
To a small extent	10	36	60 (28)
To some extent	4	14	71 (18)
To a great extent	1*	4	79 (-)
Respondents	28	100	

Note: *only 1 observation; standard deviations in brackets.

Table 14. Implementation mean score by competence.

Implementation based on added competences	Number	Percent	Mean score
Not at all	17	61	59 (27)
We are planning to	3	11	51 (13)
To a small extent	3	11	60 (6)
To some extent	4	13	78 (18)
To a great extent	1*	4	79 (-)
Respondents	28	100	

Note: *only 1 observation; standard deviations in brackets.

Table 15. Implementation mean score by leadership.

Implementation based on communication by the leadership	Number	Percent	Mean score
Not at all	10	35	49 (27)
We are planning to	3	10	51 (12)
To a small extent	7	24	75 (22)
To some extent	6	21	62 (14)
To a great extent	3	10	84 (4)
Respondents	29	100	

Note: standard deviations in brackets.

Table 16. Implementation mean score by prior initiatives.

Implementation based on experience from prior bioeconomy initiatives	Number	Percent	Mean score
Not at all	1*	3	36 (-)
We are planning to	3	10	66 (32)
To a small extent	7	24	49 (33)
To some extent	10	35	66 (16)
To a great extent	8	28	70 (16)
Respondents	29	100	

Note: *only 1 observation; standard deviations in brackets.

Table 13 shows that most respondents had no or only few resources allocated for implementation. In Table 14 it appears that more than 60% of organisations did not add competencies to support the implementation. The results in Table 13 and 14 may indicate a weak positive association between economic resources and implementation as well as between competence and implementation, but caution to such conclusions should be taken due to the low number of respondents in the categories “to some extent” and “a great extent”. Table 15 shows that many respondents (36%) did not at all experience that their leadership communicated the priority of implementation of the 4th Foresight, which is expected to be essential for the motivation of employees. Table 16 shows that most respondents (97%) had been working with bioeconomy initiatives prior to the launching of the 4th Foresight.

Respondents who had been working with bioeconomy initiatives prior to the launch of the 4th foresight were asked to what extent the 4th Foresight had been supporting their own prior initiatives. The response options, distribution of answers, and mean implementation scores are presented in Table 17. The results may indicate a weak positive association between the perception of the 4th Foresight as supportive, but caution about this interpretation should be taken due to the very low number of respondents in the category "to a great extent".

Table 17. Implementation mean score by support to prior initiatives.

Implementation based on whether the 4th Foresight was supportive of prior bioeconomy initiatives	Number	Percent	Mean implementation score
Not at all	2	7	34 (40)
To a small extent	5	18	66 (19)
To some extent	19	68	63 (22)
To a great extent	2	7	83 (6)
Respondents	28	100	

Note: standard deviations in brackets.

Obstacles

Eight different obstacles to the implementation process were presented to the respondents (Table 18). The respondents were asked to choose all the obstacles that they had experienced from their work with the implementation of the 4th Foresight. The obstacles most frequently chosen are economic obstacles, a busy work protocol, that recommendations are hard to put into practice, and lack of support from superiors, which stresses that economic resources, and the communication of the leadership are influential factors.

Table 18. Obstacles to implementation

Which obstacles, if any, have you encountered when your organisation implemented the 4th Foresight?	Percent
Lack of financial means (funding for initiatives, staff etc.)	67%
Implementation is hindered by other pending tasks	54%
Recommendation are hard to put into practice	38%
Lack of support from political and/or managerial superior	38%
Recommendations conflict with current national policies	21 %
Linguistic barriers	17%
Recommendations are not relevant	0 %
Recommendations conflict with current European policies	0 %
Respondents	24

Note: respondents could choose more than one response option.

Lack of financial means is considered the largest obstacle, but a busy work schedule is also a frequent challenge. Directly related to the 4th Foresight about one third of respondents found that recommendations are hard to apply in practice, and about one fifth have experienced conflicts with current national policies. Linguistic barriers were a challenge for approximately 20%.

In some comments, concern is expressed about the policy makers' information level, their acceptance of the bioeconomy concept and their willingness to take action. Other comments indicate that initiatives are carried out independently from the 4th Foresight. One comment describes how a main obstacle is the timing of initiatives at the Member State level and the EU level where more synergy could be obtained by being more explicit about how Member States can build effective RDP[7] and EMFF[8] while also taking into account the Foresight recommendations.

[7] Rural Development Programme
[8] European Maritime and Fisheries Fund

Ideas for improvement

Respondents were asked to rank four different suggestions for improvement of the dissemination and implementation of the 4th Foresight and future foresights. One indicates most important and 4 indicates least important. Results are presented in Table 19.

Table 19. Percent of respondents rating each option by importance

What could be done to improve the dissemination and/or implementation of the 4th Foresight as well as future foresights?	**Importance rating**			
	1	2	3	4
Improved possibilities to contribute with inputs in the early foresight process.	38%	10%	29%	24%
Presentation of best practice examples of dissemination and/or implementation.	33%	43%	24%	0%
Translation into additional national languages (EU and associated countries).	19%	0%	5%	76%
Workshops on methods and processes needed for improved implementation.	10%	48%	43%	0%
Respondents	21	21	21	21

Contribution to the early foresight process is considered most important by 38% of the respondents. However, considering both the first and second rating columns 76% agreed that presentation of best practice examples of dissemination and/or implementation is important. Workshops on methods and processes for improving implementation are considered less important as are translations, this may be reflect the countries responding.

Comments on obstacles are all related to communication. One comment focuses on translation into more languages and better communication of content of the 4th Foresight. Respondents specifically ask for means to improve the communication such as different medias (video or good example), mini-conferences for Member States' ministerial levels, or the engagement of professional communicators or marketing specialists in the process of dissemination and implementation.

Working with foresights in general

Respondents were asked to evaluate use of foresights as a source of inspiration in general. They were asked to think of foresights from the EU as well as other sources. Results are shown in Figure 1. The specific sources are presented in Table 20.

Figure 1. Inspiration from foresights in general.

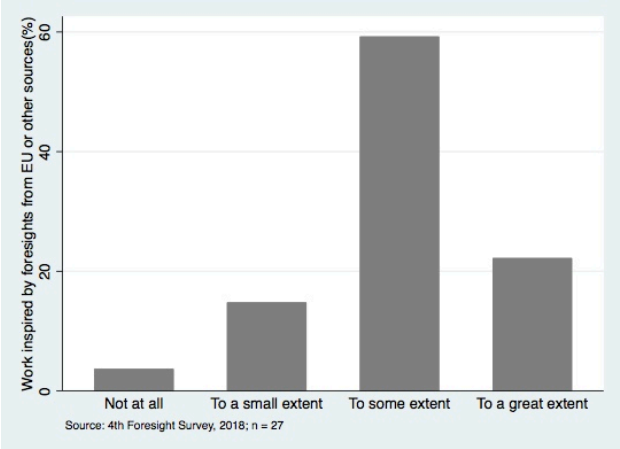


Table 20. Sources for inspiration

By which other sources are you inspired?	Number	Percent
International foresights	18	78%
National foresights	15	65%
Other sources	5	22%
Respondents	23	

Note: respondents could choose more than one response option.

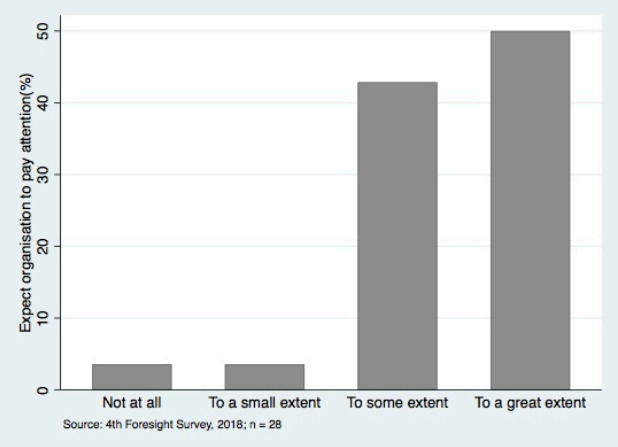
The specific international foresight sources applied are OECD and OECD Horizon Scanning, FAO, UN, EU and EU outlook, INIAs of Ibero-American, FONTAGRO[9], and IAASTD. In the category "other sources" respondents mentioned: sector specific foresight, national policies and challenges, financial and insurance institutions, think-tanks, modelling exercises, and ICES[10].

[9] FONTAGRO (https://www.fontagro.org)
[10] ICES (The International Council for Exploration of the Sea, http://www.ices.dk)

The 5th SCAR Foresight

The 4th SCAR Foresight Exercise will be followed by a 5th SCAR Foresight Exercise. The interest in the launching of the 5th SCAR Foresight is shown in Figure 2. It points out that large attention is expected to be paid to the 5th SCAR Foresight.

Figure 2. Pay attention to 5th SCAR Foresight.



Respondents were given the option to contribute with their ideas for the coming 5th SCAR Foresight. Respondents gave inputs to which actors to be included, themes to be working with, and actions to be pursued in the 5th SCAR Foresight. Political decision makers, primary producers, agri-production sectors, the European society, and civil society are mentioned as actors to be included. The themes and actions suggested are summarized in the following six headlines based on the qualitative analysis described in the qualitative methods section above.

1) Socio-economic aspects of the bioeconomy including rehabilitation of rural areas.
2) Primary production and market aspects including the income of farmers as well as sustainable and safe food production and marketization.
3) Technology including emerging technologies in agriculture.
4) Society and societal acceptance – many comments expressed a wish for a broader knowledge of agriculture in society and broader acceptance and support to a sustainable food production sector – one suggestion was agri-education to spread knowledge among citizens.
5) Obstacles curbing the sustainable development including lock-in effects from existing markets, technologies and organisational models.
6) Sustainable Development Goals including environmental effects of the bioeconomy and climate change.

Conclusion and recommendations

The analysis of the 4th Foresight forms the basis of the overall evaluation of the dissemination and implementation of the 4th Foresight. The results show that the 4th Foresight seems to be fairly well disseminated to and by the recipients responding to the survey. Furthermore, the overall mean implementation score around 60, measured on a scale from 0-100, indicates a reasonable rate of implementation taking into account the recent launching of the 4th Foresight. This score is robust across different measures. However, these conclusions are limited by the number and biased composition of countries responding to the survey.

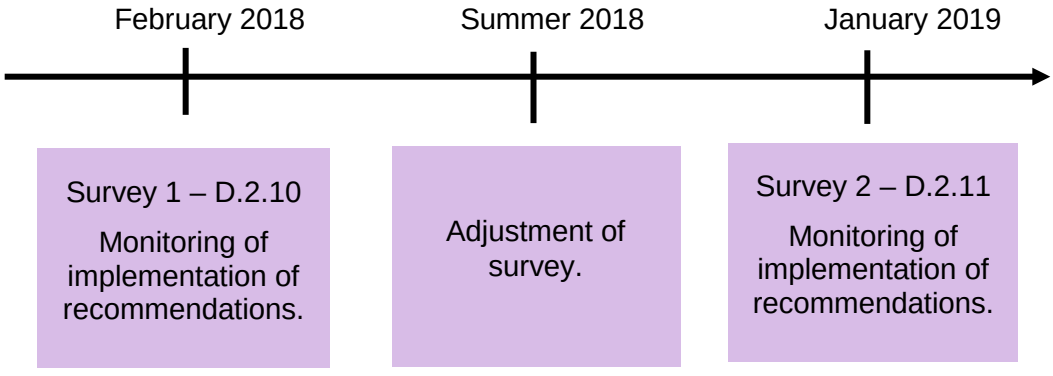
The results of the analysis further indicate that allocation of economic resources as well as additional competencies in the organisations may influence the implementation. For a better implementation of foresights, attention should be paid to possible barriers. Obstacles reported when implementing the 4th Foresight particularly concern lack of financial means, a busy work schedule, that recommendations are hard to put into practice, and lack of support from superiors.

Respondents recommended that a better implementation may be obtained by sharing best practices, as well as methods and tools for implementation. For future foresights, respondents point at the importance of having the possibility to contribute with inputs early in the foresight process. Apart from recommendations for the implementation process respondents also contributed concrete recommendations for the thematic focus of the coming 5th SCAR Foresight as outlined on page 21.

Monitoring system

The 4th Foresight survey is designed in such a manner that most questions are answered easily by tick-off. It gives the questions a standardised character apt for direct reuse. This analysis will be followed up by a revision of the survey that aims at a more standardised questionnaire, which is expected to increase the number of respondents. This process is presented in Model 3.

Model 3: Monitoring process for the 4th SCAR foresight.



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