

**D2.11**  
**Report no. 2 to SCAR SG**  
**Monitoring of  
implementation of  
recommendations in  
current SCAR Foresight**

**Task 2.5 Support to the  
Implementation of the 4<sup>th</sup>  
Foresight and its  
recommendations**

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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 4<sup>th</sup> SCAR Foresight Exercise “*Sustainable Agriculture, Forestry, and Fisheries in the Bioeconomy – A Challenge for Europe*” (hereinafter: “4<sup>th</sup> Foresight”) was launched in 2015. This report relates to Task 2.5 in the CASA project and is CASA deliverable D2.11. The report describes an evaluation of the dissemination and overall state of implementation of the 4<sup>th</sup> Foresight as well as how the implementation of the current 5<sup>th</sup> SCAR Foresight may be improved. The evaluation reported in D2.11 is a follow-up on a similar evaluation conducted in the winter 2018 and reported in March 2018 as CASA D2.10 and also contains a comparison of the two studies.

Overall, the results show that the 4<sup>th</sup> Foresight has been disseminated and implemented well. The results indicate a slight improvement in the dissemination and implementation in the time from the 1<sup>st</sup> to the 2<sup>nd</sup> Survey. The 4<sup>th</sup> Foresight has achieved programme impact in both research programmes and policy initiatives. Obstacles experienced are lack of financial means and e.g. that recommendations are difficult to put into practice. 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. Finally, great expectations have been expressed for the launch of a 5<sup>th</sup> Foresight.



## 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, 4<sup>th</sup> 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 4<sup>th</sup> Foresight has been planned in close dialogue with the SCAR Foresight Group and the design of the questionnaire for the evaluation has been elaborated based on the following recommendations from the SCAR Steering Group:

- 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 4<sup>th</sup> Foresight Exercise recommendations in research programmes, policies and regulations.
- The target groups should be the Ministries and funders in Member States and associated countries and Directorate-Generals in the EU Commission.

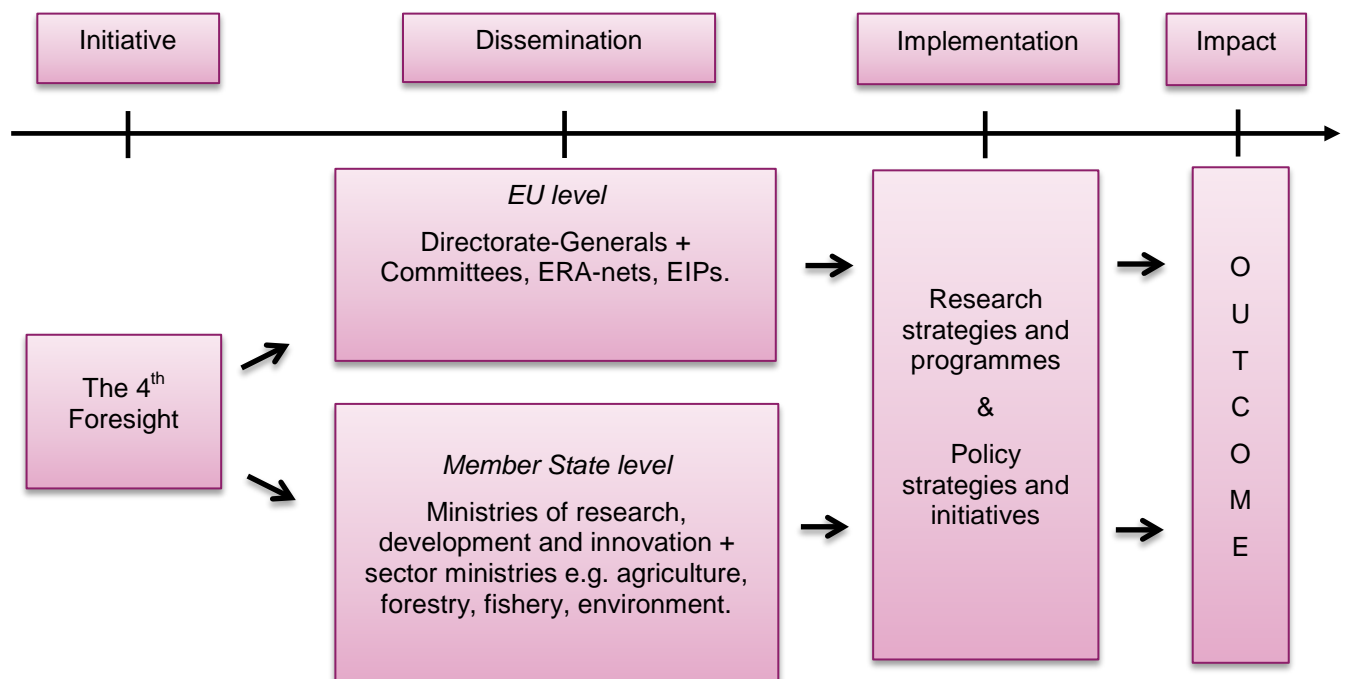
### Guiding questions

The following four overall questions were identified for guidance:

- How has the 4<sup>th</sup> 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 5<sup>th</sup> SCAR Foresight?

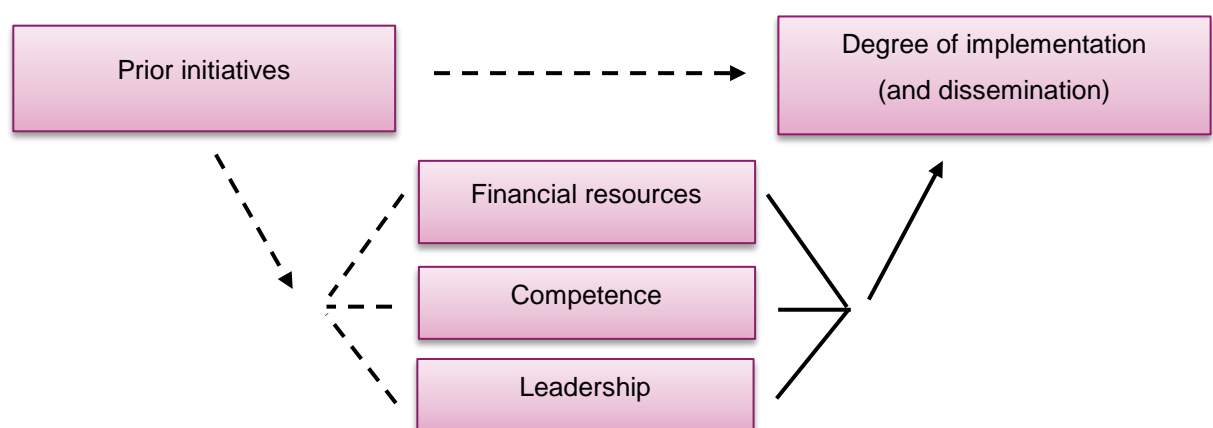
A successful foresight is defined as a foresight that achieves *programme impact*, meaning that it affects the content of policy (Carlof & Smith, 2010:36). This evaluation thus investigates to which extent the core outcome of the 4<sup>th</sup> Foresight, namely the 19 recommendations, has achieved programme 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 4<sup>th</sup> 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 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 developed, comprising 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<sup>1</sup> with the following structure using 7 blocks:

1. Block 1: Introductory questions covering the respondents place of employment, main area of work, familiarity with the 4<sup>th</sup> SCAR Foresight and whether the respondents' organisation has answered the 1<sup>st</sup> survey.
2. Block 2: Questions covering the handling of the Foresight; how and by whom the respondents were introduced to the 4<sup>th</sup> SCAR Foresight, and whether they have forwarded it to new recipients.
3. Block 3: Questions concerning implementation, including the extent to which the respondents have implemented the 4<sup>th</sup> SCAR Foresight or aspects of it, and 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 4<sup>th</sup> SCAR Foresight.
5. Block 5: Questions regarding the nature and degree of obstacles encountered by respondents while working with the 4<sup>th</sup> Foresight.
6. Block 6: Questions inviting respondents to suggest improvements for dissemination and implementation.
7. Block 7: Questions about the respondents' general experience of working with Foresights.

The focal point of the evaluation is the recommendations of the 4<sup>th</sup> Foresight treated in Block 4. The 19 recommendations<sup>2</sup> are derived 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

<sup>1</sup> <https://www.qualtrics.com>

<sup>2</sup> Online version of the 4<sup>th</sup> 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 SCAR member countries, to members of the SCAR Steering Group, as well as to officers in 15 different Directorate-Generals (DGs)<sup>3</sup> in the European Commission. Data was collected between March 15 and April 30, 2019. The total number of potential respondents contacted was more than 100. The total number of responses recorded was 18. However, due to only few answers (two or less) three recorded responses were excluded from the analysis, resulting in 15 responses to the 2<sup>nd</sup> survey. The number of qualified responses to the 1<sup>st</sup> survey was 40. A smaller response rate may result in less representative answers, which needs to be considered when evaluating the results of the 2<sup>nd</sup> Survey as well as the results of the comparison of the two surveys. Figure 1 shows that a majority of respondents, or their organisations, to the 2<sup>nd</sup> Survey also responded to the 1<sup>st</sup> Survey.

The data for the 2<sup>nd</sup> Survey contains responses from nine different countries<sup>4</sup> with a fairly reasonable geographical distribution of respondents. The countries responding to the 1<sup>st</sup> Survey were Belgium, Bulgaria, Czech Republic, Denmark, Estonia, Finland, France, Germany, Ireland, Italy, Luxembourg, Norway, Portugal, Spain, Sweden, Switzerland. Thus, five countries responded to both surveys, while eleven countries only responded to the 1<sup>st</sup> Survey and four only to the 2<sup>nd</sup> Survey. The difference

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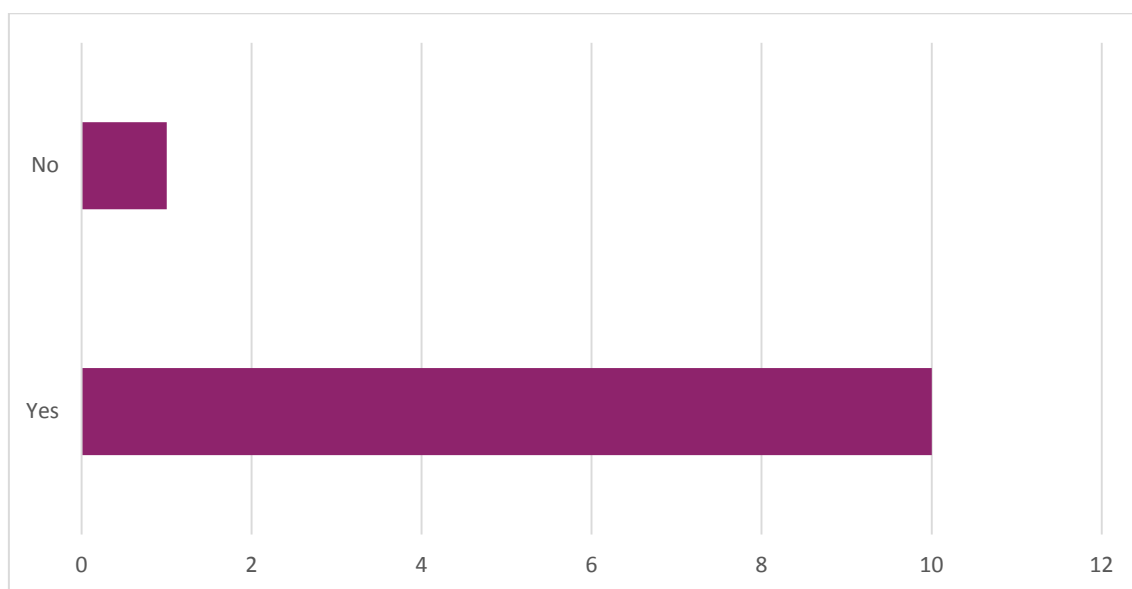
<sup>3</sup> AGRI, CLIMA, DEVCO, EAC, EMPL, ENER, ENV, GROW, JRC, MARE, REGIO, RTD, SANTE, SG, and TRADE

<sup>4</sup> Italy, Latvia, Lithuania, Netherlands, Norway, Spain, Sweden, Switzerland, and Turkey.

between the countries responding makes the comparison between the results of the 1<sup>st</sup> and 2<sup>nd</sup> Survey more challenging. Responses were obtained from four DGs.

The distribution of respondents' place of employment, main area of work, and familiarity with the 4<sup>th</sup> Foresight are shown for both the 1<sup>st</sup> and 2<sup>nd</sup> Survey in Table 1, 2, and 3 respectively. The distribution of respondents' place of employment and area of work correspond fairly well across the two surveys. This provides some basis for evaluation of the development and progress of the dissemination and implementation of the 4<sup>th</sup> Foresight between the 1<sup>st</sup> and 2<sup>nd</sup> survey. The familiarity with the 4<sup>th</sup> Foresight is high and appears to be at comparable levels across the 1<sup>st</sup> and the 2<sup>nd</sup> Survey.

Figure 1: Answers to the 1<sup>st</sup> Survey



Note: four missing answers.

## Methods

Data used in the analysis is based on 15 responses. The methods applied in the analysis of the data are descriptive statistics. The statistics are based on responses to questions presented as either multiple choice or as a five or six-point Likert Scale (Agresti & Finlay, 2009). The Likert Scale response options cover different extents of implementation as follows: “no implementation at all”, “no implementation, but planning to”, “implementation to a small extent”, “implementation to some extent”, “implementation to a great extent”. The six-point Likert Scale includes the option “don’t know”. The results are presented in tables and figures. The tables show responses both in absolute numbers and as percentages. Where relevant, results from the 1<sup>st</sup> and 2<sup>nd</sup> Survey are shown in the same table or figure for comparison. All open-ended answers to specific issues in the form of text are included.



Table 1. Place of employment

Are you employed in...	1 <sup>st</sup> Survey		2 <sup>nd</sup> Survey	
	Number	Percent	Number	Percent
A national ministry	18	45	7	46,5
A Directorate-General (DG) in the European Commission	7	17,5	4	26,5
A research performing organisation or university	10	25	2	13,5
A research funding agency	3	7,5	2	13,5
Other	2	5	0	0
Respondents	40	100	15	100

Table 2. Main area of work

What is your main area of work?	1 <sup>st</sup> Survey		2 <sup>nd</sup> Survey	
	Number	Percent	Number	Percent
Development of research strategies and programmes	12	31	4	27
Development of policy strategies and initiatives	4	10	1	6
Both	16	41	7	47
Other	7	18	3	20
Respondents	39	100	15	100

Table 3. Familiarity with the 4<sup>th</sup> Foresight

To which extent are you familiar with the 4 <sup>th</sup> SCAR Foresight?	1 <sup>st</sup> Survey		2 <sup>nd</sup> Survey	
	Number	Percent	Number	Percent
Not familiar at all	4	10	1	7
Familiar to a small extent	4	10	1	7
Familiar to some extent	14	36	7	46
Familiar to a great extent	17	44	6	40
Respondents	39	100	15	100

## Analysis

All responses to the survey are reviewed and trends in the data are described. However, due to the small number of respondents particularly in the second survey, we have not assessed whether differences over time are statistically significant. The degree of overall implementation is reported firstly for all respondents in general, secondly for respondents based on their field of work, and thirdly on the domains in which they have implemented the 4<sup>th</sup> Foresight. The analysis further summarizes the degree of implementation of the different 19 recommendations and the degree of support for implementation by the different influential factors. The results of the two surveys are compared when relevant.

## Results

### Dissemination

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

Table 4. Introduction channels to the 4<sup>th</sup> SCAR Foresight

How were you or your organisation introduced to the 4 <sup>th</sup> Foresight?	1 <sup>st</sup> Survey		2 <sup>nd</sup> Survey	
	Number	Percent	Number	Percent
Stakeholder conference	16	53	5	38
International authority staff	5	17	2	15
National authority staff	3	10	0	0
Regional authority staff	0	0	0	0
Colleague	6	20	5	38
Research institution staff	3	10	1	8
Stakeholder organisation staff	1	3	2	15
Other	8	27	6	46
Respondents	30		13	

Note: respondents could choose more than one response option.

In both the first and second survey, the most frequent sources of introduction to the 4<sup>th</sup> Foresight were by a colleague and also the stakeholder conference in Brussels organised by the EC in close collaboration with SCAR on October 8, 2015. Although still very important, fewer respondents listed the stakeholder conference as important in the 2<sup>nd</sup> survey, which may be ascribed to the longer time span since the event. On the

other hand, more respondents in the 2<sup>nd</sup> survey indicated that personal communication, i.e. with colleagues, is important.

The “Other” option is the most frequent option reported in both surveys, which indicates that the categories listed do not completely cover how the 4<sup>th</sup> Foresight was disseminated. From the comments, it appears that respondents were mostly introduced to the 4<sup>th</sup> Foresight either through SCAR meetings or on the SCAR website.

Table 5 shows whether respondents have forwarded the 4<sup>th</sup> Foresight to other people. The comparison between the 1<sup>st</sup> and 2<sup>nd</sup> survey indicates that further dissemination has taken place during the period between the two surveys as can be expected since more time has elapsed since the launch of the 4<sup>th</sup> Foresight.

Table 5. Forwarding the 4<sup>th</sup> Foresight

Have you forwarded the 4 <sup>th</sup> Foresight to anyone?	1 <sup>st</sup> Survey		2 <sup>nd</sup> Survey	
	Number	Percent	Number	Percent
Yes	23	77	13	93
No	7	23	1	7
Respondents	30	100	14	100

Table 6. Recipients of the 4<sup>th</sup> Foresight

To which of the following have you introduced the 4 <sup>th</sup> Foresight?	1 <sup>st</sup> Survey		2 <sup>nd</sup> Survey	
	Number	Percent	Number	Percent
Colleagues within my organisation	20	87	12	92
Colleagues in other organisation	12	52	-	-
Staff from a research institution	10	44	10	77
Staff from a national authority	8	35	4	31
Staff from a stakeholder organisation	4	17	3	23
Staff from a regional authority	3	13	2	15
Other	3	13	1	8
Staff from an international authority	2	9	0	0
Respondents	23		13	

Note: respondents could choose more than one response option. The option “Colleagues in other organisations” was not included in the 2nd Survey.

The distribution of recipients of the 4<sup>th</sup> Foresight is listed in Table 6. Most respondents have forwarded the 4<sup>th</sup> Foresight to colleagues within their own organisation followed by staff from a research institution. In the comments, respondents specify that they have forwarded the 4<sup>th</sup> Foresight primarily to national research councils, universities, regional authorities and ministries. One NGO is mentioned. The 4<sup>th</sup> Foresight was also

forwarded to the Joint Research Centre (JRC) and the University of Latvia. The 4<sup>th</sup> Foresight has, thus, been actively disseminated to multiple stakeholders by the respondents in the survey.

The infographic provided is a tool for visualising the content of the 4<sup>th</sup> Foresight. The infographic is generally assessed as valuable for the dissemination, based on the results in Table 7.

Table 7. Assessment of the infographic

To which extent was the infographic (p.131) valuable for the dissemination of the 4 <sup>th</sup> Foresight?	1 <sup>st</sup> Survey		2 <sup>nd</sup> Survey	
	Number	Percent	Number	Percent
Not at all	2	9	1	8
To a small extent	6	26	4	33,5
To some extent	8	35	3	25
To a great extent	7	30	4	33,5
Respondents	23	100	12	100

Comments regarding the dissemination in general include recommendations on additional dissemination activities like EU events and of propagating the 4<sup>th</sup> Foresight in EU common advisory bodies. One respondent suggests that elaboration of a PowerPoint presentation of the 4<sup>th</sup> Foresight will facilitate dissemination to colleagues.

Overall, the results show that SCAR delegates are important for the dissemination, but that additional efforts would make the 4<sup>th</sup> 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. For specific measures, the analysis is disaggregated along two different areas. The first focus is on the different respondent types: research units, policy units, and units working with both and “other” as their main field. For each group their degree of implementation is reported. The second focus is on the different elements of the recommendations: the principles, research themes, and organisational principles. For each type of recommendation the degree of implementation is reported.

## Overall implementation degree

The overall implementation is measured through answers to a single question. The responses are presented for both the 1<sup>st</sup> and 2<sup>nd</sup> Survey in Table 8 and Figure 2. The results indicate that the 4<sup>th</sup> Foresight has been implemented to a relatively high extent and at a similar or even improved level at the time of the 2<sup>nd</sup> Survey. However, the lower response rate of the 2<sup>nd</sup> Survey and the difference between countries responding in the two surveys should be taken into consideration when assessing the reliability of this conclusion.

Table 8. Overall Implementation

To what extent has your organisation implemented the 4 <sup>th</sup> Foresight or aspects of it?	1 <sup>st</sup> Survey		2 <sup>nd</sup> Survey	
	Number	Percent	Number	Percent
Not at all	3	11	0	0
No, but we are planning to	0	0	0	0
To a small extent	6	21	2	14
To some extent	15	54	6	43
To a great extent	4	14	3	21,5
Don't know	-	-	3	21,5
Respondents	28	100	14	100

Note: The option "Don't know" was not included in the 1<sup>st</sup> Survey.

## Implementation in research and policy fields

The overall degree of implementation for the main fields of work based on the 2<sup>nd</sup> Survey is shown in Figure 3. The results indicate that respondents working with development of research strategies and programmes and respondents working both with this and development of policy strategies and initiatives have achieved the highest degree of implementation. However, the number in all categories is small rendering overall conclusions difficult.

Figure 4 indicates that organisations that implemented the 4<sup>th</sup> Foresight in both research and policy domains have obtained the best implementation. Synergies may be obtained when working with both research and policy programmes

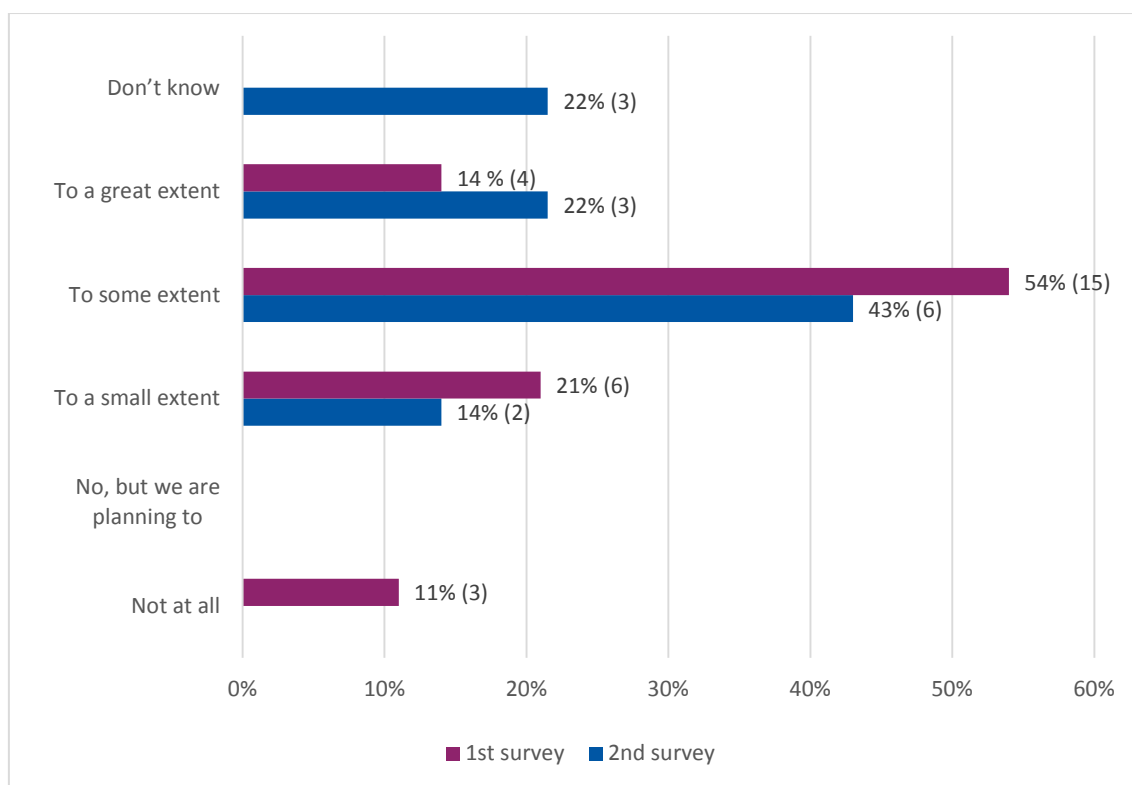
## Implementation of recommendations

The degree of implementation for each component of the recommendations – the principles, research themes, and organisational principles is given in Figure 5, 6, and 7.



Overall, the five principles have been well implemented, supporting the results of the 1<sup>st</sup> Survey where the mean implementation score for the five principles was 65. Among the organisations represented in this survey, the cascading approach has been implemented to the smallest degree with a recording of less than 50% when combining the two options “to a great extent” and “to some extent”.

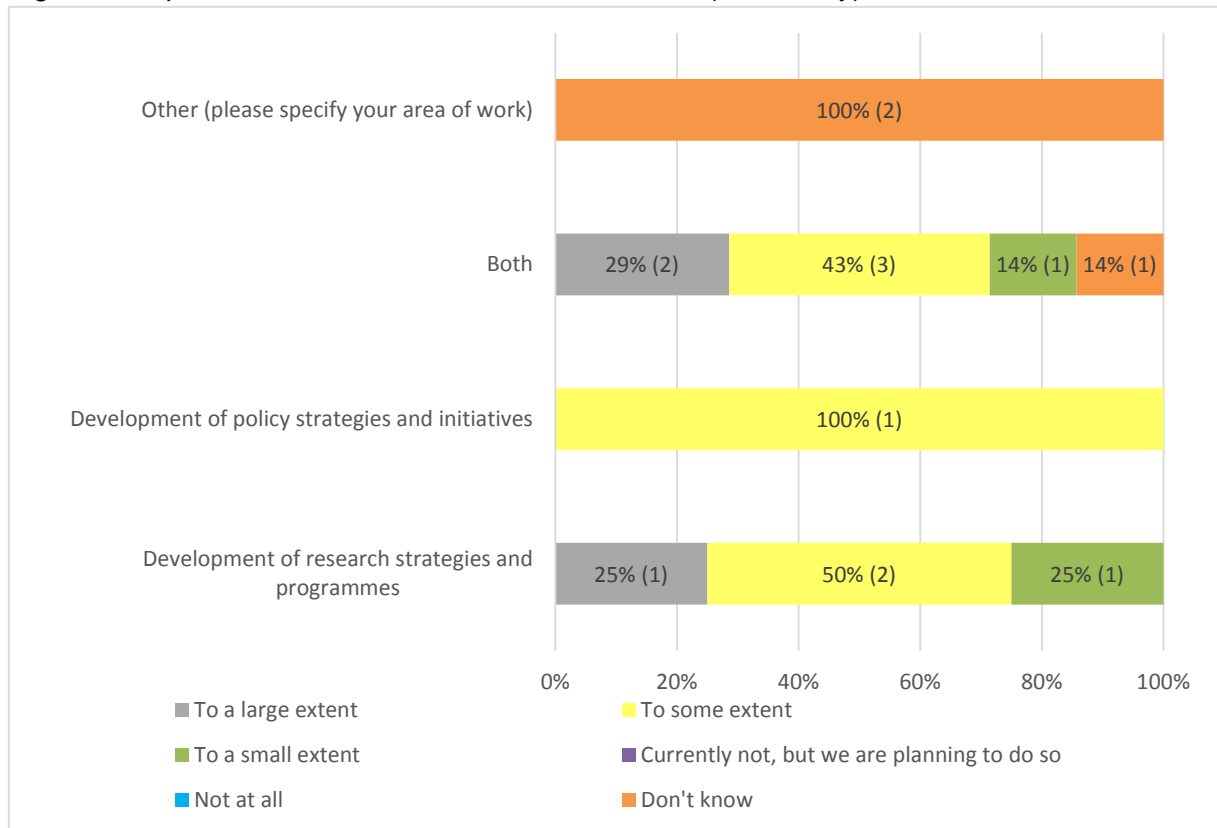
Figure 2: Overall implementation



Note: Pillar labels show percentage with number of responses in parenthesis. The option “Don’t know” was not included in the 1<sup>st</sup> Survey.

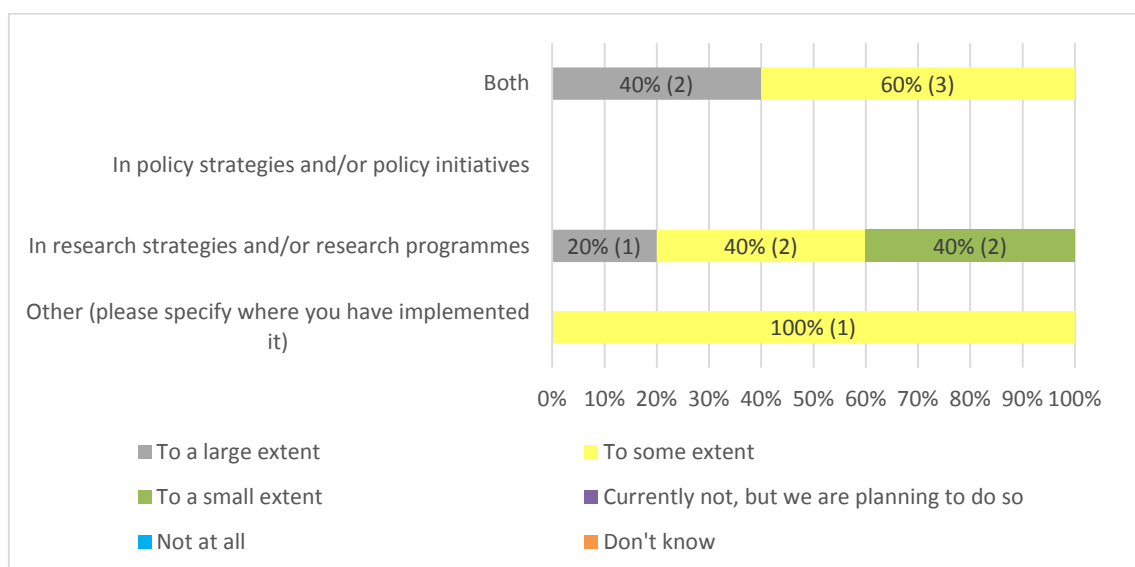
The degree of implementation varies for the eight different research themes. Five of the eight themes are implemented with a rate of more than 53% when taking into account the recordings “to a great extent” and “to some extent”. In the 1<sup>st</sup> Survey the mean implementation score was 59 for the research themes. Three research themes – Foresight for the biosphere, Governance and the political economy of the bioeconomy, and Socio-cultural dimension of the bioeconomy – are implemented to a smaller degree with an implementation rate of 23% to 31% based on the two categories “to a great extent” and “to some extent”.

Figure 3: Implementation based on main field of work (2<sup>nd</sup> Survey)



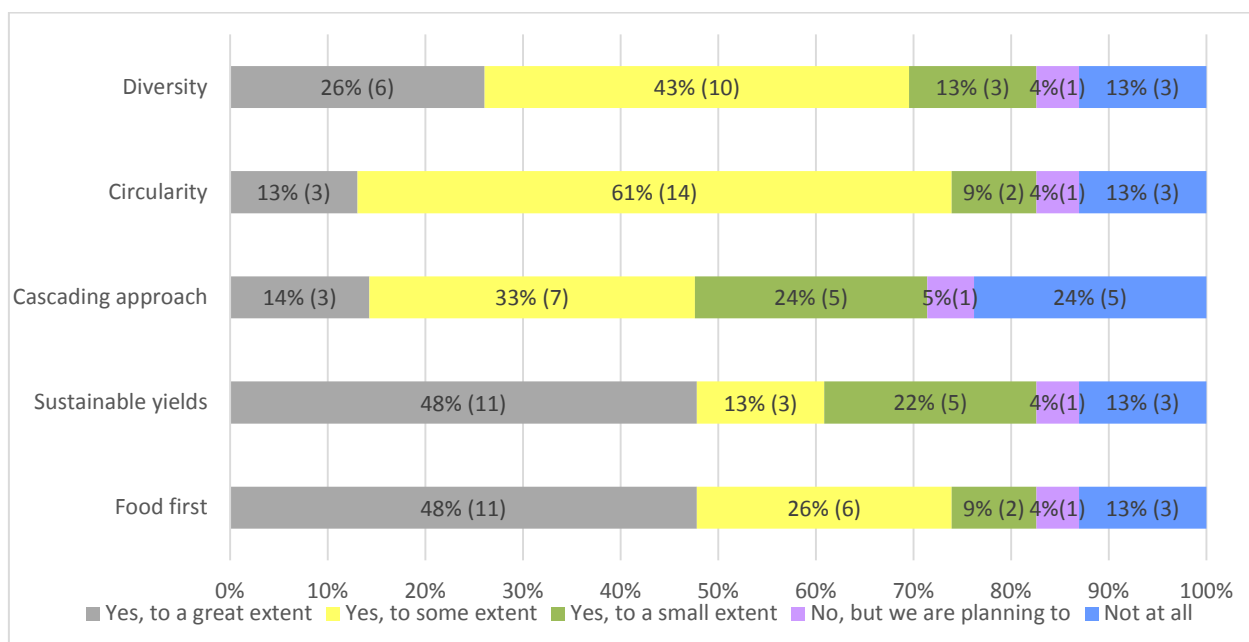
Note: Pillar labels show percentage with number of responses in parenthesis.

Figure 4: Implementation based on domains (2<sup>nd</sup> Survey)



Note: Pillar labels show percentage with number of responses in parenthesis.

Figure 5: Implementation of the five principles (2<sup>nd</sup> Survey)



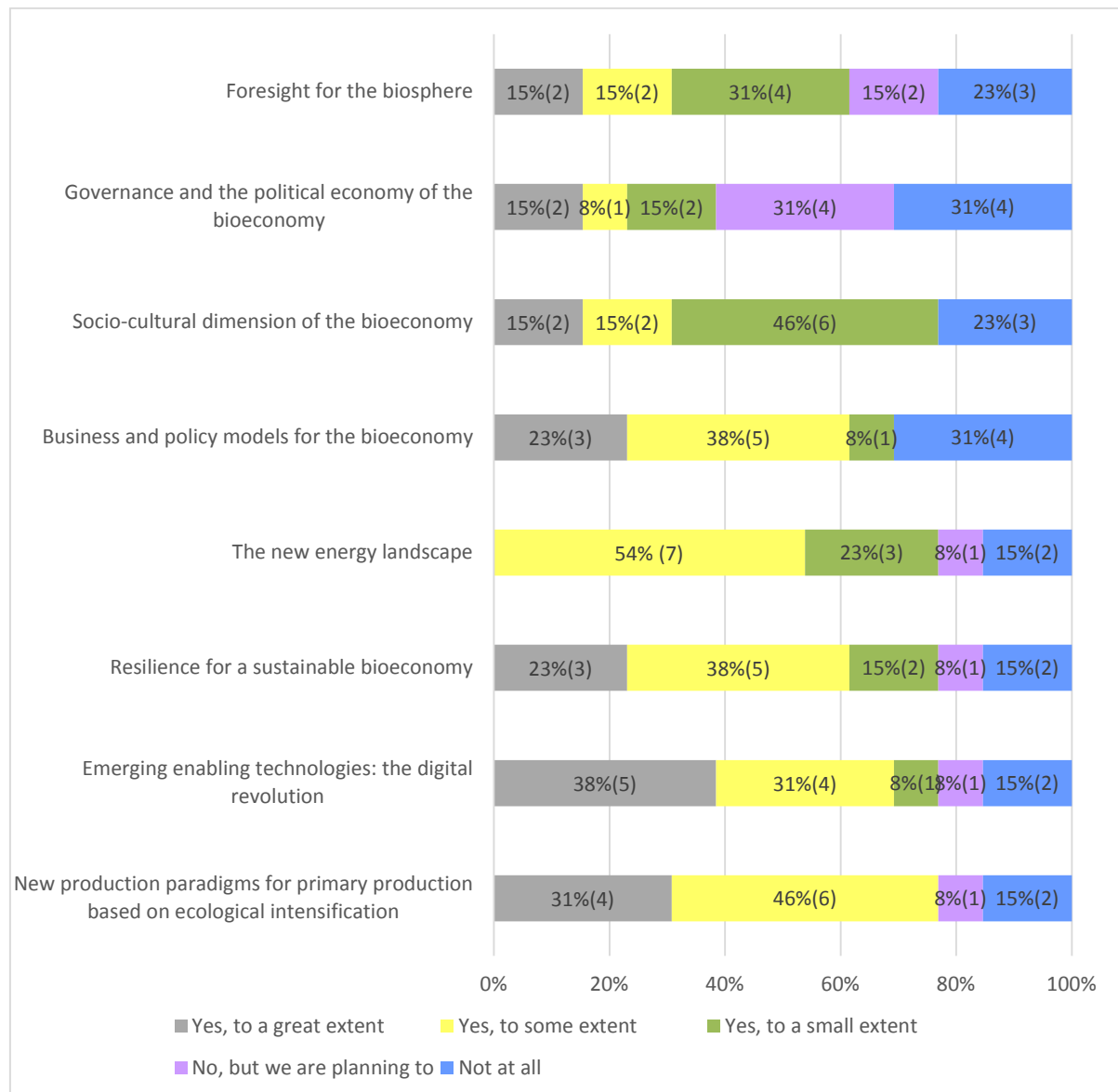
Note: Pillar labels show percentage with number of responses in parenthesis.

The degree of implementation of the six different organisational principles also varies. Four out of the six organisational principles show good implementation rates of 50% or more pertaining to the categories “to a great extent” and “to some extent”. The degree of implementation of the principles “New rewarding and assessment systems” and “Reflexivity” is lower with implementation rates below 38% based on the two options “to a great extent” and “to some extent”. The mean implementation score in the 1<sup>st</sup> Survey was 57.

Comparing the three components of the 19 recommendations, the Principles are implemented to a slightly higher degree than the research themes and the organisational principles, as also observed in the 1<sup>st</sup> Survey. The principles may be more tangible and thus easier to put into practice.

One comment on the general implementation stressed that the recommendations are quite abstract and relate to a “fuzzy” policy and research field, suggesting that answers relating to degree of implementation should not be viewed as based on strictly objective measures.

Figure 6: Implementation of the research themes (2<sup>nd</sup> Survey)



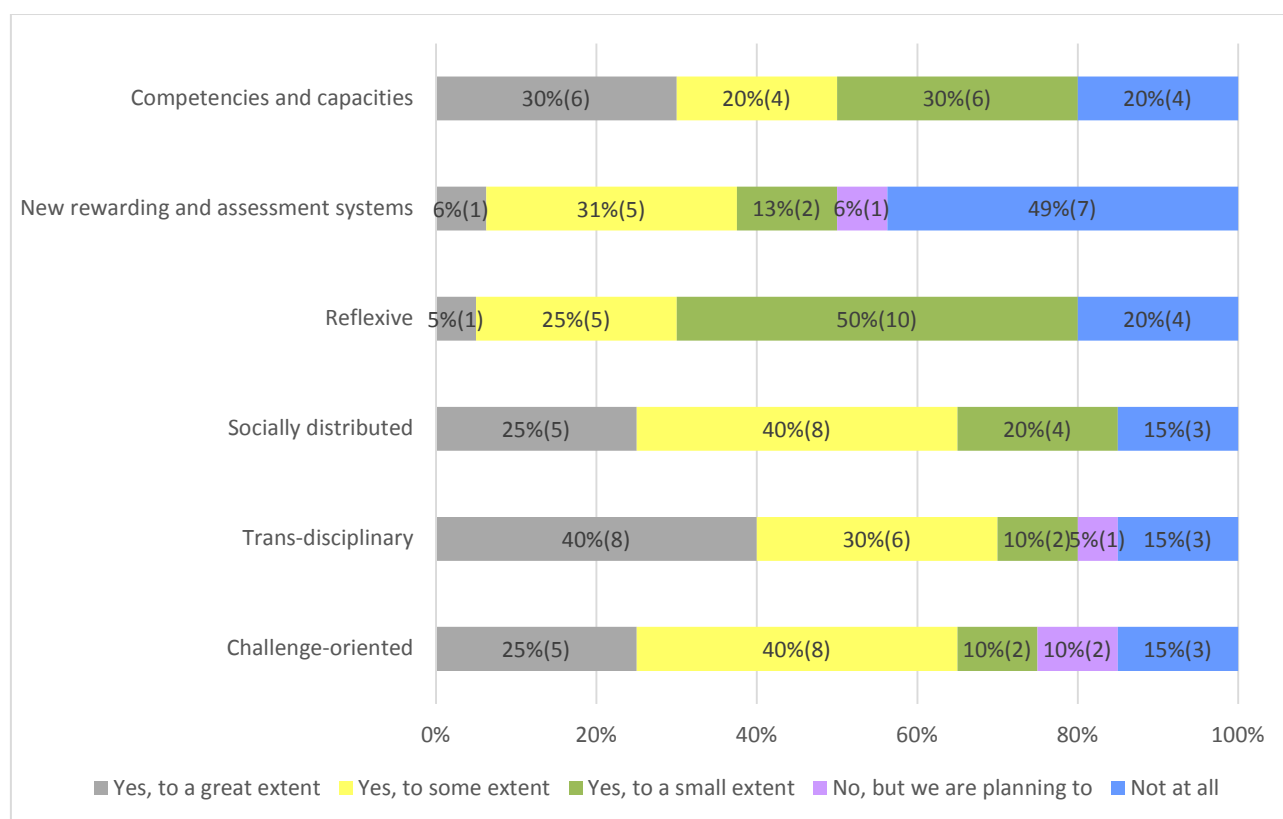
Note: Pillar labels show percentage with number of responses in parenthesis.

## 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. The results are shown in Table 13, 14, 15, and 16.

The results shown in Table 13 indicate that more economic resources are allocated for implementation of the 4<sup>th</sup> Foresight at the time of the 2<sup>nd</sup> Survey, but also that still half of the respondents had no or only few resources allocated for implementation.

Figure 7: Implementation of the organisational principles (2<sup>nd</sup> Survey)



Note: Pillar labels show percentage with number of responses in parenthesis.

Table 13. Implementation supported by economic resources.

Allocation of economic resources	1 <sup>st</sup> Survey		2 <sup>nd</sup> Survey	
	Number	Percent	Number	Percent
Not at all	9	32	3	21,5
We are planning to	4	14	0	0
To a small extent	10	36	4	28,5
To some extent	4	14	4	28,5
To a great extent	1	4	3	21,5
Respondents	28	100	14	100



Allocation of added competences for implementation reflects the same tendencies as observed for allocation of economic resources. The results in Table 14 indicate that among the organisations represented in the 2<sup>nd</sup> Survey, more competences have been allocated for the implementation than among respondents in the first survey but overall the allocation of additional competences is limited. This may be due to lack of resources to allocate extra staff to the area.

Table 14. Implementation supported by competences.

Added competences	1 <sup>st</sup> Survey		2 <sup>nd</sup> Survey	
	Number	Percent	Number	Percent
Not at all	17	61	4	28,5
We are planning to	3	11	1	7,5
To a small extent	3	11	4	28,5
To some extent	4	13	4	28,5
To a great extent	1	4	1	7
Respondents	28	100	14	100

Table 15 shows that the communication by management of the importance of the 4<sup>th</sup> Foresight and its implementation is rather similar in the two surveys. However, a larger percentage of respondents reported “to a great extent” to the question of communication by management in the 2<sup>nd</sup> Survey compared to the 1<sup>st</sup> Survey.

Table 15. Implementation supported by management.

Communication by the leadership	1 <sup>st</sup> Survey		2 <sup>nd</sup> Survey	
	Number	Percent	Number	Percent
Not at all	10	35	5	35,5
We are planning to	3	10	1	7
To a small extent	7	24	2	14,5
To some extent	6	21	3	21,5
To a great extent	3	10	3	21,5
Respondents	29	100	14	100

Table 16 shows that most respondents, equivalent to 63% in the 1<sup>st</sup> Survey and 86% in the 2<sup>nd</sup> Survey, had already been working with bioeconomy initiatives to some or a great extent prior to the launching of the 4<sup>th</sup> Foresight.

Table 16. Implementation by prior initiatives.

Prior experience with bioeconomy initiatives	1 <sup>st</sup> Survey		2 <sup>nd</sup> Survey	
	Number	Percent	Number	Percent
Not at all	1	3	0	0
We are planning to	3	10	2	14
To a small extent	7	24	0	0
To some extent	10	35	8	57
To a great extent	8	28	4	29
Respondents	29	100	14	100

Respondents, who had been working with bioeconomy initiatives prior to the launch of the 4<sup>th</sup> Foresight, were asked to what extent the 4<sup>th</sup> Foresight had been supporting these initiatives. The results reported in Table 17 show that all respondents in the 2<sup>nd</sup> Survey stated that the 4<sup>th</sup> Foresight supported these bioeconomy initiatives. This indicates that the support has increased in the period from the first to the second survey.

Table 17. Implementation by support to prior initiatives.

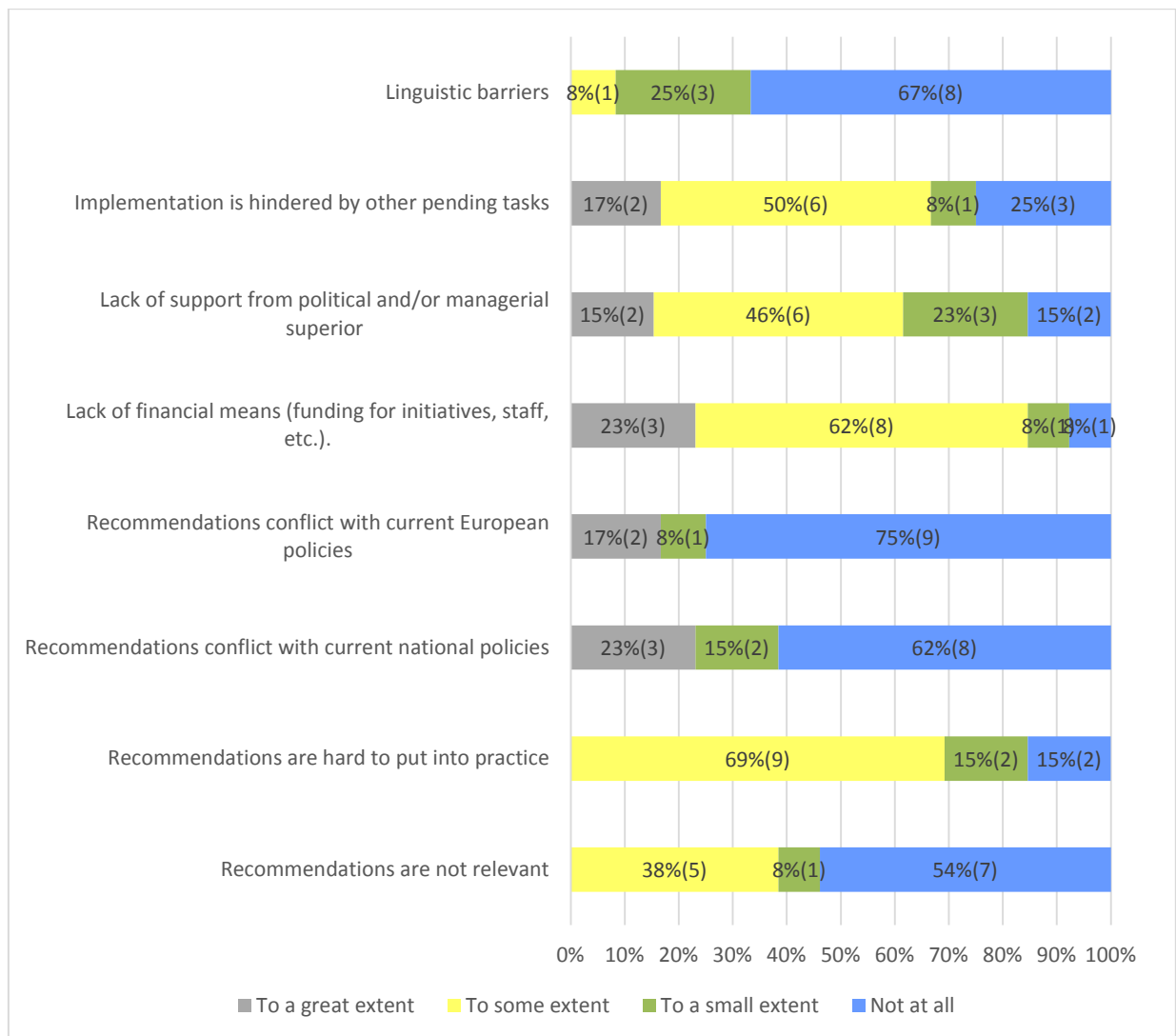
Extent to which the 4 <sup>th</sup> Foresight was supportive of prior bioeconomy initiatives	1 <sup>st</sup> Survey		2 <sup>nd</sup> Survey	
	Number	Percent	Number	Percent
Not at all	2	7	0	0
To a small extent	5	18	3	25
To some extent	19	68	4	33
To a great extent	2	7	5	42
Respondents	28	100	12	100

Overall, comparison of the results of the two surveys indicates an increased support for the implementation process over time. However, the results should be interpreted with caution as only 14 or fewer answers were available for the 2<sup>nd</sup> Survey compared to 28 or 29 for the 1<sup>st</sup> Survey and as no statistical tests were performed. Furthermore, the respondents in the 2<sup>nd</sup> Survey may not be fully representative of the respondents in the 1<sup>st</sup> Survey.

## Obstacles

Eight different obstacles to the implementation process were presented to the respondents. The respondents were asked to report the extent to which their organisation had encountered the eight different obstacles during their work with the implementation of the 4<sup>th</sup> Foresight. The results are presented in Figure 8. The obstacles most frequently encountered are lack of financial means, a busy work schedule, difficulties in putting the recommendations into practice and lack of support from superiors. These obstacles were also ranked highest in 1<sup>st</sup> Survey. Linguistic barriers are considered of minor importance in both surveys.

Figure 8: Obstacles to implementation (2<sup>nd</sup> Survey)



Note: respondents could choose more than one response option. Pillar labels show percentage with number of responses in parenthesis.

About 85% of the respondents find the recommendations hard to put into practice. However, less than half of the respondents question the relevance of the recommendations. Conflicts with national and EU policy were generally only encountered to a small extent.

In comments relating to obstacles of the implementation of the 4<sup>th</sup> Foresight, the lack of encouragement of national governments to implement the 4<sup>th</sup> Foresight recommendations is underlined. Furthermore, another comment focusses on the methodology of the 4<sup>th</sup> Foresight, specifically the calculation of the scenarios.

### Ideas for improvement

Respondents were asked to rank four different suggestions for improvement of the dissemination and implementation of the 4<sup>th</sup> Foresight and future foresights. One indicates the most important and four the least important suggestion. Results are presented in Table 19 and illustrated in Figure 9.

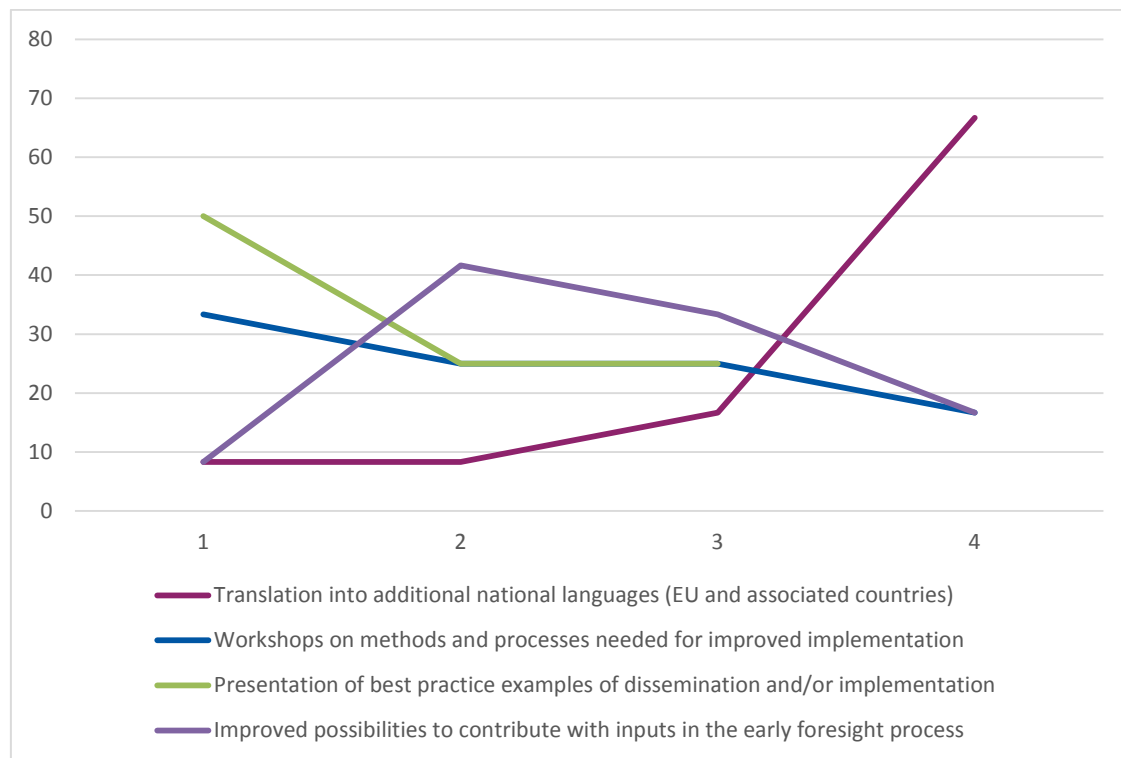
Table 19: Percent of respondents rating each option by importance (2<sup>nd</sup> Survey)

What could be done to improve the dissemination and/or implementation of the 4 <sup>th</sup> Foresight as well as future foresights?	Importance rating			
	1	2	3	4
Improved possibilities to contribute with inputs in the early foresight process.	8%	42%	33%	17%
Presentation of best practice examples of dissemination and/or implementation.	50%	25%	25%	0%
Translation into additional national languages (EU and associated countries).	8%	8%	17%	67%
Workshops on methods and processes needed for improved implementation.	33%	25%	25%	17%
Respondents	12	12	12	12

When rating one and two are added there is a great deal of agreement between the results of the 1<sup>st</sup> and 2<sup>nd</sup> Survey. Presentation of best practice examples of dissemination and/or implementation is considered most important by 75% of the respondents in both surveys. This is elaborated further in a comment in the 2<sup>nd</sup> Survey addressing improvement of dissemination and implementation. The comment expresses the need for presentations of real life examples to actors, accompanied by evaluations to demonstrate performance. Workshops on methods and processes for

improving implementation are the second highest ranked suggestion judged by 58% of the respondents. Improved possibilities to contribute with inputs in the early foresight process are considered important by half of the respondents. Translation into additional languages is considered the least important factor by about 70% of the respondents.

Figure 9: Percent of respondents rating each option by importance (2<sup>nd</sup> Survey)



## The 5<sup>th</sup> SCAR Foresight

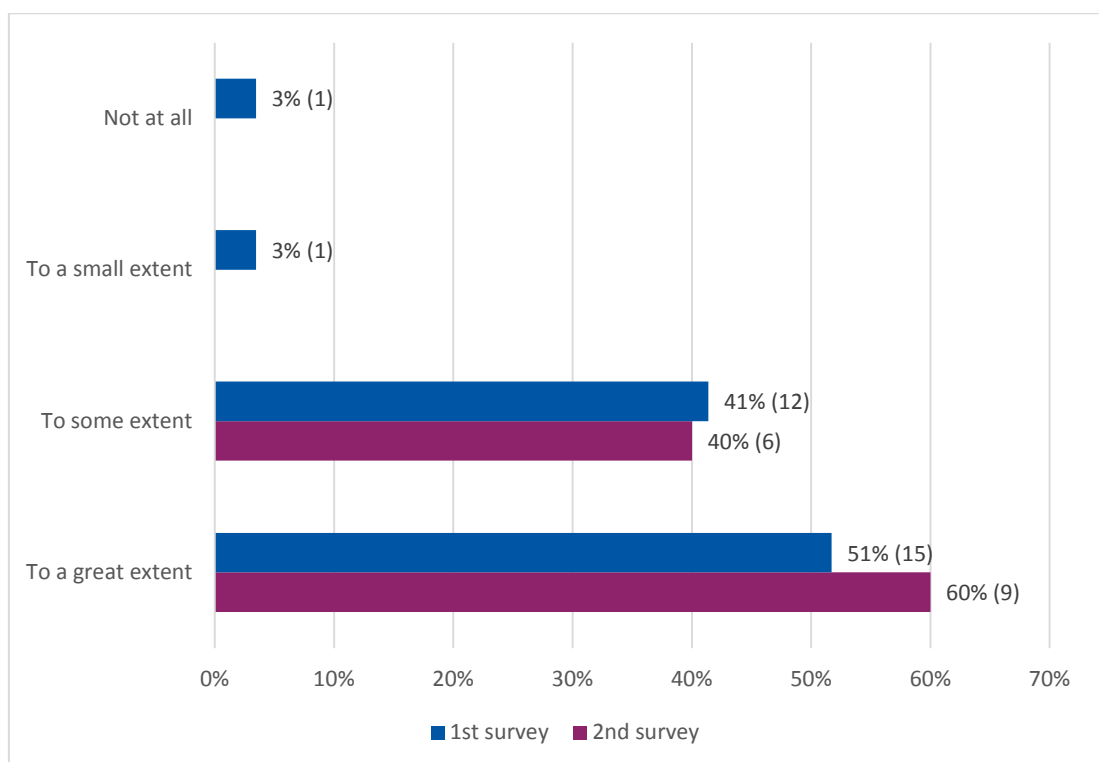
The 4<sup>th</sup> SCAR Foresight Exercise is followed by the 5<sup>th</sup> SCAR Foresight Exercise which is currently in process:

“Natural resources and food systems: Transitions towards a “safe and just” operating space”.

The extent to which respondents, both from the 1<sup>st</sup> and 2<sup>nd</sup> Survey, expect their organisation to pay attention to the launching of a 5<sup>th</sup> SCAR Foresight is shown in Figure 10. The results of both surveys show a great awareness in a 5<sup>th</sup> SCAR Foresight.



Figure 10: Pay attention to 5<sup>th</sup> SCAR Foresight



Note: Pillar labels show percentage with number of responses in parenthesis.

## Conclusion and recommendations

The 1<sup>st</sup> and 2<sup>nd</sup> Survey form the basis of an overall evaluation of the dissemination and implementation of the 4<sup>th</sup> Foresight. The results indicate that the 4<sup>th</sup> Foresight is well disseminated to and by the participants in the surveys. Furthermore, the overall extent of the implementation indicates a reasonable rate of implementation taking into account the rather recent launching of the 4<sup>th</sup> Foresight. The 2<sup>nd</sup> Survey shows a slightly higher rate of implementation than the 1<sup>st</sup> Survey. However, it should be considered that only 14 or fewer answers were recorded for questions on implementation in the 2<sup>nd</sup> Survey compared to 28 or 29 in the 1<sup>st</sup> Survey and that only five of the nine countries contributing to the 2<sup>nd</sup> Survey responded to both surveys. The respondents in the 2<sup>nd</sup>

Survey are then not necessarily representative of the respondents in the 1<sup>st</sup> Survey. Therefore, we cannot conclude whether the difference reflects an improved implementation rate or a difference in the samples. Moreover, no statistical tests have been conducted to assess whether the presumed differences are significantly different.

The results of the analyses further indicate that allocation of economic resources as well as additional providing 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 4<sup>th</sup> Foresight particularly concern lack of financial means, a busy work schedule, difficulties in putting the recommendations into practice and lack of support from superiors. Respondents recommended that better implementation may be obtained by sharing best practices, as well as methods and tools for implementation. For future foresights, respondents point to the importance of having the possibility to contribute with inputs early in the foresight process. Respondents in both surveys showed great interest in launching of a 5<sup>th</sup> Foresight.

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