CLIMATE SMART ADVISORS

State-of-play, gaps, barriers and drivers of CS-AS across member states and associated countries

Deliverable 1.1

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Disclaimer

List of Abbreviations

ASP	Advisory Service Provider
CoDIE	Co-Design Innovation Experiment
CoP	Community of Practice
CS	Climate Smart
CSA	Climate Smart Advisor
CS-AKIS	Climate Smart Agriculture Knowledge and Innovation Support
CSF	Climate Smart Farming
GHG	GreenHouse Gas
MIP	Multi-actor Innovation Project
MSP	Multi-Stakeholder Partnership
NC	National Coordinator
PDF	Pilot Demonstration Farm
TL	Thematic Leader
WP	Work Package

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1 Abstract

This deliverable aims to provide the overview of the context for climate smart advisory services in all ClimateSmartAdvisors project's partner countries and laying a foundation to develop the CSA network in each of those countries. Through the deliverable we aim to understand the current state-of-play of the conditions and context in which agricultural advisors are currently working in across project countries. For this purpose, a survey was launched in the beginning of the project (September 2023) and was completed by 1104 respondents. The survey was carried out to collect answers from all partner countries to be able to obtain a better understanding on the state, gaps, drivers, and barriers for climate smart advise in regional and national levels relevant for the project implementation. The results of the survey will provide a basis for further development of the CSA network at national level in each partner country and will form the starting point for the work in multiple project work packages. The deliverable consists of results and analysis following the structure of the survey with four main sections: 1) socio-demographics; 2) interaction with other stakeholders; 3) knowledge levels and; 4) beliefs and attitudes. The results and analysis of the survey suggest generally a positive base for the development work of CSA with responses from various socio-demographic groups, indicating a good mix of perspectives. The attitudes towards CSF, both from advisors themselves and in broader national networks, appears to be mainly positive and the knowledge levels of advisors on climate change related matters typically good. The knowledge repositories and support for managing and communicating the complexity of the climate change related matters are some of the aspects recognised as common challenges across countries which can be addressed with the coming ClimateSmartAdvisors activities.
In general, the results do not support drawing strict conclusions based on the regions or specific socio-demographic groups of advisors, but rather to recognise the variation between country levels in multiple aspects. Furthermore, the results do provide support to develop the activities planned as a part of ClimateSmartAdvisors and to allow for a better design of those activities, so that they address the needs and desires of the advisors recognised from the results.
It is worth acknowledging that the conclusions are limited to get an insight on the project level, and are not a representative sample of European advisors.

2 Introduction

In ClimateSmartAdvisors, advisors are recognised as being in a key position in developing and sharing climate smart (CS) innovations and good practices between peers and with farmers. Therefore, ClimateSmartAdvisors works on improving the opportunities, knowledge, and skills of agricultural advisors to support farmers in the implementation of climate change mitigation and adaption actions across Europe. The project aims to boost the role of agricultural advisors and advisory service providers (ASP) across by strengthening their capacity in providing targeted advice on climate mitigation and adaptation approaches, and by sharing solutions for impactful advisory methods. By boosting the role of the EU agricultural advisory community, we aim to contribute to an acceleration of the adoption of climate smart farming (CSF) practices by the wider farming community within and across EU Agricultural Knowledge and Innovation Systems (AKISs).

ClimateSmartAdvisors work package (WP) 1 works on connecting advisors and fostering peer-learning by setting up Communities of Practice (CoPs) in each partner country. A total of 260 advisory CoPs will be set up to boost peer knowledge exchange and cross fertilisation on CSF practices and methods on a national and European level. The CoPs will be supported with dedicated training activities and a CSF interactive knowledge and methods repository. Connections will be made with national multi-actor innovation projects (MIPs) and AKIS actors to further strengthen the advisor's capacity in providing CS advice and supporting farmers in their systemic transition. Further, as a specific aim for WP1, the CSA network makes a link to the pilot demonstration farm network in our sister project Climate Farm Demo, to grow the network and support peer learning between advisors, both on impactful advisory methods and CSF practices.

To understand the starting point and state of play of the conditions, context, and knowledge reservoirs in which advisors are currently working, a survey on was launched on September 5th 2023. This "state-of-play survey" was launched to provide a foundation for further development of the CSA network in each country as well as form the basis for the work in multiple project work packages. The survey was conducted in cooperation with WP1, WP2 and WP5 and it is expected to support also the project activities in other WPs. Deliverable 1.1 presents the results and findings from this survey for each of the ClimateSmartAdvisors project's member states and associated countries. It provides insight on the current context, and on the gaps, drivers and barriers for CS advice in all partner countries. The results will underpin the further development of the CSA network in the project and each country, which is the core of the WP1 activities. Additionally, the results will be used to kick-start the CoP activities across Europe by feeding into the guidelines for setting up and running CoPs for CSAs, also provided by WP1. With the aim to network CSAs to foster peer learning and knowledge exchange in WP1 the Deliverable 1.1 is an important source for identifying interdependencies and synergies with regional or national CS-AKIS activities to support impactful ways for co-operation within the project activities.

It should be acknowledged that the survey results do not provide a representative sample of European advisors. Therefore, care should be taken in forming conclusions. Nevertheless, we are confident that the results presented here provide valuable insights of use at the project level.

3 Survey Development and Analysis

3.1 The survey objective

The objective for the survey was to gather understanding on the climate smart advisory services in the project countries.

For setting up successful CoPs, WP1 – Task 1.1 is set up to understand motivations, expectations, barriers, and drivers for CSAs. While WP2 concentrates on training advisors for climate smart advice and WP5 on the development of training materials and a climate smart farming toolkit, both these work packages are also seeking to understanding the climate action training needs of agricultural advisors (Task 2.1) and to analyse barriers and levers for farmers and advisors for taking up climate smart practices (Task 5.1). To cover these three aforementioned needs, a joint survey was selected as method. The overall objective for the survey was to gather general information and understanding on the climate smart advisory services in the project countries. For deeper analysis both WP2 and WP5 have planned additional focus group interviews to follow up the survey results and gather deeper understanding from targeted groups. The survey results will also feed into the work of WP6 by providing insights on the stakeholders' collaboration and national AKIS-contexts from the perspective of advisors. The survey is structured along 4 main themes, each of which has more specific objectives, which are further explored in the next paragraph.

3.2 The structure of the survey

The survey consists of 4 main sections; i) socio-demographic information; ii) interaction with other stakeholder iii) knowledge levels on climate change; iv) beliefs and attitudes towards climate change. The survey has a total number of 52 questions from which Q1-3 were for general consent and Q51-52 for options for follow-up.

3.2.1 Socio-demographic

In the first section (Q4-Q14), general (socio-demographic and professional) information of the participants was collected to understand the backgrounds and positions of the respondents. Demographic analysis provides understanding of the distribution of survey respondents across different age groups, positions, and technical backgrounds which allows to identify patterns and trends that may be relevant for recognising segments based on their characteristics. Insights can be gained on how perceptions, opinions, and behaviours differ across groups. Furthermore, based on the demographic information, tailored recommendations can be provided for example based on the technical expertise. Finally, demographic data helps validate the credibility and reliability of survey findings. It provides the insight of the response's diversity and representative sample on which the study's conclusions are based.

3.2.2 Interaction with other stakeholders

In the second section (Q15-Q28), we gathered information on interaction and dynamics with other actors in relation to climate change. Understanding how respondents interact with other stakeholders allows to conduct network analysis and can reveal key players, communication patterns, or collaboration dynamics within different countries or regions. Additionally, identifying

communication gaps or barriers that hinder the flow of information on climate change related matters can help to form more efficient approaches to improve communication and knowledge sharing. Information on the overall interaction within the different actors, enables to strengthen collaborations, and foster positive relationships among national CS-AKIS-actors. This section will specifically support the work in WP1 and WP6 in the process of knowledge sharing and AKIS collaboration.

The section also covers aspects on the current working context for advisors from the perspective of observed and expected impacts of climate change and general attitudes towards climate actions. These aspects will support the process for building an understanding of the national advisory conditions in relation to other actors, but also for the structures and conditions for the advisory services. This section was anticipated to provide understanding how advisors could be best supported to address concerns, adapt communication strategies, and improve the likelihood of engagement in climate change actions.

3.2.3 Knowledge levels

The third section (Q29-Q43) explored current knowledge levels around climate change and gauged for knowledge/training needs. This section is intended to support the further work in WP2 to train advisors to deliver targeted climate smart advice as well as WP5 in the development of training materials & climate smart farming toolkit. By asking about knowledge levels and resources, it is possible to identify areas where respondents might lack sufficient understanding or expertise that should be addressed in coming trainings and recognise possible differences between countries. The data provides the base to plan training opportunities aligned with advisors needs and interests, and with available resources. This section also gives an insight on how well advisors are keeping up with the rapid (technological) changes that the agricultural sector is facing, and possibly identifies areas that need immediate attention.

3.2.4 Belief and attitudes towards climate change

Finally, in the fourth section (Q44-Q50), the focus was on current beliefs and attitudes around climate change, and motivations, drivers, and barriers for taking climate change actions, both on a personal and regional/national level. Understanding beliefs and attitudes can shed light on various aspects of individual and group behaviour, decision-making, and social dynamics. Furthermore, getting an insight on the motivation factors, drivers or barriers can anticipate the intention and behaviour more accurately and can help to tailor ways to influence behaviour or share knowledge. Capturing beliefs and attitudes provide valuable input also for policy-making and strategic planning. With the data it is possible to better align initiatives with the prevailing sentiments to ensure higher acceptance and cooperation. This section will support the work in WP1, WP2, WP5 and WP6 in the planning of the activities for Communities of Practice in each country, enhance cooperation and provide influential training contents.

3.3 Participation and distribution

ClimateSmartAdvisors has been structured to support the national dimension as a key level of implementation of the project actions. For ensuring the national coordination each partner country has a dedicated National Coordinator (NC) to supervise and organise activities in their respective country. For collecting answers, the NCs were asked to distribute the survey in their country to collect responses from advisors and/or those working in association with advisory services. To increase chances for success, and for obtaining a sufficiently high response rate, they were also offered the opportunity to translate the survey in their local languages if they found it relevant.

Moreover, NCs were free to plan the best approach to reach the target group and finally to distribute the survey. A list of tips and ideas were given to support this process (see the list below).

Tips for collecting answers:

- Include the survey as a part of training session/workshop/event: if you have a suitable event in mind to meet the target group (or part of it) you can include answering to the survey as a part of the event and use the survey as a base for further discussions/group works.
- Write a news item/press release in the local newspaper/magazine targeted for advisors to invite participation. This could include a general introduction to the project, and also explain what opportunities for advisors in the coming years through the project will be.
- Organise a competition/reward for those who answer.
- Use the invitation example below as a base but try to highlight the motivation factors (i.e. possibility to impact the future training) in your local language the best way.

The main target group was intended to be advisors, however, participation from other advisory associated stakeholders (e.g. managers, trainers, policy makers) was also welcomed. The aim was to reach a minimum number of 20 answers from each country. In the countries where substantial differences in legislation exist between regions, or where there are no or only few national advisory organisations, regional distribution was given as an alternative with the targeted number of 20 answers from each region. Belgium, Germany, and Spain decided to collect answers at regional level. All other countries focused on the country level for distribution.

3.4 Methodology

The survey analysis investigated several geographical levels where significant conclusions could potentially be drawn. Specific geographical clusters are presented in the Table 1 below.

Table 1: Geographic clusters used in the analysis (ATT: Austria; BE: Belgium; BG: Bulgaria; HR: Croatia; CZ: Czech Republic; DK: Denmark; EE: Estonia; FI: Finland; FR: France; DE: Germany; EL: Greece; HU: Hungary; IE: Ireland; IT: Italy; LV: Latvia; LT: Lithuania; LU: Luxembourg; NL: The Netherlands; PL: Poland; PT: Portugal; RO: Romania; RS: Serbia ; SK: Slovakia; SI: Slovenia; ES: Spain; SE: Sweden; UK: The United Kingdom)

Geographical scale	Clusters	Conductive analysis
EU member states (CSA project countries)	All answers included	All questions (Q4-50)
Country	ATT, BE, BG, HR, CZ, DK, EE, FI, FR, DE, EL, HU, IE, IT, LV, LT, LU, NL, PL, PT, RO, RS, SK, SI, ES, SE, UK	Sections: 1, 2, 3, 4 (Q4, Q9, Q12-14, Q17-18, Q24-25, Q40-43, Q49-50)
Pedo-climatic region	Nordic (5 countries: EE, FI, LV, LT, SE) Oceanic (7 countries: BE, DK, FR, IE, NL, PT, UK), Continental (12 countries: ATT, BG, HR, CZ, DE, HU, LU, PL, RO, SK, SI, RS) Mediterranean (3 countries: EL, IT, ES)	Sections: 1, 2, 3 (Q1, Q13-14, Q18, Q21-22, Q40-41)
The level of greenhouse gas emissions	(1) High emissions (6 countries - FR, DE, ES, IT, PL, UK) (2) Medium emissions (6 countries - IE, NL, RO, BE, DK, EL) (3) Lower emissions (15 countries - ATT, BG, CZ, EE, HR, LV, LT, LU, HU, PT, SL, SK, FI, SE, RS)	Sections: 1, 2 (Q1, Q13-14, Q18)
Region	Spain: Andalucia, Navarra, Euskadi, Otros (4 regions) Germany: Niedersachsen, Bremen, Hamburg, Schleswig-Holstein, Mecklenburg-Vorpommern, Nordrhein-Westfalen, Hessen, Sachsen-	Only in the separate country reports

Geographical scale	Clusters	Conductive analysis
(in countries where relevant)	Anhalt, Berlin, Brandenburg, Rheinplan-Pfalz, Thüringen, Sachsen, Baden-Würtemberg, Bayern, Saarland (16 regions) Belgium: Wallonië, Vlaanderen (2 regions)	

Respondents were segmented into multiple groups based on the country to gather in-depth understanding on geographical differences. For each project country, an additional report on the national survey results has been provided separately. This national report can then be used at national/regional level to gather reflections from the project representatives from each country. As a part of the D1.1 analysis the different geographical levels have been compared and are presented if considered relevant and/or significant. Table 1 shows the different geographical clusters and for which sections and questions results are presented. The full list of the questions can be found in Annex 1.

The analysis aims at providing general conclusions on the current state-of-play of climate smart advisory services in Europe. However, as the conditions and impacts of climate change are generally recognised to vary significantly in different European regions and even inside bigger European countries, the analysis will provide rough generalisations from the project countries and should be followed up by country level analysis to better understand the local advisory conditions in relation to the climatic conditions.

Impacts of climatic change can be very localised.

Due to the relatively small sample size in each country, we do not consider the results to be fully representative. Results presented here are not to be considered as statistically relevant or valid, but rather "enough for purpose" and with the focus on qualitative analysis.

4 Results

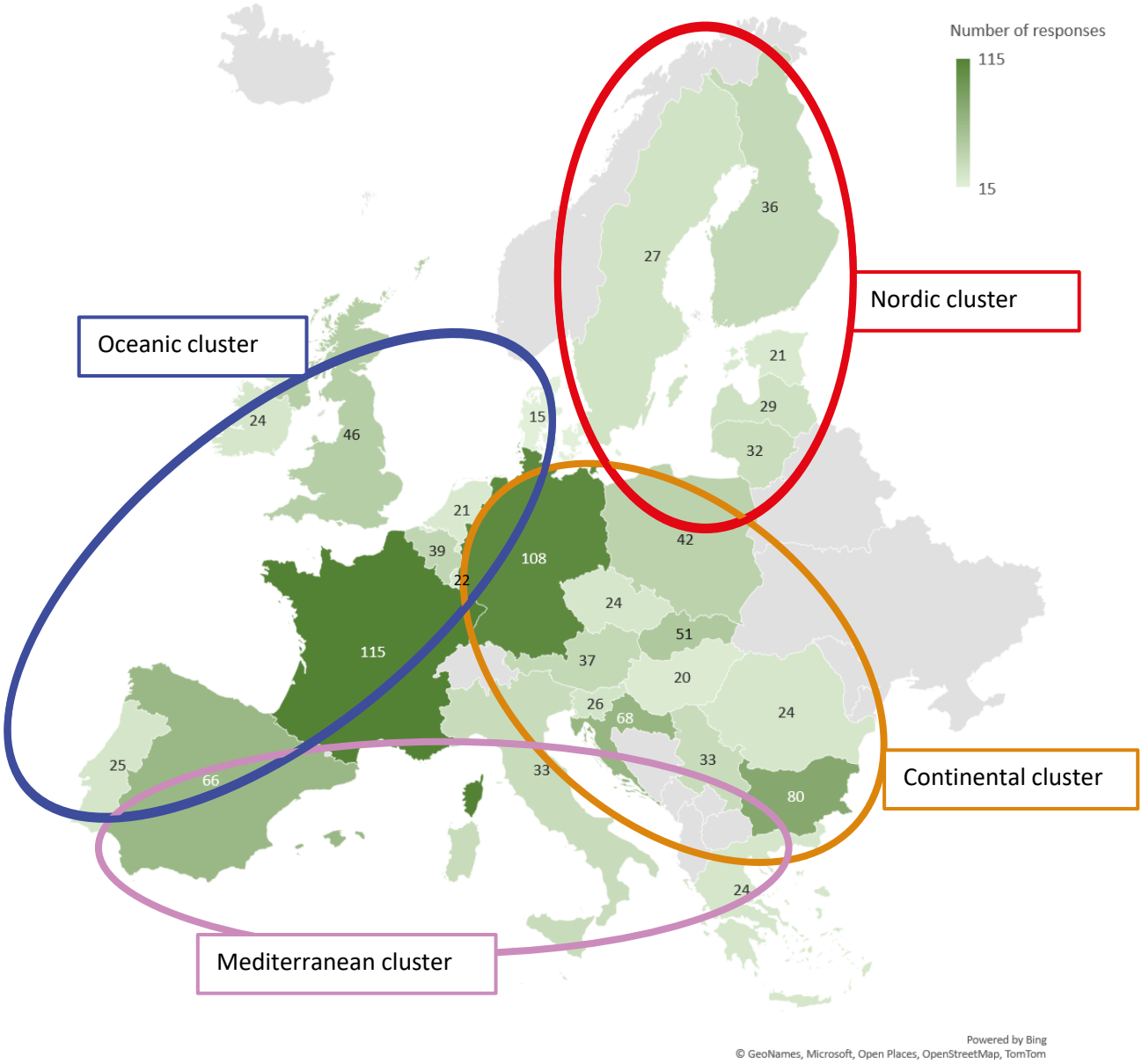

Figure 1: Number of responses per country and division of countries between climatic clusters

In total, 1104 answers were collected throughout the project partner countries. France and Germany covered one fifth of all the answers (21 %) follow by Bulgaria, Spain, and Croatia with another fifth (20 %). These two groups are representing mainly the Continental and Oceanic climatic clusters. The two other climatic clusters Nordic and Mediterranean each cover both approximately 10 % of the answers (13 % and 11 %, respectively). The countries were also clustered based on the level of greenhouse gas emissions defined by the European Environment Agency data in 2018. With this aspect the division between the share of the responses, the low emissions countries represent the highest share of responses (49 %), followed by high emission countries (38 %) and medium emission countries (13 %).

4.1 Socio-demographic characteristics

Table 2: Socio-demographic aspects of the respondents

Number of responses	**1104**			
Most common age groups	41-50 years (26 %)		51 – 60 years (25 %)	31 – 40 years (24 %)
Most common groups for years of professional experience	0-5 years (31 %)		>20 years (27 %)	6-10 years (18 %)
Most common sectors among respondents	Arable crops (50 %)		Dairy cattle (40 %)	Beef cattle (33 %)
Most common working organisation types	Public (46 %)		Advisory service of an association/cooperative (29 %)	Private consultancy company (14 %)
Gender distribution	Female: 559 (51 %)		Male: 522 (48 %)	Other: 7 (1 %)
Roles of respondents	Advisor (79 %)	Manager of advisor(s) (14 %)	I am training advisors (10 %)	Other (10 %)

The following socio-demographic aspects of respondents were considered: age, gender, role in providing advisory services, years of professional experience, the agricultural sector for which advice is primarily provided, and the type of organisation the respondent works in. Table 2 presents the shares of most common responses for different socio-demographic aspects.

Figure 2 provides an overview of the most common respondents considering all socio-demographic aspects together. The most common respondent for the survey is a 31 to 40 years old female advisor, working in a public organisation and dominantly on the field of arable crops with professional experience from 0 to 5 years. The gender related distribution among respondents was close to equal. However, differences between most common female and male respondent emerge notably in the prevalent age group, years of experience, and the type of organization they are affiliated with.

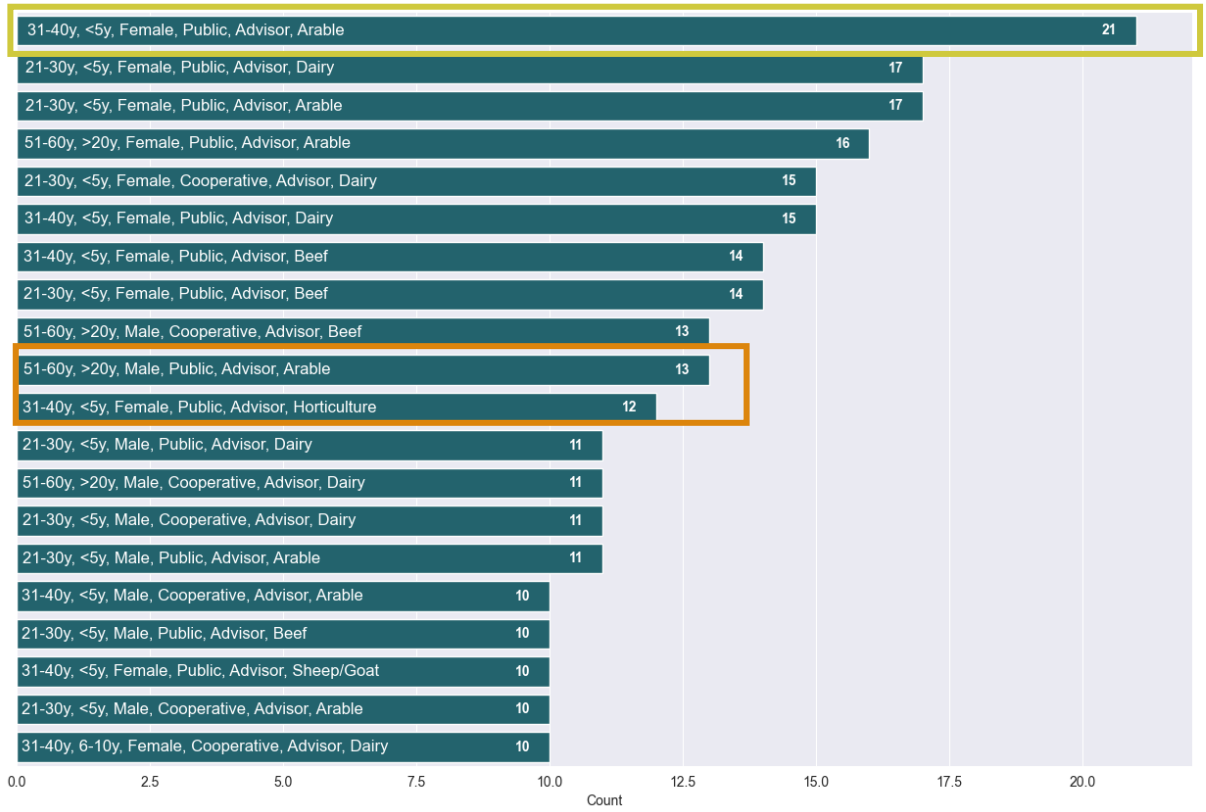

Figure 2. The 20 most common respondents based on the socio-demographic aspects

The age distribution of respondents is close to equal between three groups from 31 to 60 years. The distribution at country level is generally following a similar trend, with a few exceptions. In Belgium, France, Luxembourg and Portugal 50 % of the respondents were under 41 years old, while in Romania, Slovakia, Latvia, Estonia and Croatia the majority of respondents (over 50 %) was over 51 years old.

Majority of the respondents identified themselves as advisors (approximately 80 %), from who 30 % indicated also another role (manager, trainer of advisor(s),"other"). No significant distinction between age groups can be identified according to the role. In the role of manager males are more common (60 %) than female (40 %). Other roles mentioned are for example project manager, agricultural engineer or technician, and scientist.

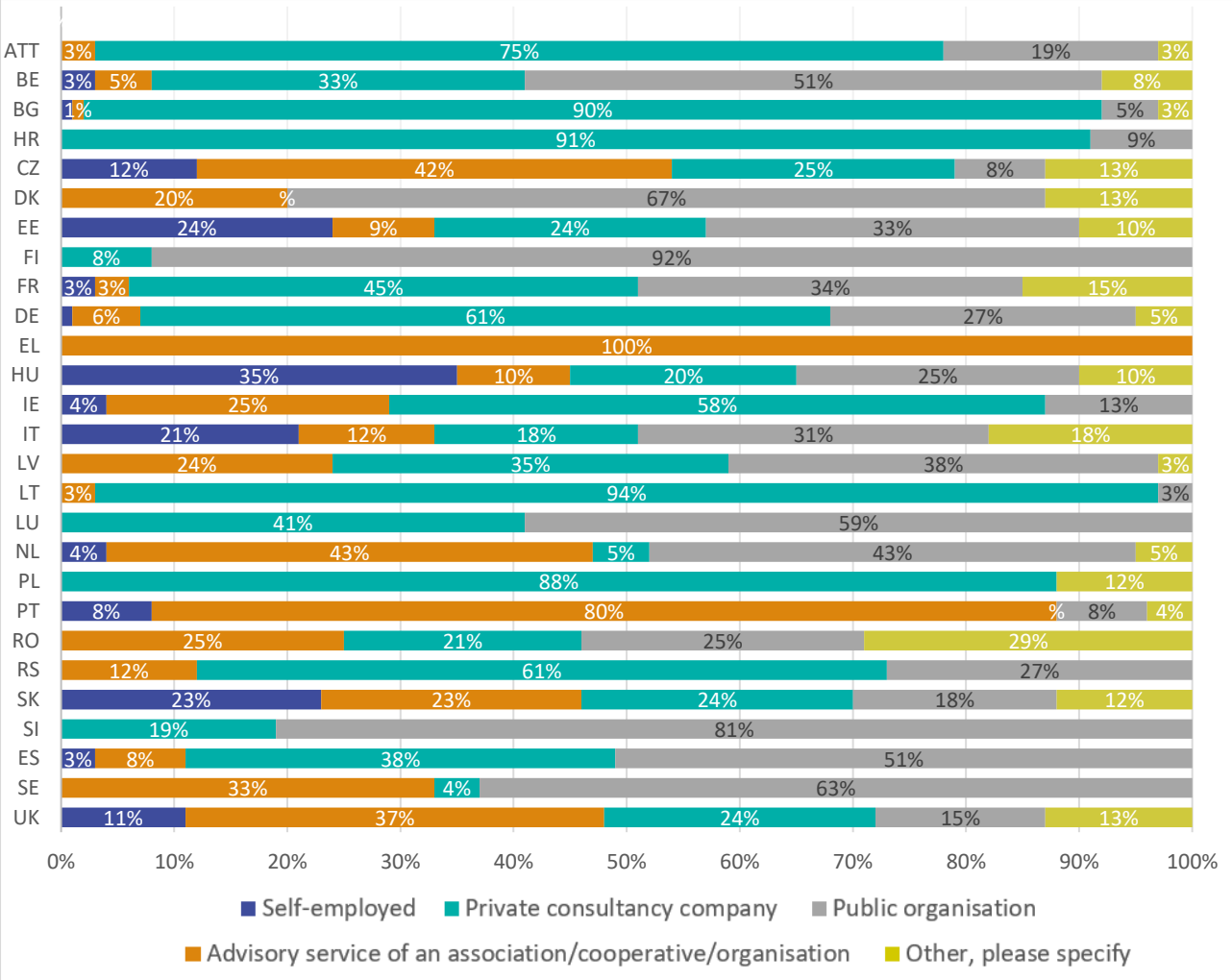

Figure 3: Most common organisation types in each country

Variation between countries is noticeable when looking at the different types of advisory organisations (see Figure 3). For Greece, all respondents and Portugal 80 % are presenting a private sector while the public sector is clearly dominant, with over 90 % of respondents, in Bulgaria, Croatia, and Latvia. The highest variation in organisation types is in Estonia, United Kingdom, Hungary, Italy, and Slovakia, for which all four categories were almost equally represented in the respondent group.

Arable crops was the main agricultural sector in which respondents provided advice. Looking at the main climatic clusters, most variation appeared in the Mediterranean cluster, where the shares of different production types was more evenly distributed, compared to other climatic cluster (see Figure 4). For the category “other” diverse production were mentioned e.g. organic farming, olive cultivation, beekeeping, and forestry.

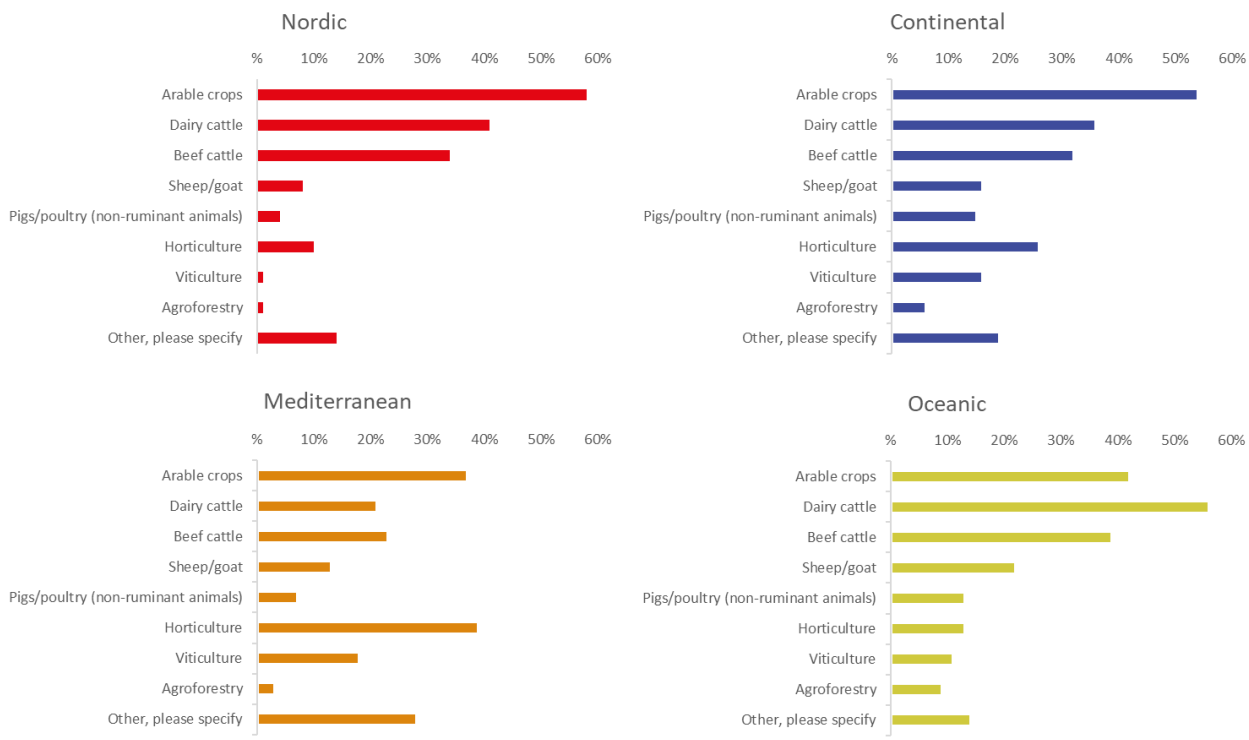

Figure 4: Types of agricultural systems in different climatic clusters

Year of professional experience split to two extremes among the respondents as presented in Figure 5. In one end with approximately 30 % are the ones with an experience of 0-5 year and among other 30 % are the ones with experience over 20 years. These are the two biggest groups among all participants. Between these two groups females are dominant with a shorter time of experience (65 %) and males with long experience (63 %). Same trend was followed in climatic clusters and in high-low emission clusters, but at country level differences can be noticed: the longest experience is most common in Greece with 66 % of the respondents belonging to the group over 20 years of experience followed by Croatia, Netherlands, and Spain, with all approximately 40 %. In the other extreme are countries like Bulgaria, Finland, Slovakia, Slovenia, Portugal, and Sweden all with a share of around 50 % of respondents belonging to the group with 0-5 years of experience. Denmark, as a single example, is having in both extremes approximately 40 % of respondents.

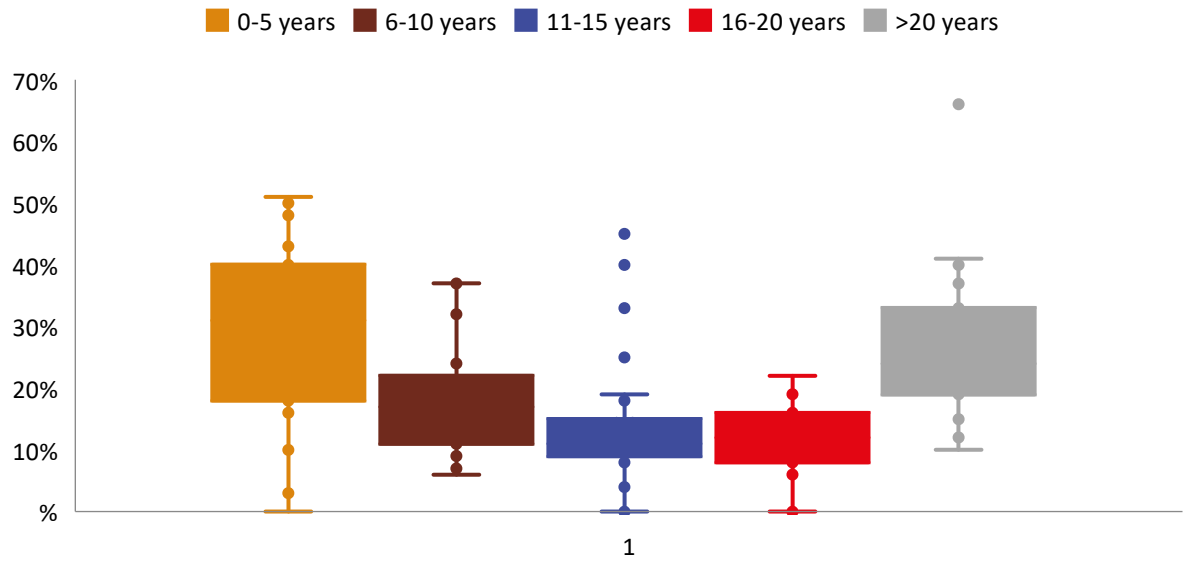

Figure 5: Shares of responses based on years of advisory service experience

4.2 Interaction with other stakeholders

The respondents were asked to indicate the frequency (never/from time to time/very regularly) of their interaction with predefined stakeholder groups and in the following question to indicate their perception for importance of the same stakeholder groups in promoting climate actions in their national context. The most frequently reported interaction is with farmers and advisors, while least interaction is reported with the bank/financial sector (58 % “never”) and media (38 % “never”). The importance of different actors on climate actions is following similar patterns with farmers, advisors and researchers being indicated as most important and the bank/financial sector being considered as least important (with 22 % of the respondents considering them as “not important at all”) (see Figure 6 below).

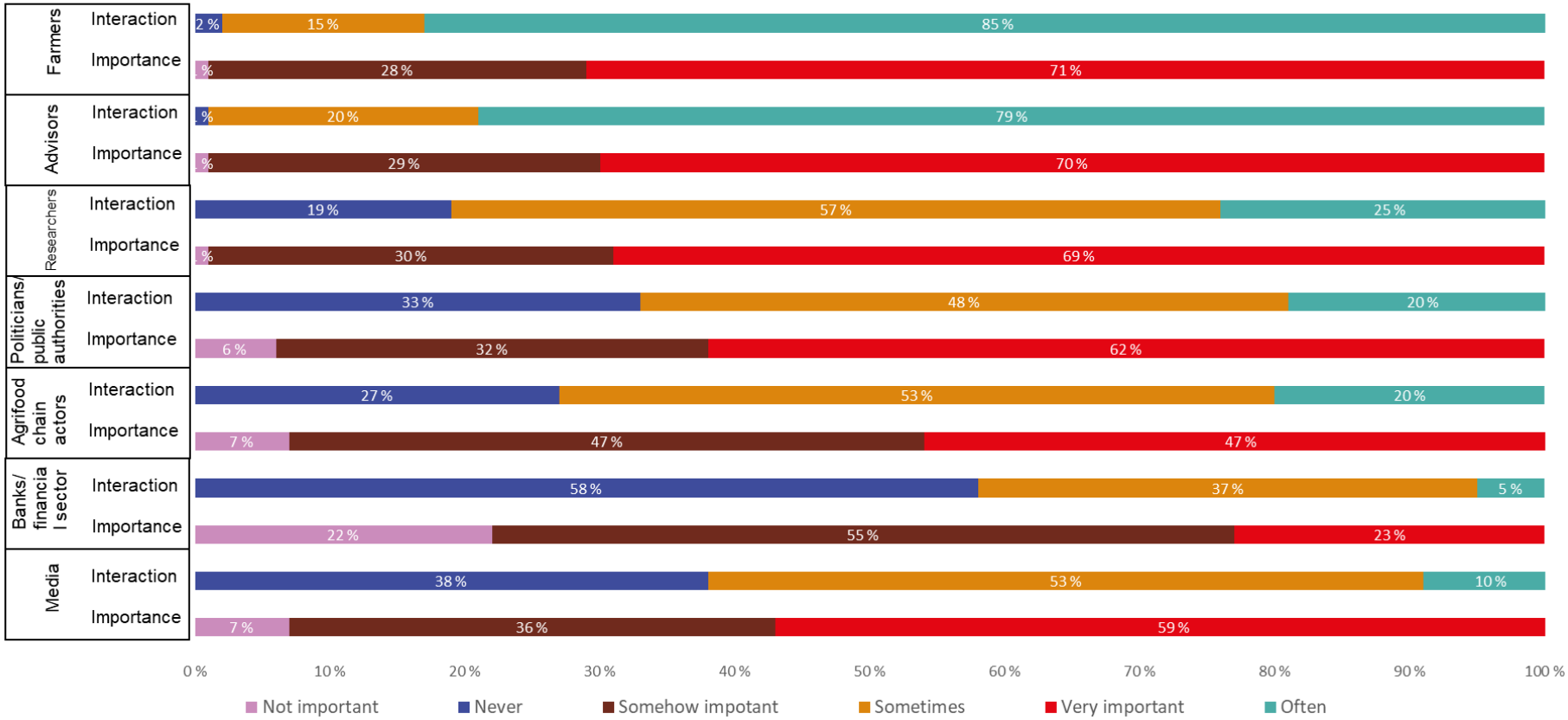

Figure 6: Frequency of interaction with given stakeholder groups and perceived importance of different actors in promoting climate actions in their country

When looking at the interaction and importance of different actors from the production sector perspective, the respondents from animal sectors - except for non-ruminant animals - appears to have least interaction with researchers compared to respondent from different sectors. Highest variation between sectors is regarding the interaction with politicians/public authorities where horticulture appears to have least interaction with the group and representatives from viticulture rate the importance of the group lowest (see Figure 7). Similar analyses were done based on the roles of the respondents (advisor/manager of advisors/trainers of advisors/other) where managers have most *interaction* in general with other stakeholders, and trainers most with researchers. Advisors are least active with public authorities and researchers compared to other roles. Furthermore, advisors also have fewer Interactions with the financial sector, media, agrifood-chain actors and public authorities (over 30 % of advisors indicating that they never interact with those stakeholders). The *importance* of the different stakeholders does not show significant differences based on the roles of respondents.

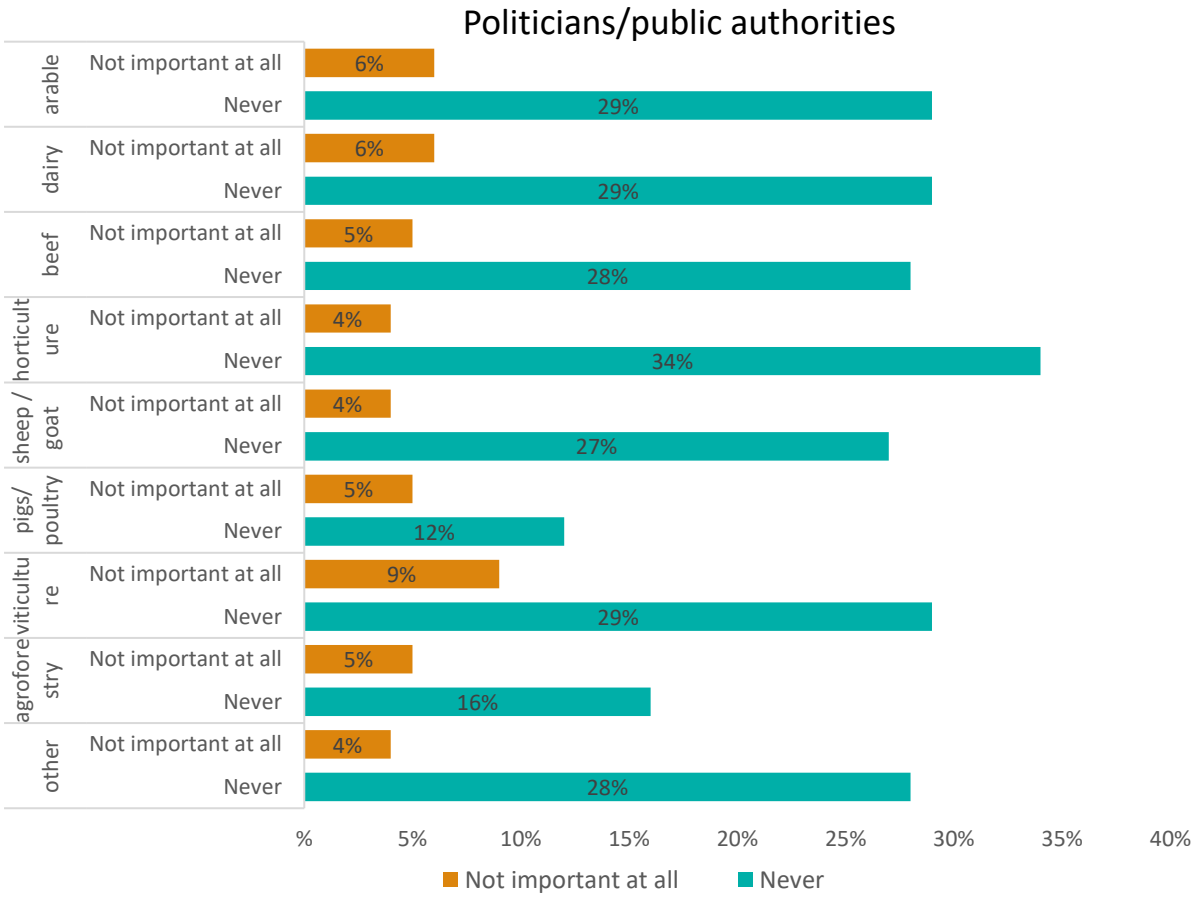

Figure 7: The shares of respondents who do not find politicians/public authorities important or never interact with the group based on the thematic area they primarily work in

We conducted a correlation analysis between Questions 15 and 16 (frequency of interaction and importance of interaction with given stakeholders), which summarises the relationship between the answers of the two questions. A correlation of 1.0 reveals a perfect match between the answers, i.e. all respondents that identify a group being important answered that they do have regular interaction. On opposite, if the correlation is -1.0 then the importance and interaction levels mismatch completely. A correlation close to 0.0 indicates that there is no clear pattern in the relationship between the answers or that the number of answers is low.

The results of the analysis are summarised in Figure 8, from which we can conclude that the advisors and farmers are having higher correlation (0.63 and 0.59, respectively) meaning that they regularly interact with them and consider them as important.

In the rest of the cases the correlation is relatively low, which may indicate the possibility of low interaction, even if the importance is valued high or vice versa. To understand the cases where the correlation is very close to 0.0 i.e. cases when considered important, but never interact, the number of answers among the low correlated groups was further checked (farmers (correlation -0.048), researchers (correlation -0.015) and media (correlation -0.083)). Regarding the researchers, 204 respondents answered that they never interact with researchers, even if 197 out of those 204 respondents consider them important or very important (96 %). For media, 89 % see them important but not interact that regularly (number of answers 368/412). The case related to the farmers has a low number of answers and the correlation does not show any significant relevance.

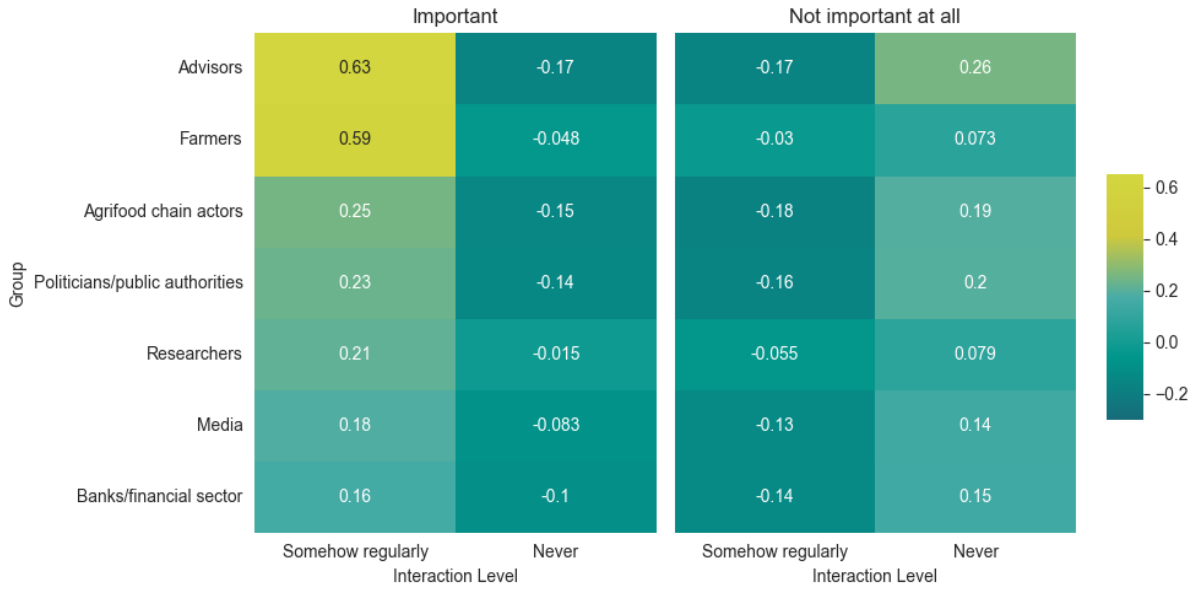

Figure 8: Correlation matrix indicating the correlation between the answers on interaction and importance of different stakeholder groups where "somehow regularly" includes answer options "very regularly" and "from time to time". The closer the number is to 1 or -1, the stronger the relationship between the variables. A value of 1 signifies a perfect positive relationship. A value of -1 signifies a perfect negative relationship

To identify important activities to promote climate actions, we asked the respondents to indicate the potential of different activities for promoting climate actions (not important at all; important; extremely important). From nine given options (Public speaking; Print/online media; Social media posting; Messaging with farmers (email/sms/etc.); One-to-one farm visit or consultation; Farm demonstration events; Facilitation of farmer discussion groups; Formal training for farmers; Act as an innovation broker/ intermediary) the most important ones are:

1. Farm demonstration events (66 % indicated extremely important)
2. One-to-one farm visit or consultation (66 % indicated extremely important)
3. Formal training for farmers (53 % indicated extremely important)

The least important, with highest number of responses indicating "not important at all" are:

- Messaging with farmers (email/sms/etc.) (16 % indicated not important at all)
- Act as an innovation broker/ intermediary (e.g. bringing different stakeholders together) (10 % indicated not important at all)

There are noticeable differences between countries, especially when looking at the least valued activities compared to the scoring at the EU level. For example, in the United Kingdom, Serbia and Slovenia acting as an innovation broker or intermediary is considered important or very important (100 %), but in Croatia (24 %) and France (23 %) one fifth do not consider it “not important at all”. Similarly, messaging with farmers is considered important or very important in Serbia (100 %) and Finland (98 %), but in Sweden (30 %) and Estonia (33 %) one third considered it “not important at all”. From the top three activities to promote climate change only “Formal training for farmers” showed substantial variation across countries. In some countries, roughly one-fifth of respondents indicate that this activity is "not important at all" (Netherlands 19 % and Czechia 21 %) while for other two all countries generally considered the activities important or extremely important.

Working context of advisors

To create an overview of the general climate change related context in which advisors are working in, we asked the respondents about the attitudes towards climate change, climate change impacts and their prospects for future.

The majority of the respondents have not faced direct opposition towards climate change in their work (see Figure 10). Those who have faced opposition indicated to face it multiple times per year mainly by farmers or the general public. The general trend is the same in different climatic and emission clusters, however the country level shows some variation. Based on the responses the most opposition is faced in Finland (yes; 67 %) and Bulgaria (yes; 60 %). While least opposition is in Belgium (no; 74 %), Poland (no; 76 %) and Portugal (no; 76 %). With the question “by whom” the respondents were allowed to select multiple stakeholder groups.

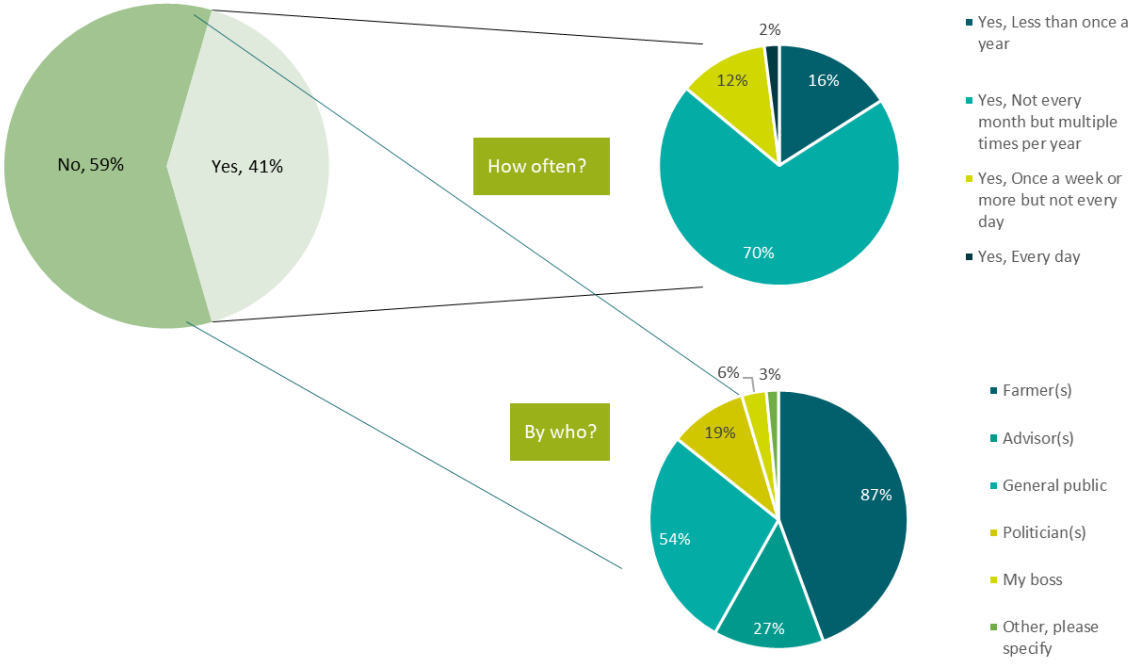

Figure 9: Opposition towards climate change

On average, the respondents agree that climate change impacts agricultural policies and farming practices in their country/region (average ratings of 3.8 and 3.9, respectively, on a scale of 1 to 5, where 5 represents strong agreement “extremely a lot” and 1 disagreement “not at all”). The highest percentage of respondents agreeing with the statement “Climate change has an impact on the agricultural policies in my country/region” is in Nordic countries (avg. score of 4). While for the

second statement “Climate change has an impact on the agricultural practices in my country/region” the highest score is given in Continental countries (avg. score 4). The lowest agreement for both is in Oceanic cluster (see Figure 11).

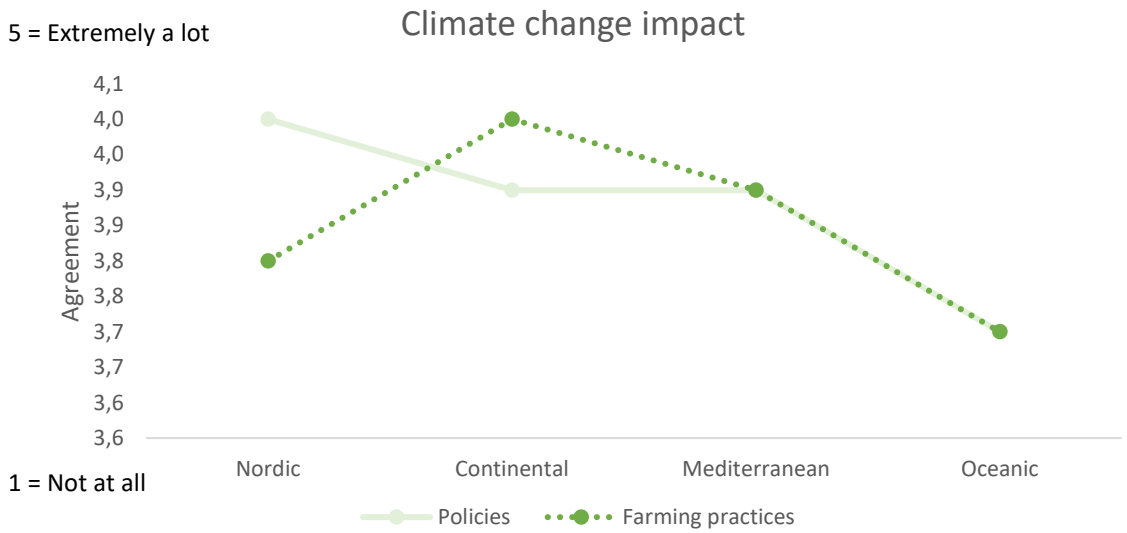

Figure 10: The level of agreement with statements “Climate change has an impact on the agricultural policies in my country/region” and “Climate change has an impact on the agricultural practices in my country/region” in four climatic clusters on a scale of 1 to 5, where 5 represents strong agreement “extremely a lot” and 1 disagreement “not at all”

Further, the respondents strongly agree that they expect climate change to have a greater impact on farming operations in their country/region in the following ten years (avg. score 4.5). The level of agreement is highest in the Mediterranean cluster with an average score of 4.6.

It is also agreed that advice for farmers has changed in the past ten years due to climate change, with an average score of 3.6. The respondents felt that the advice for farmers has changed predominantly due to farming conditions, policy and regulation changes, and new technologies being used. Among “other” reasons are mentioned e.g. certification requirements and carbon footprint calculations and higher awareness on environmental aspects. There are no notable differences between the climatic clusters on this aspect.

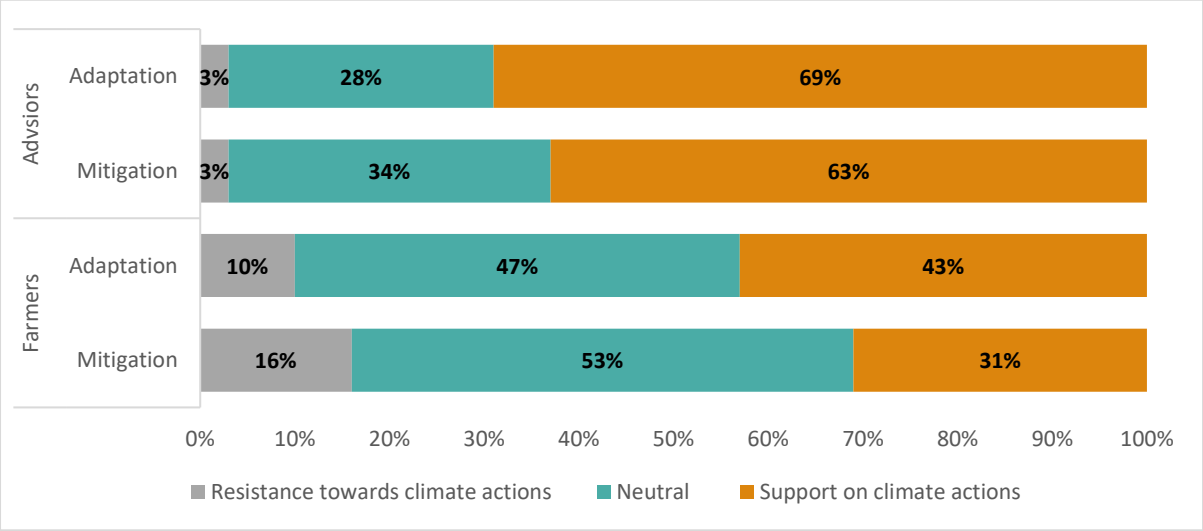

Figure 11: The general attitude of advisors and farmers, as perceived by the respondents, towards climate change mitigation and adaptation

Over half of the participants describe the general attitude of farmers in their country/region towards actions on climate change mitigation as neutral, with 31 % supportive and 16 % resistant to climate actions as presented in the Figure 12 above. For adaption actions to climate change, support increases to 43 %, neutral to 47 %, and resistance decreases to 10 %.

The respondents, on average, feel that the general attitude of the majority of advisors in their country/region towards actions on climate change mitigation or adaptation is supportive of climate action, with resistance as low as 3 %.

4.3 Knowledge on climate change

4.3.1 Knowledge level and topics

Out of the respondents, 78 % feel they have a good to moderate knowledge of a range of climate change mitigation and adaptation actions applicable in their country/region. The majority (61 %) of the respondents, within their role, have been challenged with questions about climate change, which they could not answer. When asked how often they answered yes, 70 % finds that it happens not every month but multiple times a year. There are differences between countries as in four countries (CZ, FR, LU, SI) over 70 % indicate that there have been questions not able to be answered and in three countries (SK, LV, BE) over 50 % indicates that they have not been challenged with such questions. Some differences are also based on the climatic clusters where in Continental and Oceanic clusters have the highest share of 60 % or more who have been challenged.

51 % of respondents believe they need a good understanding of agricultural climate change issues to effectively address farmers' needs. The top three thematic areas that are most important according to respondents are: soil health and biodiversity (56 %), crops management (51 %) and water management (41 %). Once again, the different clusters do not show clear differences, but between countries the importance of thematic areas are selected with more variation. In countries like Finland, Latvia, Luxembourg and Greece animal husbandry related themes (i.e. grass, herd, or forage management) are generally scored higher compared to the general top three thematic areas. For Austria and Belgium energy management is among the top three thematic areas. Soil health and biodiversity seem to be the only thematic area which is scored in all countries over 30 % of importance.

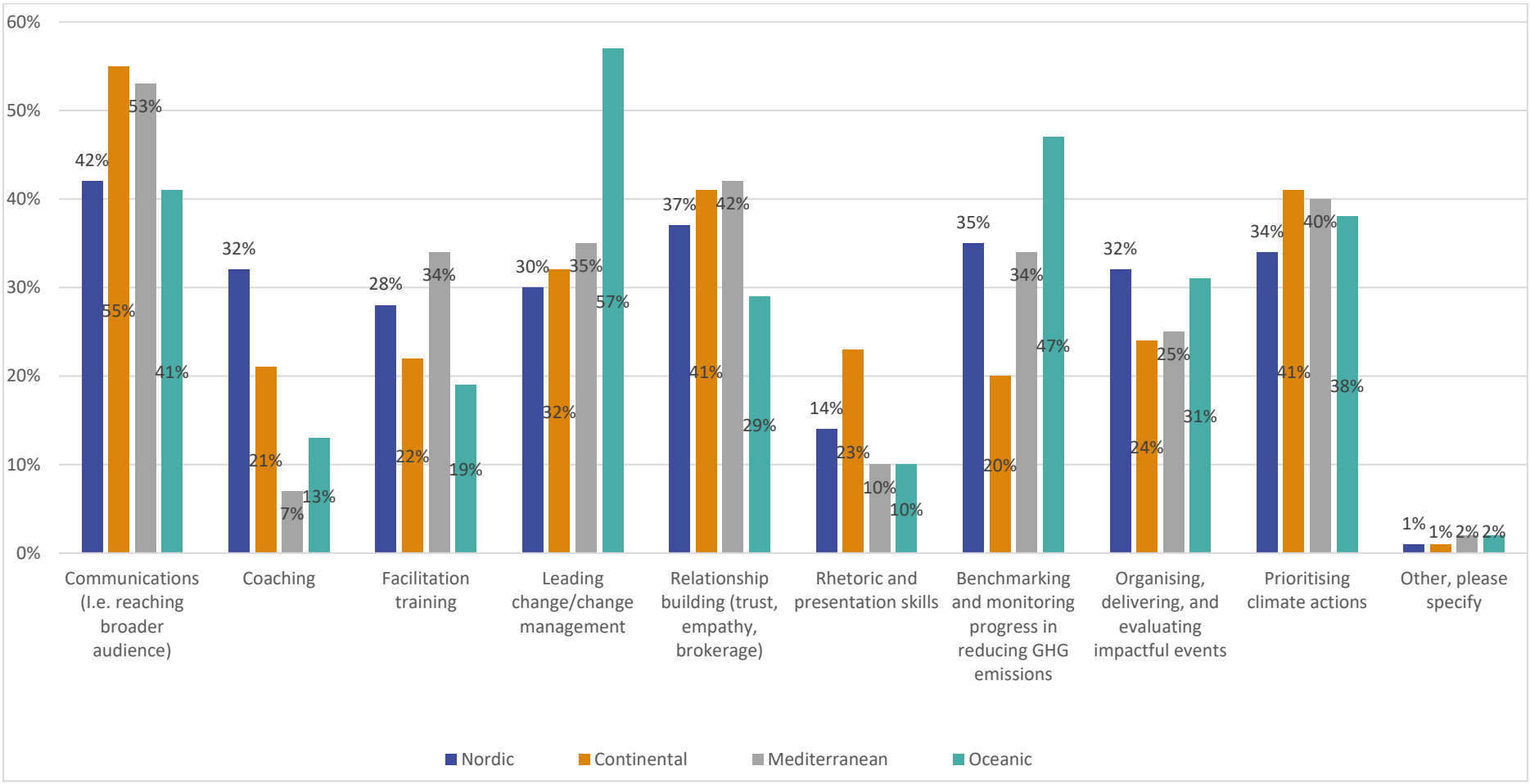

Figure 12: Three most important areas of knowledge from given methodological skills given between climatic clusters

Regarding methodological skills, the three most important areas of knowledge are linked to communication, i.e. reaching broader audience (49 %), leading change/change management (39 %) and prioritising climate actions (39 %). However, variation between climatic clusters is present with some differences in the top three selection (see Figure 13). For Oceanic and Nordic countries, benchmarking is in the top three and for Nordic, Continental and Mediterranean clusters relationship building is considered as second most important, instead of leading change.

Figure 13 below provides an overview of what are the current methods for staying up-to-date, and what would be the most preferred methods for doing so. The top three ways for keeping their climate-related knowledge up to date are independent study (56 %), following scientific publications (40 %) and learning with your team (39 %). In contrast, the top 3 preferred options are nationwide training (41 %), online training by international experts (40 %), and small group learning or cross-visits (34 %). In the Nordic and Mediterranean cluster, newsletters are an important current method for keeping up with knowledge, while videos/podcasts are more popular in the Continental and Oceanic clusters. Regarding what is considered as preferred methods, nationwide training is common for all clusters, but "learning within your own working team" is selected in the Nordic cluster instead of small-group learning, and in the Oceanic cluster there is a tie with online trainings.

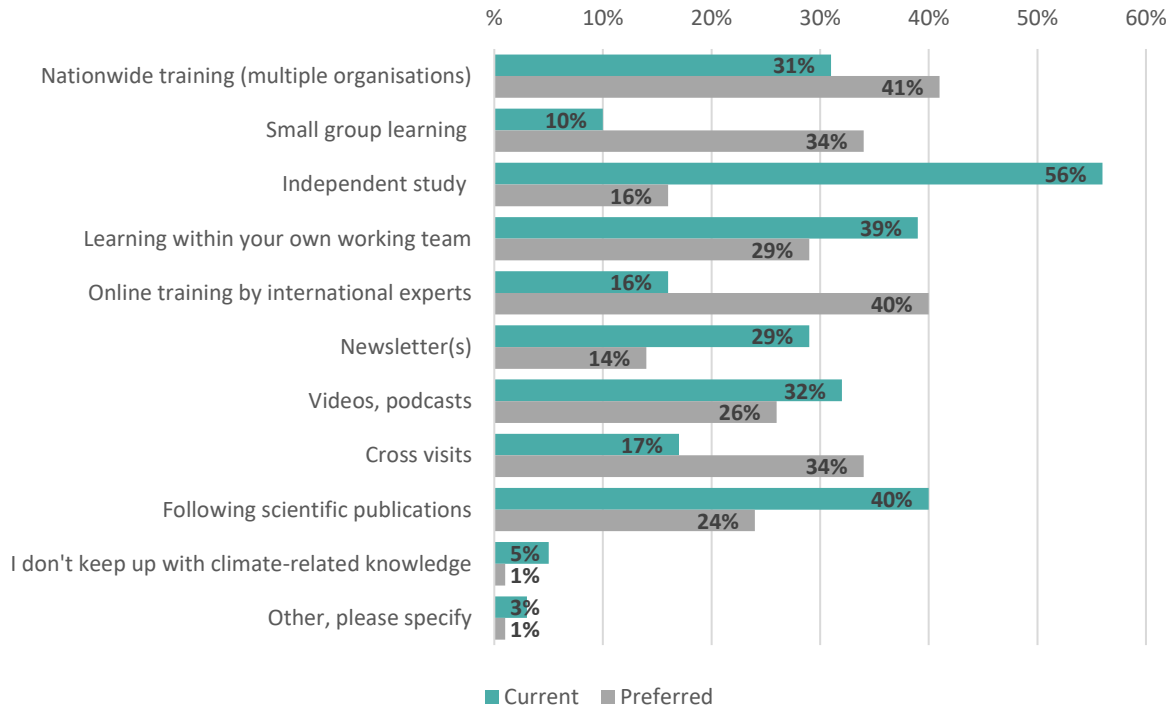

Figure 13: The current and preferred methods for respondents to keep their climate-related knowledge up-to-date

4.3.2 Knowledge on specific tools, methods and approaches

GHG farm audit/assessment tools

When the respondents were asked if they had used the GHG farm audit/measurement tools in Table 3, 63 % have not used them, and 6 % have used other tools. The two most frequently mentioned tools, which were not in the selection of tools, are AgNav and LfL Klima-Check. The two most frequently selected tools from the provided list are CAP2ER (9 %) from France, followed by Farm Carbon Calculator (8 %) from UK. There were some minor differences when split into the sector clusters in relation to the GHG farm audit/measurement tools. In the dairy and agroforestry

sectors just under half of the respondents in these areas had used GHG farm audit/measurement tools, whereas the in the pig/poultry sector only a third of the respondents had used them.

Table 3: Overview of a selection of GHG assessment tools, and use of those tools by the respondents

Tool name	Percent
Agrecalc	4 %
Air.e	0 %
Biocode	2 %
BOVID CO2	0 %
CAP2ER	9 %
CAP2ER Grandes cultures (Crops)	2 %
Carbon footprint of a farm. Scope 1 + 2	4 %
Carbon-Extract	1 %
CONVIS Sustainability Assessment Tool	1 %
Cool Farm Tool	7 %
DECiDE	1 %
Digital tools for soil and air quality; digital tool for monitoring of pests	7 %
EkonMOD	0 %
Farm Carbon Calculator	8 %
FaST-Navigator	1 %
GEEP and CAP2ER	1 %
GES&VIT	0 %
Klimrek	1 %
KLIR = Klimaschonende und Ressourceneffiziente Milchproduktion	0 %
Kringloopwijzer (ANCA)	2 %
None of the tools	63 %
Other, please specify	6 %

Climate Smart Farming technical tools

According to the responses, only 6 % of respondents have knowledge of repositories for climate smart farming technical tools. The proportion of advisors who answered that they knew of such tools vary between countries from 0 to 18 %.

Table 4: Proportion of advisors in each country who know climate smart farming technical tools

Countries with no advisor answering that they know technical tools in the field of CSF	CZ, DK, EE, EL, HU, LT, PL, RS, SI, SE
Countries with 1-10 % of advisors answering that they know technical tools in the field of CSF	ATT, BE, BG, HR, FI, DE, LV, PT, SK, ES
Country 10 % - 20 % of advisors answering that they know technical tools in the field of CSF	FR, IE, IT, LU, NL, RO, UK

Respondents were also asked to provide links to the CSF technical tools. The total number of the links (or names of websites) given is 97. The highest number is from France with 30 links followed by Germany, United Kingdom, and Slovakia where more than 10 links were provided from each country. Many of the links were given in national languages, and they often refer to institutional national websites (such as websites of advisory services or applied agricultural research institutes) or project websites (both regional and European), and less to pages describing well defined "tools". Some respondents also refer to advisory services from another country, for example, the Irish Agriculture and food development authority Teagasc website was mentioned by a Slovakian advisor, and the French technical institute Arvalis was mentioned by a Spanish advisor. One reference was made to an EU wide repository of good farming practices (Organic Farm Knowledge) and some respondents also referred to more general sources like YouTube.

Climate Smart Farming advisory methods

As a separate question, advisors were asked about their knowledge on Climate Smart Farming repositories for advisory methods.

According to the answers, 6,5 % of the respondents have knowledge of repositories for Climate Smart Farming advisory methods. This is close to the same proportion as those who know about repositories of CSF technical tools. Compared to the previous question on the technical advisory methods, respondents from more countries answered they know these kinds of repositories even if the total number was lower. The percentage of advisors who reported being aware of these repositories ranges from 0 % to 35 % among respondents from the same country (see Table 5).

Table 5. Proportion of advisors in each country that know CSF advisory method repositories.

Countries with no advisors mentioned CSF advisory methods repository	CZ, DK, EL
Countries with 1-10 % advisors mentioned CSF advisory methods repository	ATT, BE, BG, HR, EE, FI, FR, DE, IE, LV, LT, LU, NL, PL, RO, RS, SK, ES, SE
Countries with 10 % - 20 % mentioned CSF advisory methods repository	IT, PT, SI, UK
Countries up to 20 % mentioned CSF advisory methods repository	HU

Difference between climatic clusters is not noticed, however higher score from the general averages for some countries especially for Hungary (35 %), Portugal (16 %) and Slovenia (15 %). This is noteworthy, since respondents from these countries indicated having no or little knowledge about CSF technical tools.

Respondents were asked to give link to the CSF advisory methods repositories. The total number of the links (or websites names) given is 74. The maximum number of repositories is mentioned by UK (9), followed by FR (8) and HU, PT and BE (5 each). For a number of countries, respondents indicated having knowledge, but did not provide a link (CZ, DK, EE, EL, IE, RO, and RS).

Similarly, to the technical tool repositories, the links were given in national languages and to national resources. Also, similar characteristics of the repositories are noticed with CSF tools, i.e.:

- Nearly half (34) of the links reported are not repositories but institutional national websites, advisory services websites, or training centres which provide resources and courses on agriculture, and specifically on CSF. Some of them focus more on proposing good practices for reducing the environmental footprint, or on diagnostic tools (carbon calculator, balance between investment and profitability of changing practices).
- The other half (31) of the links mainly concern recent European projects, either finalised (Agrispin, Nefertiti, Farmdemo, Fairshare) or still in progress (Farmbook, I2connect), or European and international organisations (CECRA, FAO). These websites provide interesting resources on advisory methods, even if there are not specifically focused on CSF and those websites cannot be considered as repositories for advisory methods (with some exceptions like Fairshare).
- Of the 9 remaining links (9), 3 seem to propose actual online toolboxes with a range of tools, methods and/or best practices: Goprofor, Seedsforchange, IAFlibrary (some were cited several times). The others are rather guides on facilitating methods (MSP guide, facilitator guide) or survey analyses on learning preferences of agricultural stakeholders and how to influence farmers' decision making.

4.4 Beliefs and attitudes towards climate issues

4.4.1 Motivations to act upon climate change

The results show that in general the respondents are motivated to act upon climate change. Only in 8 countries more than 10 % of the respondents disagree on the statement "I am motivated to act upon climate change' (see Figure 14). These countries are Poland, Croatia, Czechia, Romania, Belgium, Estonia, Lithuania, and Latvia. Moreover, the data show that the motivations to act upon climate change are rather autonomous (feeling in control of one's behaviour) compared to controlled (feeling pressure to act). For example, most respondents disagree with the statement that they are not motivated at all (82 %) or feel pressured to act upon climate change (65 %). Most respondents feel motivated because they want to be recognized as a good advisor (84 %) or want to stay qualified (83 %). And most importantly, most respondents are motivated to act upon climate change because they enjoy using and sharing new knowledge to support farmers (89 %) (see Figure 15).

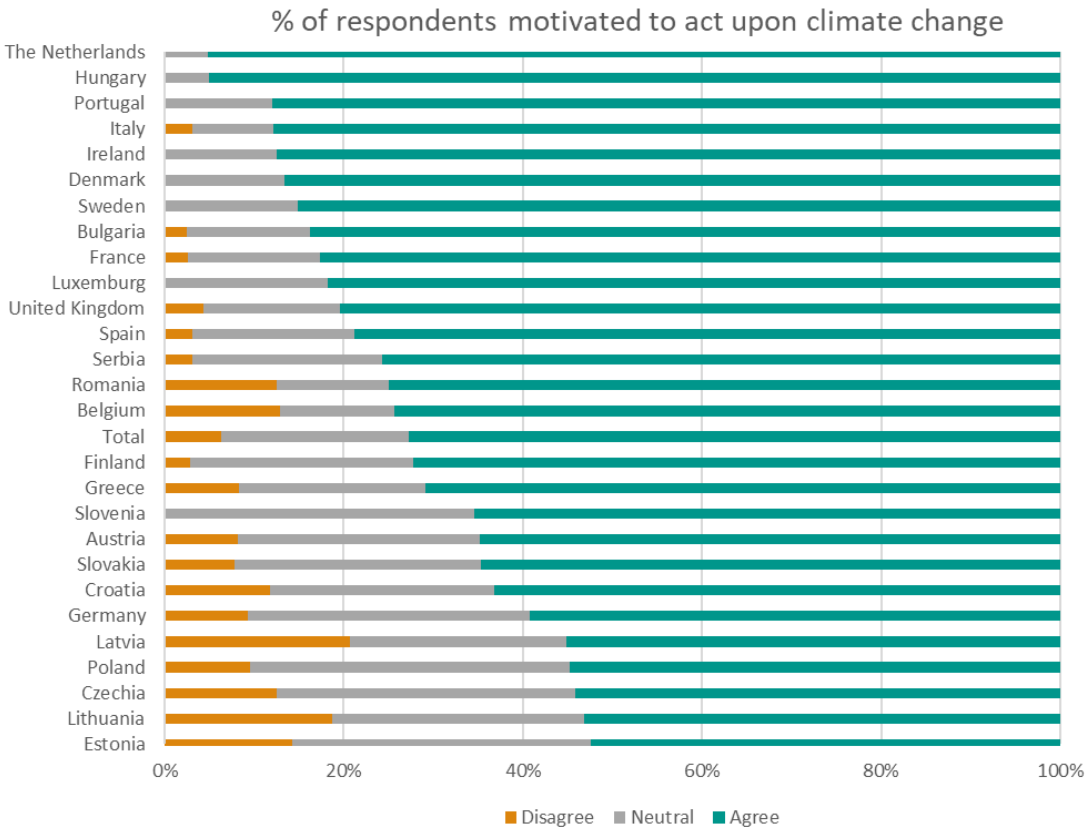

Figure 14: % of respondents motivated to act upon climate change

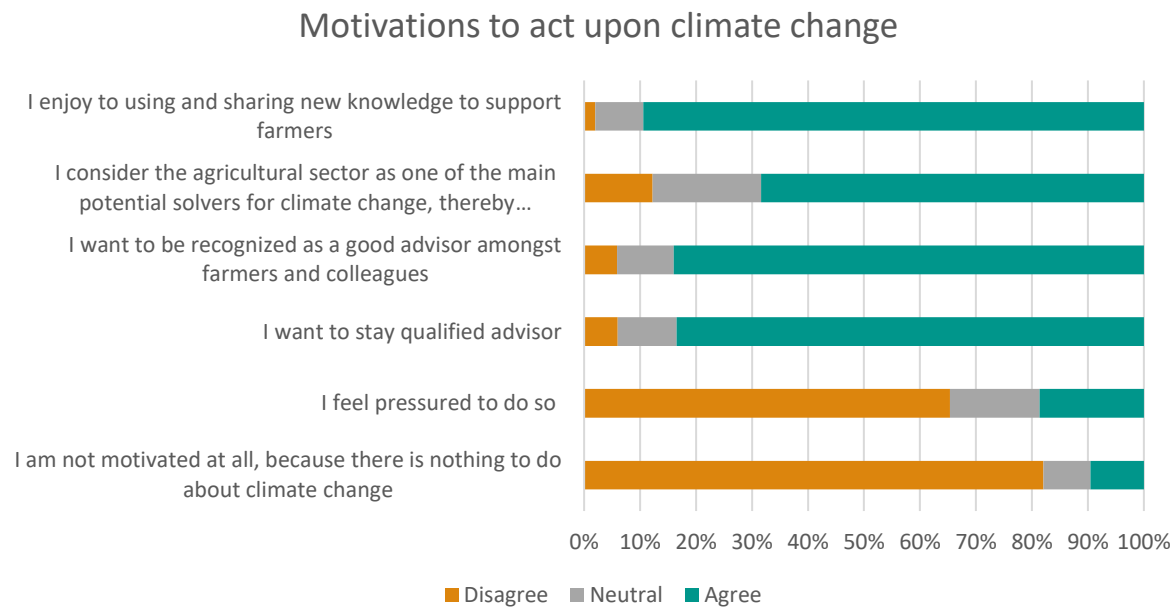

Figure 15: % of respondents disagreeing, agreeing or having a neutral opinion on different types of motivation to act upon climate change

In addition to the preset statements on the motivation to act upon climate change, the respondents mentioned the following types of motivation in an open text box[1]:

- Concerns on the impact of climate change on the environment, agriculture and future generations.
- Personal commitments, and the importance of individual actions and responsibility, to contribute to act upon climate change.
- The role of agriculture in contributing to and mitigating climate change. They make a call for sustainable farming practices and the need to adapt to changing climate conditions.
- The desire for global cooperation and awareness regarding climate change and the importance of collective efforts to address this global challenge.
- The need for support, incentives, and changes in regulations and financial implications to encourage sustainable practices.
- The aim to raise awareness about climate change and sustainable practices through better communication and education, both within the agricultural community and the general public.
- An emphasis on the importance of innovation and practical solutions in addressing climate change, including the adoption of new agricultural practices and technologies.
- The need for more accurate information and a more balanced perspective in the portrayal of the agricultural sector in media.
- Some statements reflect regional and cultural perspectives, emphasizing the unique challenges and opportunities in specific areas.

4.4.2 Barriers to act upon climate change

In Figure 16 is presented the shares of responses regarding what prevents the respondents from acting upon climate change. In 15 countries more than 25 % of the respondents agree that they struggle to invest time in it. There is an overall agreement that acting upon climate change would be an added value for their job and most respondents agree that they are interested in the subject (76 %). In 17 countries, more than 20 % of the respondents agree that the lack of information prevents them to act upon climate change. In addition, in 21 countries, more than 20 % of the respondents agrees that they do know that information exists, but that they are not sure where to start or how to use it in practice.

[1] Statements are translated using ChatGPT

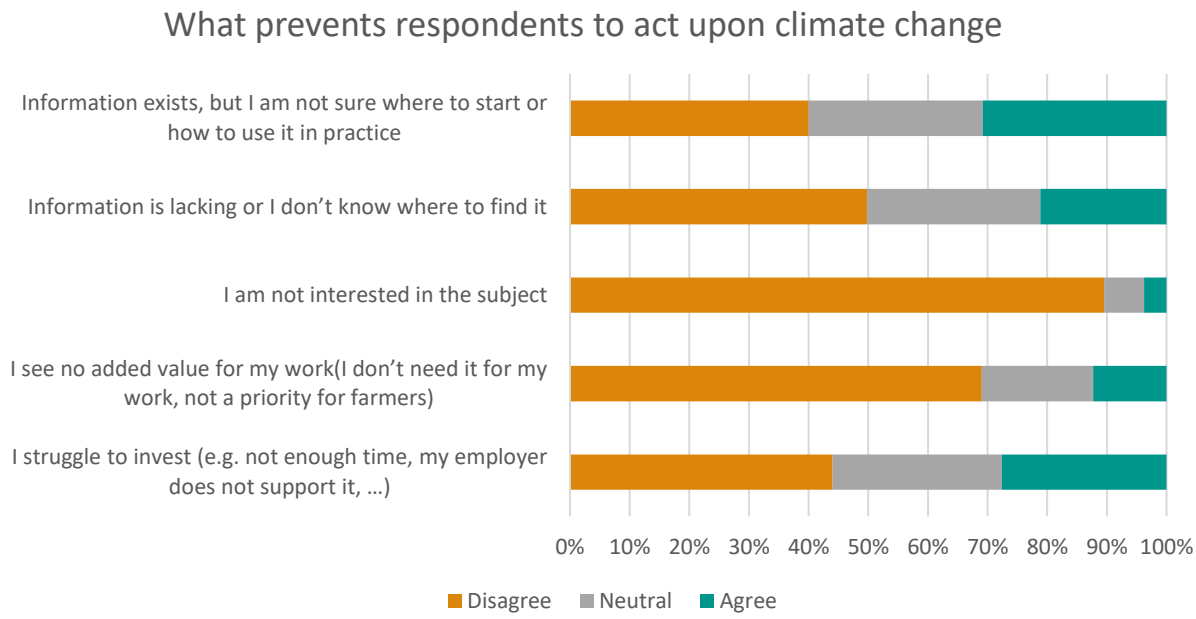

Figure 16: % of respondents disagreeing, agreeing, or having a neutral opinion on what prevents them to act upon climate change

In addition, respondents mentioned the following additional barriers in an open text box:

- The complexity of the issue, which translates in a lack of unified approaches, the lack of clear (agricultural) policy and challenges in disseminating and consolidating information, often involving conflicting information.
- Communication in the context of advising and engaging with farmers.
- Financial constraints in general. Often farmers perceive climate actions as an additional cost compared to other economic challenges they have.
- Resistance to change and the concern about the portrayal of agriculture as a major contributor to climate change without sufficient consideration of other industries.
- The lack of time and resources.

4.4.3 Increase the motivation to act upon climate change

From the preset options (see Figure 17) to increase the motivation to act upon climate change, the respondents mostly point-out the importance of increased cooperation between different actor types (76 % of the total number of respondents and in each country more than 52 %) and the increased support for the practical implementation of climate actions (70 % of the total number of respondents and in each country more than 50 %) (see Figure 18). In addition, half of the respondents (52 %) think that political leadership towards climate action could increase the motivation to act upon climate change. However, there is quite a big difference between Sweden, Estonia and Slovenia (only 30- 35 % of the respondents agree) and Hungary, Austria, Ireland, The Netherlands and Portugal (more than 70 % agrees) (see Figure 18). Regarding the importance of increased research on the topic, there are mixed opinions across countries. In Finland, Latvia, Romania, Italy, Croatia and Estonia more than 1/3 of the respondents believe that increased research could increase the motivation to act upon climate change. Some respondents believe that external factors like extreme weather conditions could increase the motivation, with the highest beliefs in Luxemburg, Austria, Slovenia, Germany and Sweden (more than 40 % of the respondents). Least belief is put in the use of standardized monitoring methods for greenhouse gas emissions (15 % of the overall number of respondents), however in some countries, quite a substantial share of

the respondents believe it could motivate to act upon climate change: Italy (30%), Ireland (42%), United Kingdom (46%).

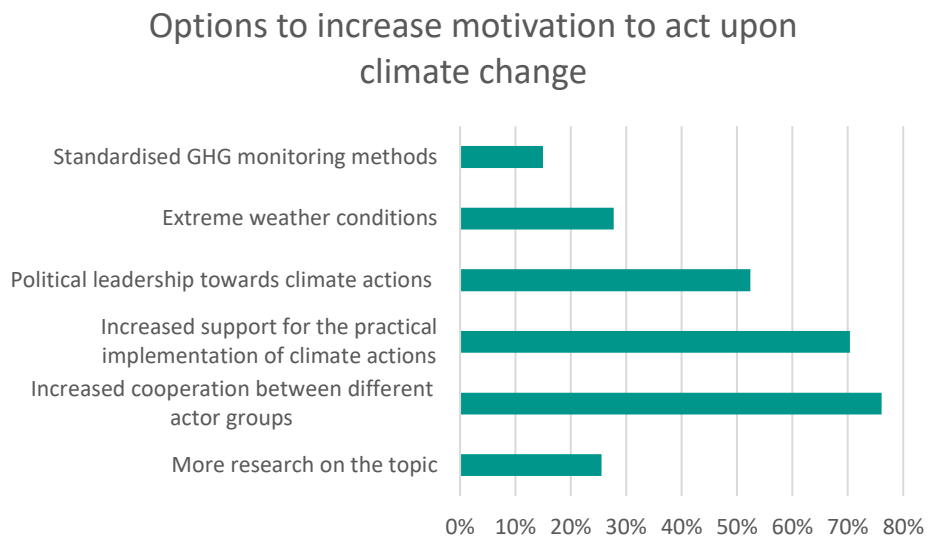

Figure 17: % of all respondents selecting options to increase the motivations to act upon climate change

In addition, respondents made the following suggestions in an open text box:

- The need for an open discussion within the supply chain and with the whole community, e.g. by discussing delivery conditions of agricultural product buyers, monetary rewards for farmers' efforts.
- Promoting alternative production systems (e.g. by providing education on the long-term financial benefits), such as conservation agriculture, Training livestock farmers in new, environmentally, socially, and economically efficient production systems.
- Make it economically viable for farmers.
- Projects where farms serve as experimental fields, and receive economic support for it.

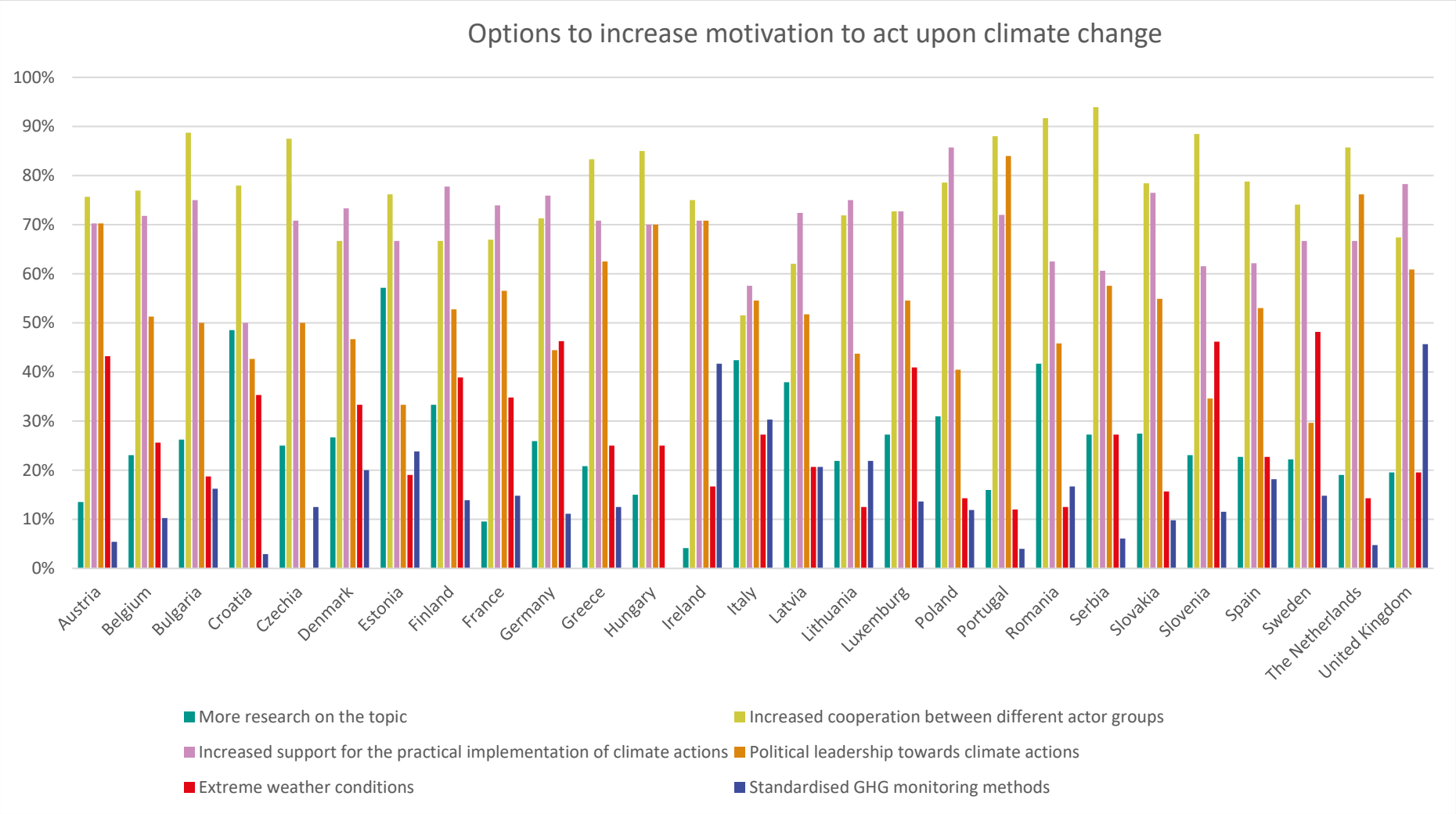

Figure 18: % of respondent's selection options to increase the motivations to act upon climate change per country

4.4.4 Barriers for implementing more climate change mitigation or adaptation actions at farm level

The most highlighted barriers for implementing climate change mitigation and adaptation actions at farm levels are economic and financial barriers (75 % of the respondents selected this as a barrier, with in each country more than 50 % of the respondents) (see Figure 19). As second and third most important barriers, the lack of training of farmers/advisors (50 %) and the lack of knowledge (49 %) where selected by the respondents. Regulation is perceived as a barrier in by more than 33 % of the respondents in 8 countries: Hungary (35 %), Romania (42 %), Poland (45 %), Germany (46 %), Belgium (49 %), Denmark (53 %), Slovenia (54 %), and The Netherlands (67 %). Technical barriers are reported as important by more than 33% of the respondents in Sweden (33 %), Spain (35 %), Luxemburg (36 %), Poland (40 %), France (44 %), United Kingdom (46 %). Besides this, in some countries more than 33 % of the respondents agree that negative attitudes towards climate actions are a barrier for implementing actions at farm level: Estonia (33 %), Austria (35 %), Greece, (38 %), Finland (39 %), Hungary (40 %), Czechia (42 %), Ireland (42 %), Italy (45 %), Luxemburg (50 %). Only 1 % of all respondents agreed that there are no barriers to implement actions at farm level.

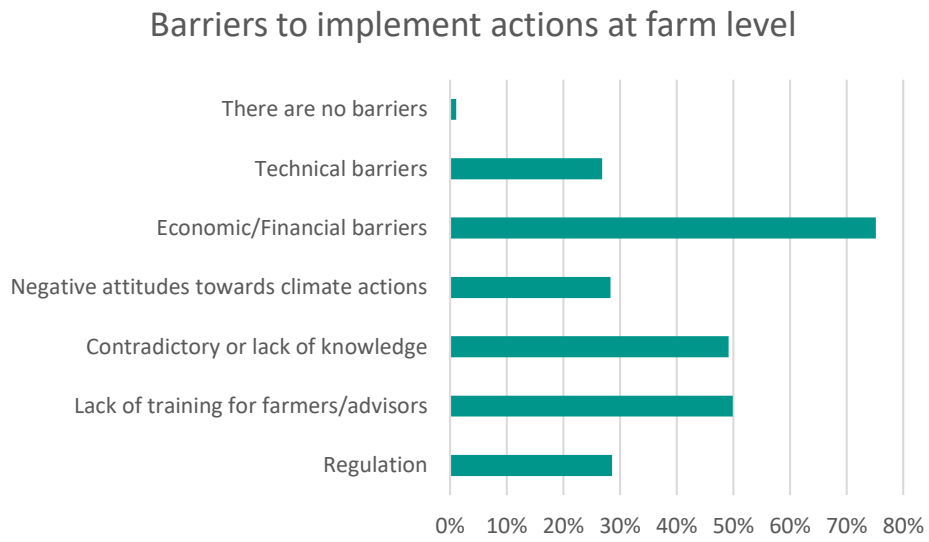

Figure 19: % of all respondents selecting barriers to implement actions at farm level

Self-reported barriers for implementing adaptation and mitigation actions at farms are related to:

- Environmental and regulatory barriers, such as the diversity of regulations, the lack of political framework, specific regional conditions.
- Financial and resource barriers, such the lack of financial incentives and rewarding systems, the fact that effects of actions are only visible in the long term, lack of human resources.
- Social and behavioural barriers, such as low demand from the market, lack of pioneers, social attitude towards climate action.
- Political barriers, such as lack of political support, lack of political consensus, poor federal politics, war.
- Communication and knowledge barriers, such as weak communication between administrations and farmers, lack of digital literacy and required skills, lack of research on practical adaptation and mitigation measures.

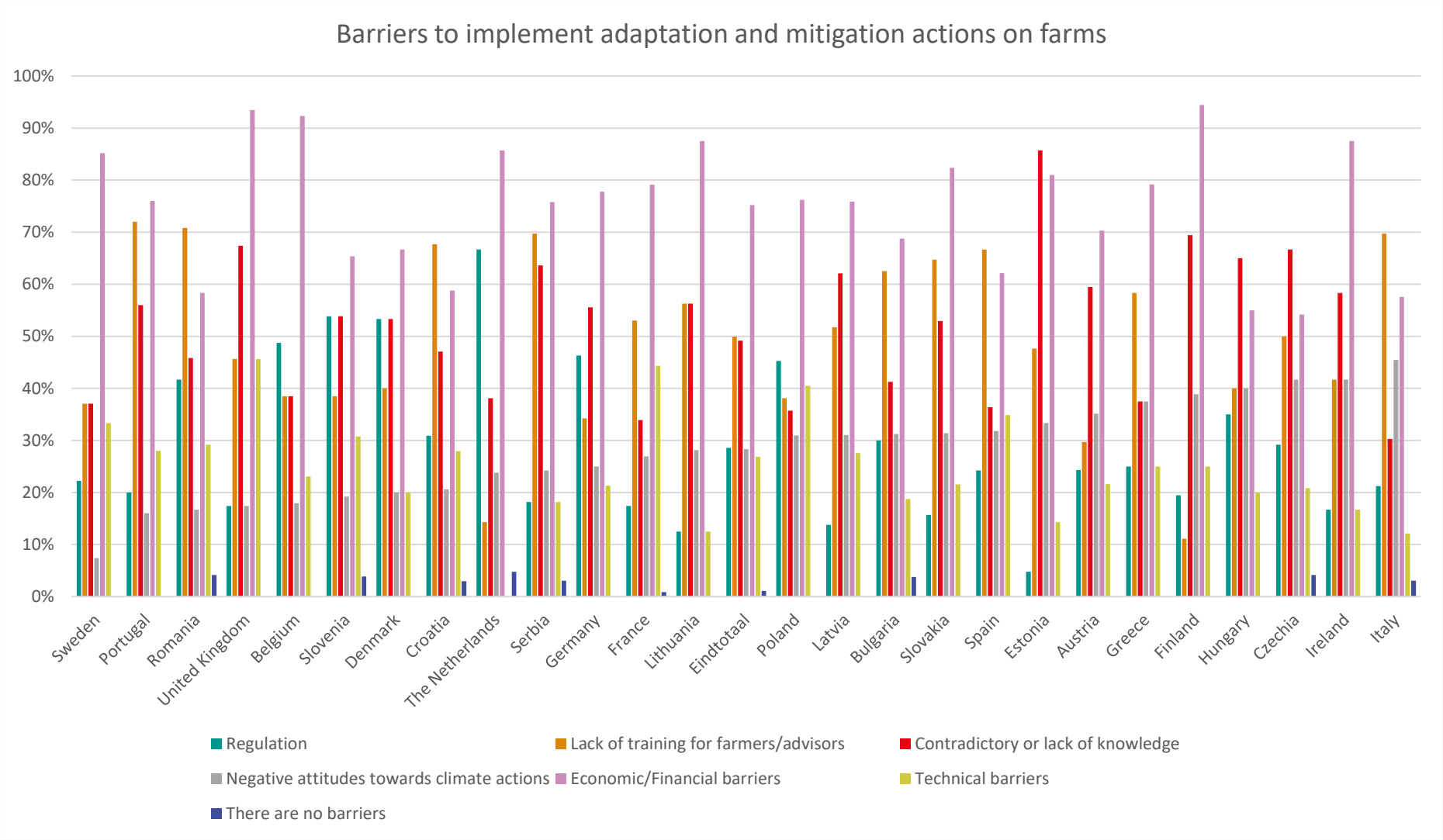

Figure 20: % of respondents per country selecting barriers to implement actions at farm level

5 Analysis

In this section, we will reflect upon the results from each section separately.

5.1 Socio-demographic characteristics

The socio-demographic profiles show a high variation between respondents. The answers are collected from all age groups, all sectors and from multiple scales of professional experience. Different organisation types and roles are also presented among the respondents with near-equal division between female and male respondents. Only very few responses were obtained from the youngest age group (less than 21 years old), but this can be linked to the fact that in general there are few advisors in that age group. The geographical coverage is characterised by a significant dominance of French and German respondents, which cover one fifth of all the answers. This should be kept in mind when proposing general conclusions. Even though it did not appear that results changed substantially upon exclusion of those responses from the data, the dominance might have some effect on individual questions. Recognising the disbalance in the share of responses from different countries underlines the importance of further reflection on these more general findings, to understand the situation and context more accurately at the level of individual countries or regions.

Respondent characteristics

The largest group, the most typical respondent (female, age 31-40, <5 year of experience, public organisation, advisor, expertise in arable crops) covered only 21 answers from the total of 1104. The main differences existed in age, agricultural sector in which they worked in, and years of experience. However, here should be noticed that the respondents were allowed to select multiple sectors they work with which is likely to increase variation between sectors.

Based on the 20 most common profiles of the respondents we can assume males have typically longer working experience and belong in higher age groups than females. Both genders were represented equally in same sectors (arable crops, beef and dairy), but again males were more frequently working in cooperative organisations than females, who more commonly were employed in the public sector. Despite the differences recognised between genders and age groups, strong assumptions should not be made based on any single socio-demographic aspect as the total number of representatives in 20 most common groups are small and thus does not suggest any of the characteristics being clearly dominant.

There appeared to be a discrepancy between the most common age groups and years of experience: while the most common age category was between 31 and 60, the most common groups in years of experience was very short (0-5 years) or very long (>20 years), which could suggest that it is not so common to be an advisor early on in the professional career. There are also notable age differences across the EU, as shown by differences in the pedo-climatic clusters. Overall, we had more young advisors in the Oceanic cluster, and older advisors in the Eastern part of Europe, covering both the Continental and Nordic clusters. This finding proposes that the average age of the advisors differs between countries and might be a relevant aspect to consider from the national perspective. It is worth nothing that having a high variation between ages and years of experiences in the advisory community can be valuable for boosting the peer-learning activities between advisors across Europe.

Differences between countries could also be seen in the types of organisations the respondents work in. Based on the results it can be assumed that the advisory services in Greece, Portugal, Bulgaria, Croatia, and

Latvia are provided primarily through only one kind of organisations, be it either private or public. This provides insights on how the advisory services are organised in each country and might impact on how the project activities should be organised in these different settings.

Agricultural sectors

The three most common agricultural sectors respondents work in are for all climatic clusters the same: arable crops, dairy cattle and beef cattle, however, there exists some variation between clusters in the total shares for each of these three sectors. For instance, in the Mediterranean cluster there is a higher proportion of horticulture, and in the Oceanic cluster animal husbandry (dairy, beef, sheep/goat) is more common than in other clusters. In the Nordic cluster, the three most common sectors are dominating. These results suggest that we can expect more varied needs for technical, sector-related support in other clusters than the Nordic. This is to some extent also an expected result, as it is known that the agricultural production possibilities are more limited in Nordic countries, with shorter growing seasons and smaller yearly heat sum. We can also assume that the results indicate which sectors are more active in relation to climate change related issues, since we assume that the respondents of the survey are in general more interested in climate issues.

5.2 Interaction with other stakeholders

The majority of respondents for the survey indicated their role as being an advisor. As a general conclusion for this section, it seems that the advisors in all parts of Europe are having at least some connections and are cooperating with other AKIS actors on the field of agriculture. However, there was some disbalance in the types of actors they interact and cooperate with. While it is obvious, and also expected, that the interaction with farmers and with other advisors is strong and quite regular, there was in some cases a total lack of interaction with other AKIS actors. So, there is space for improvement, and further consideration on how to strengthen certain interaction and cooperation. This is covered, at least to some extent, by the role of manager of advisors, where the overall amount of interaction with other stakeholder groups is higher, compared to advisors. This also appears to be in line with the responsibilities of a managerial role, which should include supporting the cooperation with other stakeholders and addressing the needs of advisors in different multi-actor forums. Similarly, the higher interaction between trainers and researchers was expected because of the need for up-to-date knowledge transfer expected to flow from researchers to trainers. Nevertheless, based on the relatively low interaction of advisors with media, agrifood-chain actors and public authorities it could be presumed that many advisors are not very active in multi-actor projects and development projects funded by national or European funds where such an interaction commonly occurs. This assumption should be further reflected upon at the national or regional level.

Based on the results of importance of stakeholders from the perspective of different roles (advisors, manager, trainer, other) in advisory services it seems that the different actors are seen very similarly in promoting climate change related issues no matter of the role of respondents. The level of interaction does not seem to have a clear connection on how the potential of promoting to climate change issues is seen. For example, the researchers are seen important, but they are not that much interacted. This is observable from the findings from the correlation analysis between the interaction with and importance of different stakeholder groups, suggesting that respondents do not find these two aspects strictly related. The overall correlation between interaction and importance is relatively low among all stakeholder groups which generally suggest that there is high variation within the answers. The results suggest that the correlations for other stakeholder groups could be useful to check at the country level, and to further reflect more accurately on potential mismatches between the importance of and frequency of interaction with certain stakeholders. This could help to further explain the reasons behind the high variation. Even if the

correlation analysis does not allow for drawing strong conclusions, it is worth to recognise that the perspectives on the importance of different stakeholder groups might strongly vary between countries.

For those who indicate high interaction but low importance, the reasons behind can be simply in the nature of the work but also that the respondent does not see progress in the climate actions even when they are regularly interacting with some of the stakeholders, and that for endorsing climate actions support from other stakeholders is needed. While the proportion of these weak correlations is relatively small, the more significant finding is concerning researchers and media actors. Those two groups are commonly seen important, but interaction is relatively low. This finding suggests that more attention should be paid to those two actor groups to speed-up the application of climate change actions or at least for increasing the cooperation and knowledge exchange with advisors. Significant differences between EU level findings and findings at climatic or GHG emission clusters could not be observed. But the closer look on the country level differences is worth to consider when planning for national activities. There are also some differences between the responses representing different sectors both with the interaction with other stakeholders and indications in importance level. While the differences are not very significant, the finding can suggest that for example politician/public authorities have a stronger role to play in some of the agricultural sectors (for example through subsidies).

Regarding activities considered as useful for promoting climate change actions, the respondents were relatively like-minded regarding important activities. Events and occasions where experiences can be discussed and shared with and between farmers are considered as the most efficient way to promote climate change related activities. With the least important activities noticeable differences can be seen between some of the countries. This said, the low scores for “acting as innovation broker between different actors” in some countries is somehow unexpected, since this actually also represents a possibility to share and discuss with multiple actors. This could be because of unfamiliarity with the activity which is likely to be not that common within advisors. But it should be also considered if this is based on the actual experience and thus bringing together multi-actor groups are not seen as a very efficient way to promote climate actions. This could be further reflected upon at the national or regional level.

The differences between countries in impactful activities is important to recognise when planning the national activities. The country context and perhaps the common practices play a significant role in promoting some specific activities. For some countries printed media can be very impactful, for other it is considered with low value of impact. Also, the common practices between different stakeholders are likely to have impact on the activities found most effective.

5.3 Working context of advisors

The results suggest that the general attitude and perception towards climate change related topics are neutral or positive across project countries. It can be positively noted that the majority of the respondents don’t face opposition towards climate change and for those who do, it is not very regular (multiple times per year). However, the share of respondents indicating that they do face opposition is still relatively high and the advisors can be expected to face situations where they need to convince especially the farmers, but also the general public, to support climate actions. Differences between countries don’t seem to depend strongly on climatic conditions or emission levels, which might suggest that the knowledge on the topic, interaction between advisors with other stakeholders, or how climate change is discussed publicly, might better explain general attitudes towards climate change issues and actions.

The general attitude towards climate change is mainly favourable for promoting the actions.

The impacts of climate change in politics and farming practices were looked at the EU level and on the level of the climatic clusters. Differences between climatic clusters are relatively small, but it is interesting to note that in the Nordic countries the impact is estimated higher for politics than the farming practices and in the continental countries vice versa. This can be a sign of actions in politics which are perceived either precautionary or too late in relation to the practices in need to be implemented on the farms to react on climate change impacts. It can be also expected that in Nordic countries the impacts of climate change do not show yet as much as in Continental countries and that is why farming practices have not been changed as much. However, it seems that both policies and farming practices are impacted by climate change in all project countries and the impact in farming operations is expected to increase in the following ten years in high consensus. This is well in line with the general perception that the advisory services have changed in the past ten years mainly because of changed farming conditions and policy regulations. However, the level of agreement with the change in advice for farmers is generally lower in average than in the previous questions for policies and farming practices. This suggest that even the changes happen in policy level or practical level the advisory services are not always directly impacted. This could be explained by the implications of the changes which might be concentrated in specific farm practices and policies which does not concern all the farms and thus not need the new approaches from the advisory services. Another explanation could be that the changes are related to the knowledge needs which is not perceived as a need for change in advising but as a part of constant needs in advisory services. Overall, the differences in averages were not highly significant which leaves a lot of options for possible explanations.

Both advisors and farmers seem to have neutral or positive attitudes towards climate actions both in mitigation and adaptation. As a general conclusion, the farmers are estimated to have more resistance than advisors, and adaptation action are more supported than mitigation actions. The overall scores for resistance in both groups are low, but having more resistance for mitigation action from farmers is most likely explained through the benefits that farmers get from applying action, which are less clear for mitigation than for adaptation actions. Also, the rewarding mechanisms for mitigation actions are not commonly in place and reachable for farmers. Adaptation action can be clearly seen as a benefit if they increase the resistance of the farm in uncertain climatic conditions, but mitigation action might not benefit the farmer directly. Based on the results the advisors are highly supportive for climate action. However, here it is good to note that it is expected that the advisors who answered to the survey are interested in climate actions in general, so the result might not present representative conclusions covering the overall perception of advisors.

5.4 Knowledge on climate change

5.4.1 Knowledge level and topics

The results suggest that the respondents had a moderate to good level of knowledge on climate change mitigation and adaption actions applicable to their country. Half of the respondents felt that a good knowledge of climate change issues in agriculture is the required level of expertise they currently needed to answer farmer's needs, yet the majority of respondents have been challenged with questions about climate change, which they could not answer. This means there is a knowledge gap that needs to be addressed to increase the knowledge level to good or expert level and to reduce how often advisors are unable to answer questions related to climate change, as it currently happens not every month but multiple times a

year. If this can be reduced through increasing knowledge and capacity of the advisors for giving climate smart advice it should increase confidence the farmer has in the advice being given and in turn increase uptake. When split into the pedo-climatic cluster, advisors from oceanic and continental countries had been more challenged with questions about climate change that they were not able to answer. In oceanic countries the frequency of advisors not being able to answer a question related to climate change is higher, while for the Mediterranean countries the frequency is a bit lower than other climatic regions. It would be interesting to further examine whether this is due to the advisors in the Oceanic and Continental countries getting asked about climate change more and questions being more difficult or if it is due to a potential knowledge gap that leads to them occasionally not being able to answer climate change questions.

The top three thematic areas that were viewed as most important by respondents were: soil health and biodiversity, crops management and water management. These areas are highly relevant for the farmers as they affect their farms on a fundamental level. These areas also have major potential for reducing GHG on farm and national level. The variation between countries with different thematic areas in priority is mainly noticeable for countries where actions in animal sector seem to have stronger emphasis perhaps because of the seen potential or because of the local dominance of the sectors. Soil health and biodiversity is selected as only thematic area with high score in every country, so this theme seems to have shared potential in all countries and should be addressed with CSA activities.

Nearly half of the respondents felt the most important areas of knowledge for them from different methodological skills is communications. Currently more than half of the respondents are relying on independent study to keep up to date on climate- related knowledge, yet the top three preferred options selected would be nationwide training, online training by international experts, and small group learning or cross visits. This means there is a desire and need for how the ClimateSmartAdvisors is hoping to increase climate smart knowledge for advisors in the partner countries. Online training by international experts will be provided by the project thematic leaders, and small group learning will be facilitated through communities of practice. Differences are present between climatic clusters and preferred methods do vary in some level. However, by providing learning possibilities through CoPs, but also in cooperation with CFD-project's demo farms there is good base to support the desired learning methods.

Interestingly, almost two thirds of the respondents have not used the listed or other GHG farm audit/measurement tools. This means, based on the results, there is room for technical knowledge growth in this regard. The difference between responses representing actors from different sectors may show that different sectors might be facing different needs in relation to what they require from GHG farm audit/measurement tools. The results also suggest that using the GHG audit/measurement tools are not yet very commonly used by advisors.

5.4.2 Knowledge repositories

Knowledge repositories are not commonly known among advisors based on the results. Some possible explanations could be that the definition of advisory "tool" is not clear for many which was also suggested from the answers with variable types of repositories mentioned. There is also a chance that translations were not really accurate with the description or basically because of the reason that if they answered yes, they were asked to provide a link which they thought was too time consuming and not worth the effort. Furthermore, the result might be a sign that there are no tools which are developed and adapted to the local farming situation about climate smart farming or if they are, they are either not useful or well-known. If this is the case, it would be important to work with it during the project time, drawing on the positive experience from some other countries. More detailed knowledge would be interesting to gather especially from the countries where no tools or advisory methods is cited or only EU-project tools to understand better the reasons behind.

For the high number of indications for single tools like CAP2ER it should be acknowledged that the representativeness of the respondents from France is much higher than from other countries which creates bias in results to be interpreted further in geographical scale.

It is clear that there is confusion between advisory methods and tools, diagnostic tools, decision-support tools and best practice resources. The ClimateSmartAdvisors will enable progress to be made on these points, both in terms of learning to differentiate between the resources to be used according to need, and also in terms of publicising and disseminating these resources. On this point, the results underline the positive impact and influence of European projects.

5.5 Motivations and barriers for climate action

The motivations of the respondents to act upon climate change are relatively high. They seem not to feel pressured to act but are motivated to act because they want it themselves (e.g., they enjoy it, they want to stay a qualified advisor). This is important because it will more likely increase the quality of the actions that they will take and thus also the advice that they provide. However, this high number of motivated respondents might be biased by the topic of the survey, since it will most likely attract advisors interested in and motivated to act upon climate change to participate. It would be interesting to discuss in each country, whether these results are representative for all advisors. In the countries where there is still a group of advisors not internally motivated to act upon climate change, this might need some attention to increase the quality of climate advice provided and should be addressed in the national level.

Urge for professional success is among the main motivation factors.

Barriers for advisors to act upon climate change are often related to disability to invest in it. In addition, a share of advisors does not seem to find information and/or know how to start implementing the information. Specifically for those two final reasons for not acting upon climate change, the activities in ClimateSmartAdvisors could support advisors.

Based on the answers provided by the participants the complexity of climate change, the lacking ability to show economic benefits for implementing climate action and not knowing how to deal with the resistance to change seem interesting topics for CoPs or to exchange about on EU level.

According to the respondents, their motivation to act upon climate change can be increased through increased cooperation between different actor types and increased support for the implementation of climate actions. The first aspect can be addressed in the work facilitated in WP6 of this project, which aims to set up interactions with the national AKIS. The need to have an open discussion with other actor types, such as supply chain actors and community, is also reflected in the open responses of the respondents. The support for implementation of climate actions, can be an interesting topic for CoPs, which could be fed through the work performed in Climate Farm Demo. In some countries, respondents have quite high hopes in standardized GHG monitoring systems to increase the motivation to act upon climate change. Those countries might as well consider setting up a CoP on this topic or a promising GHG monitoring system.

The respondents point to economic and financial barriers as the main factor influencing the implementation of adaptation and mitigation actions on farms. ClimateSmartAdvisors has a thematic leader focusing on rewarding mechanisms. This seems a hot topic and webinars organised on this theme might receive quite some interest from the advisors from all over Europe.

Quite some barriers mentioned go beyond the scope of ClimateSmartAdvisors, such as the regulatory and political barriers, the lack of market demand, the lack of research, etc. Based on the project activities, we can provide the recommendations and start first interactions, but we must be aware that we will most likely not have a major impact on those aspects during the lifetime of the project.

6 Recommendations

The survey findings set the base for understanding the current context for climate smart advisory services in the ClimateSmartAdvisors countries. While the project is active at the national and European level to endorse support for agricultural advisors in promoting climate actions, the results are useful for evaluating the possible change during the project. The results are encouraged to be used in planning both national activities in each country and at European level for shared project activities. Table 6 provides an overview of recommendations and ideas for further use.

Table 6: Recommendation and ideas for further use of the survey results

Project activity	Applicable at national level	Applicable at EU level
Recognising the characteristics of CSAs	√	√
Identifying the needs of CSAs	√	√
National stakeholder analysis to Identify actors important to engage with important for CS-AKIS networks	√	
Identifying practical steps to support advisors in promoting climate actions	√	√
To take advantage of the experience and skills of the CSAs	√	√
Address barriers and support motivation factors as part of the CoP activities.	√	
Discuss the representativeness of the survey results.	√	√
Reflections with local actions groups, farmers, national rural networks of the results	√	
Selecting or prioritising key areas and objectives for CoPs – shaping the annual plans	√	
Providing guideline for setting up a successful CoPs		√
Identifying and prioritising the training and support for CSAs	√	√
Initiating more in-depth focus group discussions on specific topics	√	√
Planning for public training and webinar topics		√
TLs to identify needs and target their technical advice		√
Planning the stakeholder approaches and promoting CS-AKIS activities	√	√
Understanding the regional differences	√ (in countries where regional division between answers appears)	√
Building connections and taking advantage of the peer-learning between advisors based on their socio-demographic characteristics	√	√
Planning impactful communication practices	√	√
Motivating advisors with creating sense of European community		√
Recognising potential topics for CoDies	√	√
Reflection of the results with other projects, research, policies	√	√

Further research, in-depth focus group analysis or further quantitative analysis could provide better understanding of the reasons behind the responses. Some further topics to examine could be following:

- Interaction: to compare the results with the activity of the advisors in multi-actor projects and development projects funded by national or European funds.
- In countries where the opposition towards climate change actions is indicated higher compared to other countries, it could be relevant to try to understand the reasons behind and how the advisors could be better supported in communication and leading the change.

- Reflecting motivations, barriers and drivers to the national AKIS structure and functioning as described in other projects (ProAKIS, i2connect, ModernAKIS) to see if there are connections between country level results and their AKIS structure.

7 Conclusions

The results of the survey provide a general overview of the state-of play in each of the partner countries, but keeping in mind that they most likely represent the opinions of climate-motivated advisors. Most countries provided a relatively low number of answers, except for a few countries that gave significantly more responses. Recognising the limitations and possible biases, as a general conclusion it seems that the overall averages rarely represent all countries, showing clear variation for some aspects between climatic areas, and even more pronounced, between countries. As there might be a need for grouping the advisors based on their different characteristics as part of the ClimateSmartAdvisors activities, the results suggest that the grouping could be considered based on the years of experience or pedo-climatic areas depending on the reasons for the grouping. However, strong assumptions between these groups should be avoided.

Grouping the advisors based on survey results should be carefully considered.

There are multiple aspects that require further analysis to understand the actual reasons behind the results and come to stronger conclusions. Among these are to understand what the reasons are that some of the stakeholder groups are valued important or not, and if advisors consider it important to increase the interaction with stakeholders with whom there currently is not much interaction with.

The activities planned as a part of ClimateSmartAdvisors can be well designed to support the needs and desires of the advisors recognised from the results. It seems that for example the current learning methods and desired ones are not well aligned and could be supported better. The knowledge repositories are also not really known, and this issue should be addressed with recognising the available repositories and making the ones built as a part of the project activities more available and known among advisors.

For gaining better understanding of the relevance of the findings, further dialogue about the results and how representative those can be considered would be beneficial both at European and regional levels. Also, further analyses and reflections at the national level are needed as an addition to the results presented in this Deliverable 1.1 for a better understanding of the local needs. Nevertheless, the results presented here provide valuable handles and guidelines for common European level actions in ClimateSmartAdvisors.

ANNEX 1

Climate Smart Advisors

Welcome to the Climate Smart Advisors survey! The estimated time to complete this questionnaire is 20-30 minutes. If you would like a summary copy of the findings of this study please indicate at the end of the questionnaire.

ABOUT THE STUDY

Participant Information

Before you start it is important for you to understand why the survey is being undertaken, and what it will involve. Please take time to read the following information.

The purpose of the study?

You are being invited to take part in a study about the state-of-play of climate smart advisory services across Europe. The survey consists of 4 main sections. In the first section, we collect general (socio-demographic and professional) information about you as a participant. In the second section, we gather information on your interaction with other actors in relation to climate change. The third section is to explore current knowledge levels around climate change and gauge for knowledge/training needs. Finally, the fourth section, the focus is on current beliefs and attitudes around climate change, and motivations, drivers and barriers for taking climate change actions, both on a personal and regional/national level. This study is being led by the Association of ProAgria Centres from Finland, ILVO from Belgium, Teagasc from Ireland, and Idele from France. The survey is part of the activities of the ClimateSmartAdvisors project funded by the European Union funding programme Horizon Europe under the grant decision number 101084179.

Why have you been invited to take part?

You have been invited to participate as you are an advisor or employed in the provision of Advisory Services to farmers. Your insights and views can help shape future training and development opportunities for EU Advisors.

Participation

Participation in this study is voluntary. You can withdraw from the survey and stop answering questions at any time and you do not have to provide a reason why.

Will my participation be kept confidential?

Yes. Personal data (name and email) that you may provide will be kept confidential and stored securely. Any personal data you provide will be held for the duration of the project (ending 2030). Your name will not be related to your answers which will be coded. All information you provide will be kept confidential, anonymous and treated according to the EU regulations on personal data ownership. Only anonymised and aggregated data will be used for analysis and in any type of documentation, reports or publications concerning this study.

How do I agree to take part

All you need to do is complete the consent tick box below.

1. I have read and understood the above “Information for participants”, and I have been given the opportunity to save / print this information. I have been informed of the nature of the study, its purpose and what is expected of me.

Yes

2. I understand that participation in the study is voluntary and that I can withdraw from the study at any time without giving a reason for this decision and without this having any influence on my further involvement in the study.

Yes

3. I agree to participate in the study

Yes

No

GENERAL PARTICIPANT INFORMATION

Question type: Dropdown selection

4. **Country**

Austria

Belgium

Bulgaria

Croatia

Cyprus

Czechia

Denmark

Estonia

Finland

France

Germany

Greece

Hungary

Ireland

Italy

Latvia

Lithuania

Luxembourg

Malta

Netherlands

Poland

Portugal

Romania

Serbia

Slovakia

Slovenia

Spain

Sweden

United Kingdom

5. **Region (only for countries where relevant: Germany, not visible for others)**

Niedersachsen

Bremen

Hamburg

Schleswig-Holstein

Mecklenburg-Vorpommern

Nordrhein-Westfalen

Hessen

Sachsen-Anhalt

Berlin

Brandenburg

Rheinplan-Pfalz

Thüringen

Sachsen

Baden-Würtemberg

Bayern

Saarland

6. **Region (only for countries where relevant: Belgium, not visible for others)**

Wallonië

Vlaanderen

7. **Region (only for countries where relevant: Spain, not visible for others)**

Andalucía

Navarra

País Vasco

Otros

8. **Which of the following age groups do you belong to?**

<21 years

21-30 years

31 – 40 years

41 – 50 years

51 – 60 years

>60 years

9. **Gender**

Female

Male

Other

I do not want to say

10. **What is your current role in the provision of Advisory Services to farmers and growers?**

Question type: Multiselection

I am an advisor

I am a manager of advisor(s)

I am training advisors

Other, please specify

11. **What is the kind of organisation you are working for?**

Question type: Selection

Self-employed

Private consultancy company

Public organisation

Advisory service of an association/cooperative/organisation

Other, please specify

12. **Which agricultural sector do you primarily work with?**

Question type: Multiselection

Arable crops

Dairy cattle

Beef cattle

Sheep/goat

Pigs/poultry (non-ruminant animals)

Horticulture

Viticulture

Agroforestry

Other, please specify

13. **How many years of professional experience do you have in advisory services?**

0-5 years

6-10 years

11-15 years

16-20 years

>20 years

CONNECTION TO OTHER ACTORS

14. **How often do you interact with the following actors in your current position?**
Question type: Multiselection matrix

Never

From time to time (not more than once a month)

Very regularly (more than once a month)

Farmers

Advisors

Researchers

Politicians/public authorities

Agrifood chain actors

Banks/financial sector

Media

15. **How important do you consider the following actors to be in promoting climate actions in your country/region?**

Question type: Multiselection matrix

Not important at all

Important

Very important

Farmers

Advisors

Researchers

Politicians/public authorities

Agrifood chain actors

Banks/financial sector

Media

16. How important do you consider the following activities for promoting climate actions?

Question type: Multiselection matrix

Not important at all

Important

Very important

Public speaking (speaker with an audience)

Print/online media

Social media posting

Messaging with farmers (email/sms/etc.)

One-to-one farm visit or consultation

Farm demonstration events

Facilitation of farmer discussion groups

Formal training for farmers

Act as an innovation broker/ intermediary (e.g. bringing different stakeholders together)

17. Have you faced direct opposition towards climate change in your current job?

Yes

No

18. **If yes, how often?**

Less than once a year

Not every month but multiple times per year

Once a week or more but not every day

Every day

19. **If yes, by whom?**
    Question type: Multiselection

Farmer(s)

Advisor(s)

General public

Politician(s)

My boss

Other, please specify

KNOWLEDGE ON CLIMATE CHANGE ACTIONS, MEASURES AND ADVISORY METHODS

Please indicate your level of agreement with the following statements.

20. **Climate change has an impact on the agricultural policies in my country/region**

    Question type: Slider

I don't know

Not at all

Extremely a lot

21. **Climate change has an impact on farming practices in my country/region**
    Question type: Slider

I don't know

Not at all

Extremely a lot

22. **I expect climate change to have a greater impact on farming operations in my country/region in the following 10 years**

Question type: Slider

I don't know

Not at all

Extremely a lot

23. **Advice for farmers has changed in the past ten years as a result of climate change**
Question type: Slider

I don't know

Not at all

Extremely a lot

24. **If you think advice for farmers has changed, please indicate why?**

Question type: Multiselection

More climate related questions from farmers

Need for new education

Farming conditions have changed

Policy and regulations have changed

New technologies in use

Other, please specify

25. **How would you describe the general attitude of farmers in your country/region towards actions on climate change mitigation?**

All actions which contribute to lowering or stabilising greenhouse gas levels in the atmosphere (e.g. catch crops and green manure, renewable energy sources).

Question type: Selection

Resistance towards climate actions

Neutral

Support on climate actions

26. **How would you describe the general attitude of farmers in your country/region towards climate change adaptation?**

All actions which will help to adjust to the present and future impacts of climate change (e.g. using more climate-adaptive and resilient breeds, crops & cultivars).

Question type: Selection

Resistance towards climate actions

Neutral

Support on climate actions

27. **How would you describe the general attitude of advisors in your country/region towards climate change mitigation?**
    Question type: Selection

Resistance towards climate actions

Neutral

Support on climate actions

28. **How would you describe the general attitude of advisors in your country/region towards actions on climate change adaptation?**
    Question type: Selection

Resistance towards climate actions

Neutral

Support on climate actions

In the following questions, we ask your estimation of your knowledge level regarding topics related to climate change. Please provide your answers based on your best assessment.

29. **How familiar are you with a range of climate change mitigation actions applicable in your country/region?**
    Question type: Selection

I don't have any knowledge

Limited knowledge

Moderate knowledge

Good knowledge

Very good knowledge

30. **How familiar are you with a range of climate change adaptation actions applicable in your country/region?**
    Question type: Selection

I don't have any knowledge

Limited knowledge

Moderate knowledge

Good knowledge

Very good knowledge

31. **In your role, have you been challenged with questions about climate change which you were unable to answer?**

Question type: Selection

Yes

No

32. **How often**

    Question type: Dropdown selection

Less than once a year

Not every month but multiple times per year

Once a week or more but not every day

On a daily basis

33. **What level of expertise do you think you currently need on climate change issues in agriculture to answer farmers needs?**

    Question type: Selection

None

Only the basics

Moderate knowledge

Good knowledge

Very good knowledge

Within the CSA project, we aim to offer a combination of both technical (structured along 12 thematic areas) and methodological training. The following question seeks to identify your training preferences for both knowledge areas.

34. **Please select three most important areas of knowledge for you from the different thematic areas given below**

    Question type: Multiselection

Crops management

Grass management

Forage production

Agroforestry and relations to landscape

Herd management

Manure storage and spreading

Additives for reducing enteric methane emissions

Soil health and biodiversity

Energy management

Biogas production

Water management

Rewarding mechanisms

35. **Please select three most important areas of knowledge for you from the different methodological skills given below**
    Question type: Multiselection

Communications (I.e. reaching broader audience)

Coaching

Facilitation training

Leading change/change management

Relationship building (trust, empathy, brokerage)

Rhetoric and presentation skills

Benchmarking and monitoring progress in reducing GHG emissions

Organising, delivering, and evaluating impactful events

Prioritising climate actions

Other, please specify

36. How do you currently keep your climate-related knowledge up to date?
Question type: Multiselection

Nationwide training (multiple organisations)

Small group learning

Independent study

Learning within your own working team

Online training by international experts

Newsletter(s)

Videos, podcasts

Cross visits

Following scientific publications

I don't keep up with climate-related knowledge

Other, please specify

37. What would be your preferred method for keeping your climate-related knowledge up to date?

Choose max three most preferred ones for you.

Question type: Multiselection

Nationwide training (multiple organisations)

Small group learning

Independent study

Learning within your own working team

Online training by international experts

Newsletter(s)

Videos, podcasts

Cross visits

Following scientific publications

I don't want to keep up with climate-related knowledge

Other, please specify

38. Which of the following GHG farm audit/ measurement tools have you used?

Select all that applies.

Question type: Multiselection

- Agrecalc
- Air.e
- Biocode
- BOVID CO2
- CAP2ER
- CAP2ER Grandes cultures (Crops)
- Carbon footprint of a farm. Scope 1 + 2
- Carbon-Extract
- CONVIS Sustainability Assessment Tool
- Cool Farm Tool
- DECiDE
- Digital tools for soil and air quality; digital tool for monitoring of pests to
- EkonMOD
- Farm Carbon Calculator
- FaST-Navigator
- GEEP and CAP2ER
- GES&VIT
- Klimrek
- KLIR = Klimaschonende und Ressourceneffiziente Milchproduktion
- Kringloopwijzer (ANCA)
- None of the tools
- Other, please specify

39. Do you know repositories of Climate Smart Farming technical tools

Description of on-farm practices, assessment tools, videos etc.

Question type: Selection

Yes

No

40. If yes, please write a link to them

Link

Link

Link

41. Do you know repositories of advisory methods?

E.g. methods for motivation, group work, facilitation etc.

Question type: Selection

Yes

No

42. If yes, please write a link to them

Link

Link

Link

MOTIVATION, DRIVERS AND BARRIERS

In the following questions, please rate the level of your agreement with the following statements (1=I don't agree and 5=I strongly agree)

43. I am motivated to act more on climate change related matters?

Question type: Slider

I don’t know

I don't agree

I strongly agree

44. The following motivates me to act more on climate change related matters

Question type: Matrix

1=I don't agree and 5=I strongly agree

I don't agree

2

3

4

I strongly agree

I am not motivated at all, because there is nothing to do about climate change

I feel pressured to do so (e.g. by my employer or society)

I want to stay qualified advisor

I want to be recognized as a good advisor amongst farmers and colleagues

I consider the agricultural sector as one of the main potential solvers for climate change, thereby improving its’ image

I enjoy to using and sharing new knowledge to support farmers

45. Are there other motivation factors you would like to mention? Please specify below:
Question type: Text field

46. The following prevents me to do more on climate change related issues

Question type: Matrix

1=I don't agree and 5=I strongly agree

I don't agree

2

3

4

I strongly agree

I struggle to invest (e.g. not enough time, my employer does not support it, …)

I see no added value for my work(I don't need it for my work, not a priority for farmers)

I am not interested in the subject

Information is lacking or I don't know where to find it

Information exists, but I am not sure where to start or how to use it in practice

47. Are there other barriers you would like to mention? Please specify below:

The following questions refers to your country, please indicate three most important factors from your point of view. If you have selected a region in the beginning of the survey, please consider the regional level in the following questions.

48. Which of the following could increase the motivation to act on climate change issues in the agricultural sector in your country/region?

Question type: Multiselection

Select three most important factors.

More research on the topic

Increased cooperation between different actor groups (farm, research, advisory, education, political bodies)

Increased support for the practical implementation of climate actions

Political leadership towards climate actions (i.e. change in taxation or subsidies to favour low emission actions)

Extreme weather conditions

Standardised GHG monitoring methods

Other, please specify

49. What are the main barriers in your country/region to implement more climate change mitigation or adaptation actions at farm level

Select three most important factors.

Question type: Multiselection

Regulation

Lack of training for farmers/advisors

Contradictory or lack of knowledge

Negative attitudes towards climate actions

Economic/Financial barriers

Technical barriers

There are no barriers

Other, please specify

Thank you for taking the time to complete our survey!

Your feedback is valuable to us. If you wish to receive the results of this survey and stay updated on future developments, please indicate it below and provide your contact details. Your information will be kept confidential and will only be used for the purpose of sharing survey results and relevant updates. Thank you once again for your participation!

50. I want to receive the survey results

Yes

No

51. I want to register for the ClimateSmartAdvisors project newsletter

Yes

No

Question type: Contact form

52. Please add your contact details below

Name

Email

Thank you!

Your answers were submitted.

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