Future Scenarios for EuroMed Agrifood

Report

PRIMA
PARTNERSHIP FOR RESEARCH AND INNOVATION
IN THE MEDITERRANEAN AREA

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With the participation of

Union pour la Méditerranée
Union for the Mediterranean
الإتحاد من أجل المتوسط

Future Scenarios for the EuroMed Agrifood

This synthesis has been prepared based on the results of the EuroMed Survey that has been launched in the frame of PRIMA (*Partnership for Research and Innovation in the Mediterranean Area*) in the last months.

The self-administered survey was meant to understand the situation of the EuroMed agrifood system in light of the COVID pandemic, the emerging trends, the new challenges as well as the transformations to be positively induced.

The following pages include an initial summary of the main findings, based on more than 180 answers received, and some preliminary remarks, which take into account the notes, comments and analyses sent by the experts. In Annex, each survey-question is presented and briefly commented.

The current working document will be further developed and enriched with a summary of the online debate co-organized by PRIMA and the Union for the Mediterranean on July 15, as well as additional notes and contributions from PRIMA-partnering institutions.

Introduction

During the first months of the year 2020, humanity faced what could be described as the biggest global crisis of the generation. Worldwide governments and people responded quickly and decisively. Actions and decisions were made, and the measures that have been adopted will probably shape the world for years to come, not only affecting the healthcare systems but also economies, politics and culture.

The United Nations[1] have published a report on March 2020 identifying the main socio economic impacts provoked worldwide by the COVID-19 disease with reference to the 17 Sustainable Development Goals (SDGs) of the Agenda 2030. Scope of the report was to address efforts to restore livelihoods and let the global economy and people emerge stronger from this crisis.

In addition to the devastating effects on public health (SDG 3), the main problems emerged concern the loss of income leading vulnerable segments of society to fall below poverty line (SDG 1), the risk of collapse during the crisis of essential services including food production and distribution (SDG 2) and clean water supply (SDG 6), and the reduced commitment to climate action, despite temporary benefits due the lockdown in terms of avoided emission (SDG 13). It is clear from these observations that the restart must build on lessons learnt and decisively operate to transform world economy, with Europe in the forefront, to affirm a new developmental model inspired by the SDGs.

The Agrifood ecosystem was among the most affected sectors due to the international borders closure, national lockdowns and the enforced restrictions on mobility and flow. Farmers were not able to reach to their own farms and their ordinary willingness to purchasing products and services had been seriously affected. The farming industry in general had to deal with a huge set of problems from uncertainty in supply and demand to labor shortages to family needs and personal health. We were clearly shown also that health is a single, all-encompassing concept. Namely, that the state of our body, environment and food are tightly interconnected.

PRIMA (*Partnerships for Research and Innovation in the Mediterranean Area*) could have not avoid considering this pandemic and its effects. Research and innovation, in fact, have an even greater role to play now to induce the transformations needed in view of more sustainable and equitable Mediterranean region. With this in mind, PRIMA is willing to contribute for the years to come to the recovery of the Euromed region and the water, farming and agrifood sectors.

In the agrifood sector, in particular, we have launched a survey meant to understand the current trends, the emerging needs and challenges, the possible solutions and the best practices, bearing in mind the European Green Deal[2] and the Farm to Fork Strategy[3] that provide a general approach to the agrifood sector, clearly referring to an integrated and lifecycle oriented rationale.

The pandemic has also reminded us, once again, that certain challenges, like the Climate Change, do not know borders and collective responses are the only possible solutions. In this sense, our Partnership and the equal-footing principle that is underpinning it, proves to be the right path.

The following pages summarize the answers and opinions received and are meant to prepare the discussion for the online round-table that will be held on July 15, when experts and representatives of some institutions will debate the main issues in the agrifood sector, highlighting also their experience of their institutions and initiatives.

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[1] United Nations. Shared responsibility, global solidarity. Responding to the socio-economic impacts of COVID-19. 2020.

[2] EC (2019). Communication from the Commission to the European Parliament […]. The European Green Deal. December 2019.

[3] EC (2020). Communication from the Commission to the European Parliament […].A Farm to Fork Strategy for a fair, healthy and environmentally-friendly food system. May 2020.

Main Findings

All respondents have been asked to state their opinion on several statements concerning the future of Euro-Med scenario for agrifood. The statements have been divided into three pillars: *agrifood systems and society, businesses, consumers*. The answers have been provided on the base of the following *Likert* scale:

1. I strongly disagree
2. I don't agree
3. Neither agree nor disagree
4. I agree
5. I fully agree

The respondents are 181 experts in agrifood and sustainability of the Mediterranean basin. Most of them are academic or work in public institutions. The representatives of the PRIMA Board of Trustees as well as the members of the Scientific Advisory Committee have been involved.

Here below the results are reported, based on the "*consensus*" or "*divergence*" that the interviewees have shown on each statement. Detailed per/question data are presented in the Annex (p. 7) for the entire sample and disaggregated at area level, North and South Mediterranean countries. In addition, each statement is also interpreted using the Threat/Opportunity perspective, highlighting some concrete questions that can better help addressing the issue.

Summary of agrifood systems and society pillar

Large consensus versus 'agree' position	Not convergence and doubtfull positioning
✓ Limitations to mobility of temporary agricultural work force will negatively impact production ✓ International trade will slow down ✓ International policies on agri-food need to be defined to allow a broader governance and more effective controls on sustainable production of food ✓ Food security and regional/national self-sufficiency will become more important ✓ Innovative approaches will be needed to secure food supplies to vulnerable groups ✓ Price volatility of agricultural commodities will grow	✓ Major disruptions in international food supply chains will occur ✓ Agrifood supply chains will become shorter

Summary of businesses pillar

Large consensus versus 'agree' position	Not convergence and doubtfull positioning
✓ The introduction of technological innovations (Agriculture 4.0, artificial intelligence, digitalization, blockchains, innovative research-based products …) will become crucial for agrifood businesses to survive ✓ The introduction of organisational innovations (new business models, aggregations, partnerships, …) will become	✓ Major financial problems will affect big agrifood businesses ✓ Attention to the scenario post COVID will induce businesses to give less attention to Agenda 2030

crucial for agrifood businesses to survive ✓ E-commerce will streamline value chains and digital sales will grow ✓ Major financial problems will affect smallholders ✓ Major financial problems will affect SMEs in the agrifood sector ✓ Risk management will become more relevant	

Summary of consumers pillar

Large consensus versus 'agree' position	Not convergence and doubtfull positioning
✓ Due to the economic crisis, consumers will give attention mainly to the price of food ✓ Consumers will give more attention to rigorous traceability of inputs, production processes and logistics (not strong consensus) ✓ E-commerce and digital sales will grow	✓ Consumers will give more attention to sustainably produced food ✓ Consumers will give more attention to nutritious and healthy food ✓ Consumers will give more attention to canned and long-life food ✓ The Mediterranean diet will be increasingly adopted ✓ Major disruption of street markets will occur

Additional remarks

In addition to the empirical results, experts have also provided a professional opinion about what they believe are possible future scenarios, underscoring and commenting the issue, aspect or trend considered mostly relevant in the agrifood Euromed sector.

Some opinions supported the general idea that new priorities will emerge and that some post pandemic changes will take place especially on the short-term, but they still believe that the pre-COVID-19 priorities will become important again.

However, some opinions went in the opposite direction that the situation with Covid-19 had been exaggerated beyond facts and that many people jumped into conclusions without any objective data regarding the Agrifood sector, which has shown remarkable resilience over the years and therefore it would not be greatly affected by the covid-19 pandemic.

In regards to **consumers**, experts think that this crisis is going to worsen **the gap** between the rich and poor; and that food choices will be linked to that. Therefore, price will be the main influencer of poor consumers food choices, while the richest will consider other dimensions such as sustainability, healthy foods and their traceability.

Economic uncertainty of families, conditioned to wages discontinuities induced by crises, and the exacerbated distance between the richest and poorest compromise access to healthy food, often limiting options to low cost, over-processed and indefinitely storable foodstuff. Local food suppliers, including small farmers and retailers, can contribute to match the demand of fresh food and fill the void left by large retailers thus representing a strategic asset to face crises.

Food safety originates from the work of producers and control authorities, but consumers, with their food habits, play the most important role in preventing effects of pandemics. The rate of obesity is impressively around 20% of the Euro-mediterranean population and obese people belong the category of most vulnerable to virus attack. Empowering consumers to make better-informed decisions that are healthier for them and for the planet is an urgent measure.

Several opinions supported the idea that we need to introduce more **innovatively designed research methods** while others went more specific and highlighted the need to further investigate interdependencies across geographical areas and the different types of value chain. On the other hand, other experts mentioned that under the current circumstances and because the emergency is still on, it is difficult to predict what specific trends will prevail.

However, it was realised also that **meeting the demand** for constant food supply under pandemic conditions was a **challenge**, and as a result, for the post-COVID scenario it is important to promote **innovative solutions** that can improve the global and local efficiency of the entire Agrifood production chain, while maintaining high nutritional values and affordable retail prices. Innovation therefore plays a crucial role in allowing food productions to satisfy new needs with the widest possible benefits: those operating in this sector must introduce forms of **technological, organizational and social innovation** into their production, processing and distribution activities. In the absence of new ways to produce and redefine their own business models, the companies operating in the sector could hardly be able to exploit the full potential of the Mediterranean Diet, so as to bring about the desired benefits for themselves and their communities. Technological and organizational innovation is therefore a decisive factor if we seek to have agri-food systems that meet the nutritional needs of all citizens, all the while respecting the environment and animals and safeguarding public health.

For the majority of experts, agrifood value chains will also need restructuring post COVID-19, but this may only be driven by wise **policies** in order to achieve better sustainability. These policies should focus more on protecting smallholders and supporting short and regional supply chains, as well as highlighting the advantages of fast on-shelf delivery with less mediators, which will not only enhance food security characteristics, but will also increase smallholders' earnings. More in general, a wider governance is needed to share policies and strategies for the agrifood sector that need to be discussed and agreed by experts, food operators and policy makers.

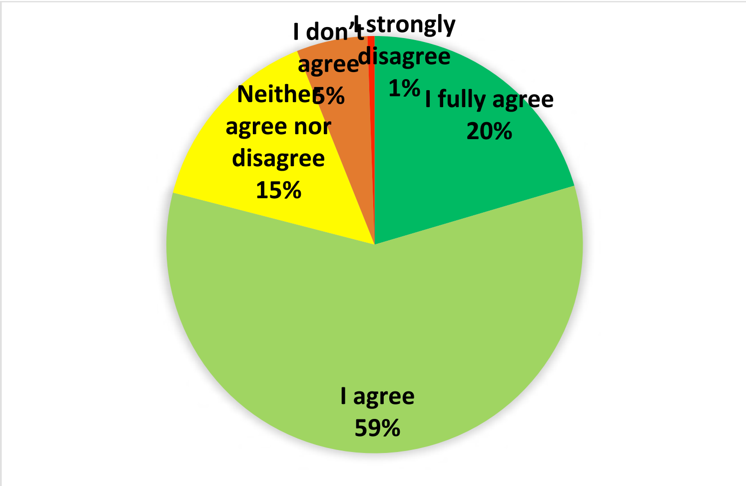
In conclusion, lessons learnt from the COVID pandemic suggests that a prosperous reboot will require testing and deploying **innovative solutions** for preventing or eventually managing new crises. The post-COVID innovation action must cover a wide range of issues, from education addressed to consumers to promote sustainable food patterns, to solutions addressed to value chain actors, including technologies, nature based solutions and organisational frameworks. More in general, the desirable direction goes towards a **transformative resilience** and the agrifood sector in particular will have a crucial role in this transition process.

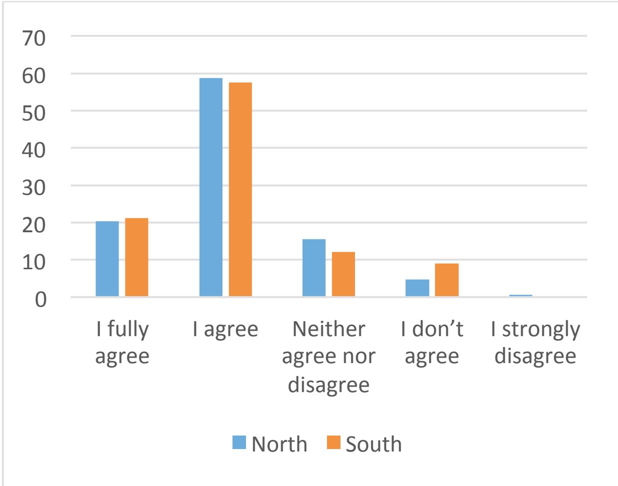
Despite the disruption caused by the pandemic to economies, experts still believe that the **major challenges** Agrifood production was facing and will face in the future **are current and ongoing**, and therefore, emphasis should be given to create more resilient Agrifood systems in conjunction with more sustainable and anthropocentric social and economic systems, and that markets will pick up faster than predicted.

Annex – Detailed Empirical Results

Agrifood systems and society

1. <u>Limitations to mobility of temporary agricultural work force will negatively impact production</u>

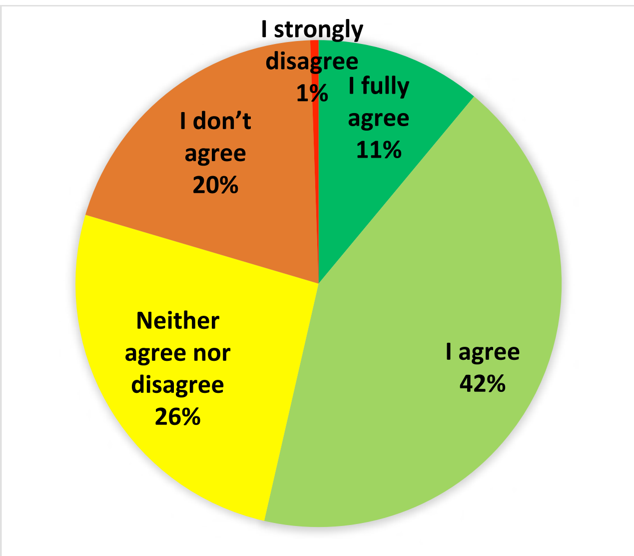


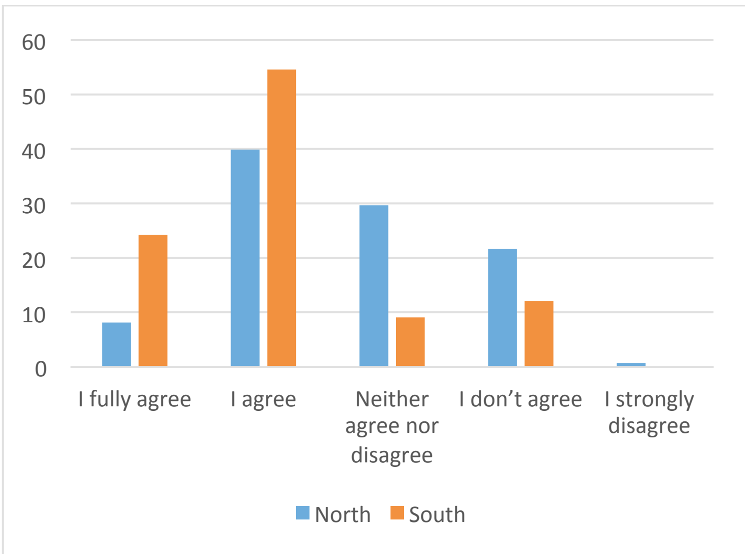


There is a strong agreement on this statement from all respondents; 79% agree or fully agree on it and there is no different view between respondents of South or North Med.

Statements	Prevalent answer	Opportunity vs. Threat	Critical issues and challenges
SOCIETY	**Yes - No**	☑ - ☒	
Limitations to mobility of temporary agricultural work force will negatively impact production	Y	☒	Statistics show trends of abandon of rural settlements in the EuroMed area with a constant increase of urban population and decrease of employees in the agrifood sector. The composition and dynamics of labour force in agriculture is a critical issue as well as labour rights and fair salaries of growers being determinant actors of the value chain. The emerging THREAT enhances the role of temporary agricultural workers as crucial agents for food security. **CHALLENGES:** How to limit uncertainty? How to guarantee labour rights? How to support agribusinesses?

2. <u>Major disruptions in international food supply chains will occur</u>

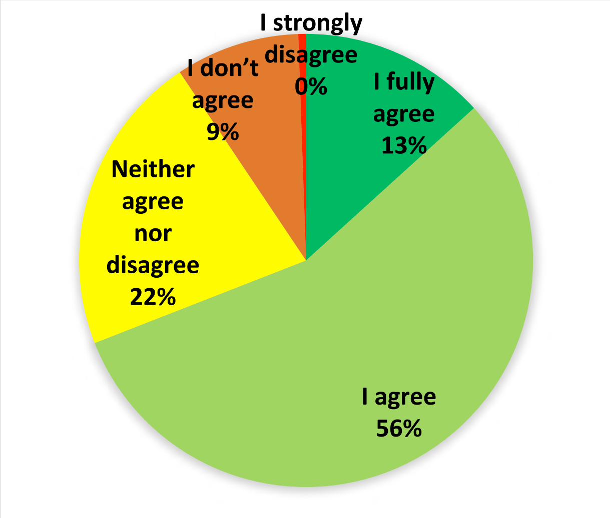


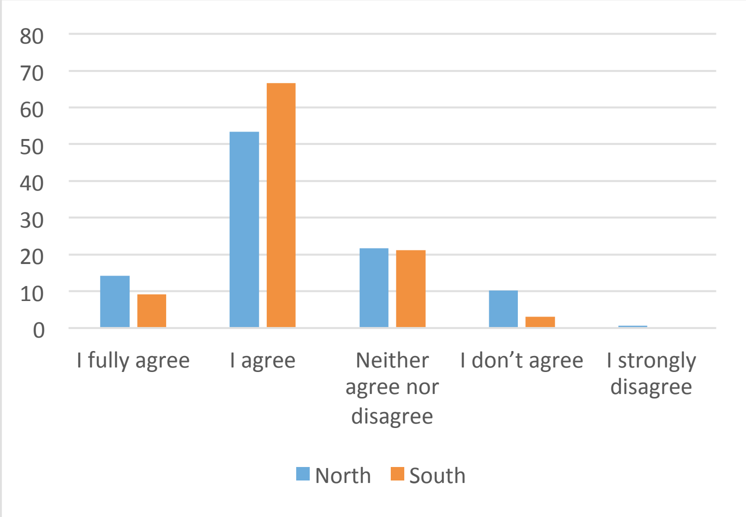


Responses to this statement are more eterogeneous and less convergent: 53% of respondents agree or fully agree with it, but 26% have no opinion on it and 21% disagree with it. Responses are also different between *respondents from North or South Med. While South respondents mostly agree, North respondets are very scattered between agree/don't agree/neutral.*

Statements	Prevalent answer	Opportunity vs. Threat	Critical issues and challenges
SOCIETY	**Yes - No**	☑ - ☒	
Major disruptions in international food supply chains will occur	Y	☒	Instability of international supply chain concerning food trade represents a THREAT that confirms the importance of local food supply, among the possible mitigation measures. Countries with high rates of food income are more vulnerable. **CHALLENGES:** What policies are need to guarantee international food supply as a factor of food security?

3. International trade will slow down

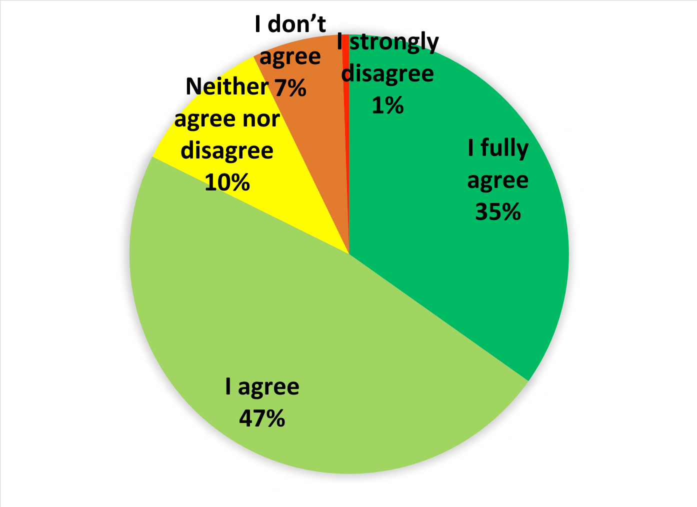


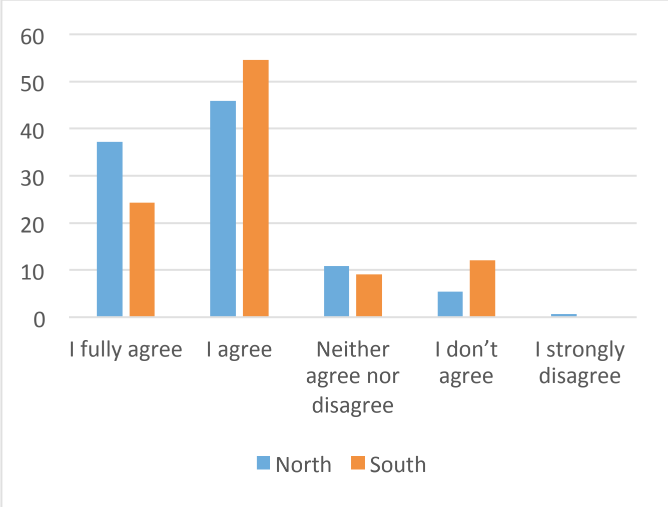


The statement has got a large consensus: 69% of respondents agree or fully agree with it. South Med respondents converge more on agreeing the statement. 22% of respondents have no opinion.

Statements	Prevalent answer	Opportunity vs. Threat	Critical issues and challenges
SOCIETY	**Yes - No**	☑ - ☒	
International trade will slow down	Y	☒	The slow down of international trade is perceived as a THREAT, especially concerning economy of agrifood value chain actors, in some cases almost fully oriented to the global market. **CHALLENGES:** What policies are needed to limit the effects of trade bloc? How to promote market differentiations schemes and versatility?

4. International policies on agri-food need to be defined to allow a broader governance and more effective controls on sustainable production of food

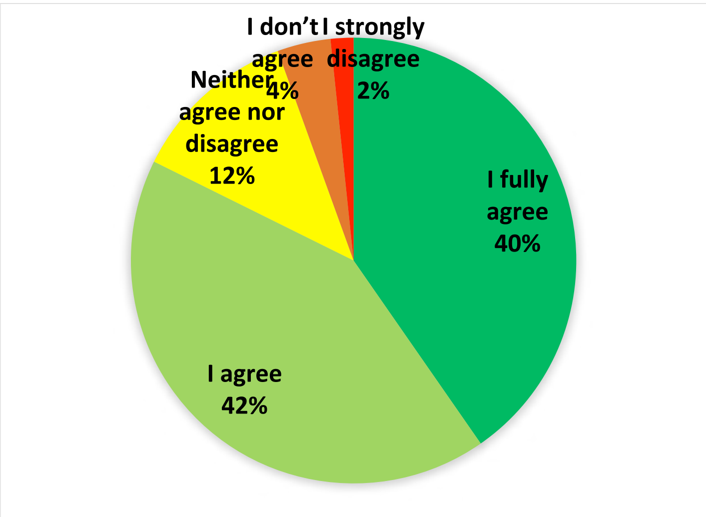


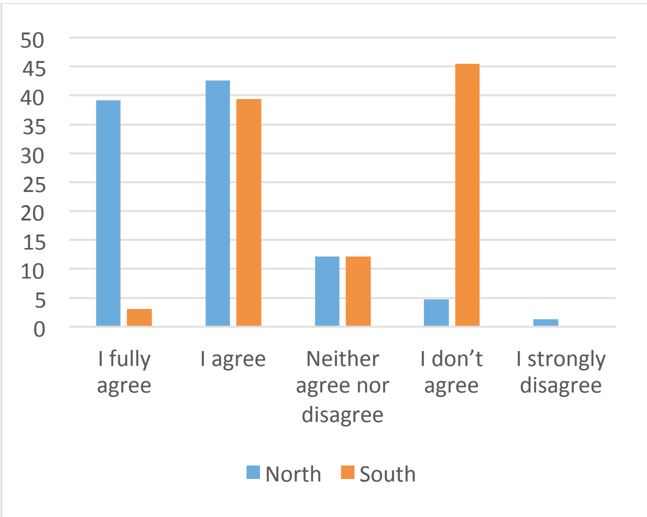


There is a strong agreement on this statement: 82% of the respondents agree or strongly agree on it and there is also almost a uniform distribution between North and South respondents.

Statements	Prevalent answer	Opportunity vs. Threat	Critical issues and challenges
SOCIETY	**Yes - No**	☑ - ☒	
International policies on agri-food need to be defined to allow a broader governance and more effective controls on sustainable production of food	**Y**	☑	Sustainability of food value chain is generally interpreted as an OPPORTUNITY and priority requisite to be met at the international level, in compliance with the EC 2020 "farm to fork" communication. **CHALLENGES:** How to enforce international cooperation to increase governance and control on agrifood practices?

5. <u>Food security and regional/national self-sufficiency will become more important</u>



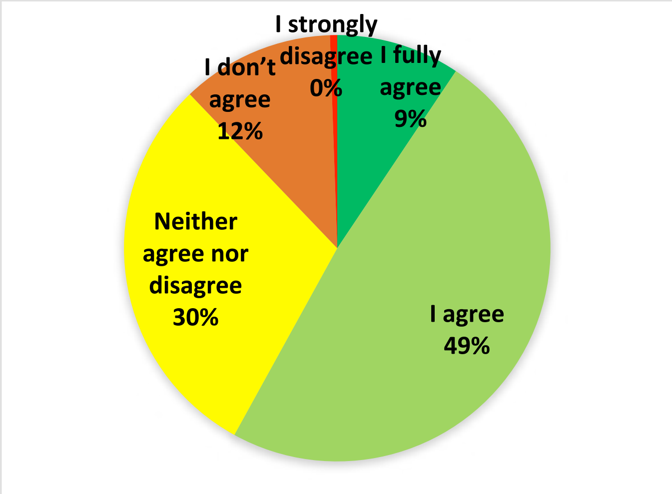


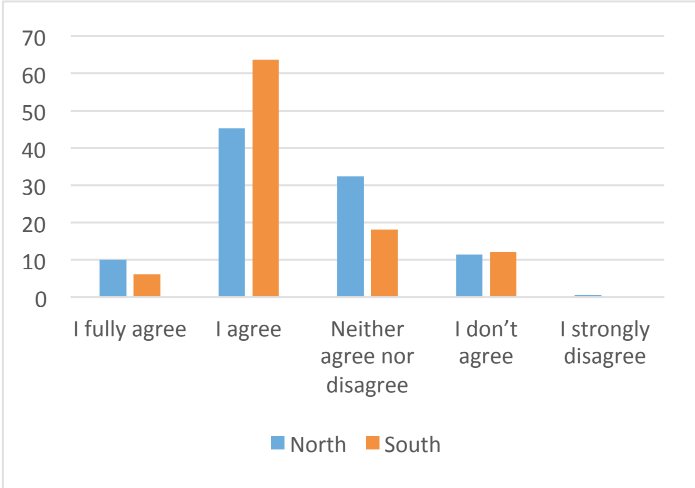
There is a strong agreement on this staetement: 82% of the respondents agree or strongly agree on it but if we consider the responsens by area the situation is very different between north and south respondents. While North respondents all converge in agreeing or fully agreeing the statement, the south respondents are equally divergent between agree and don't agree.

Statements	Prevalent answer	Opportunity vs. Threat	Critical issues and challenges
SOCIETY	**Yes - No**	☑ - ☒	
Food security and regional/national self-sufficiency will become more important	**Y** & N	☒☑	Increasing the rate of food internal supply at national and regional level is seen as an OPPORTUNITY in most cases. Nevertheless, this is highly dependent from climate and environmental contexts, and can represent a THREAT for example in conditions of water scarcity (limited self-sufficiency). Divergent results recorded for the southern

			area may depend from contextual reasons. **CHALLENGES:** How to support the establishment of more consistent national and regional food value chain networks? How to remedy the lack of self-sufficiency (when relevant) to guarantee food security?

6. Agrifood supply chains will become shorter

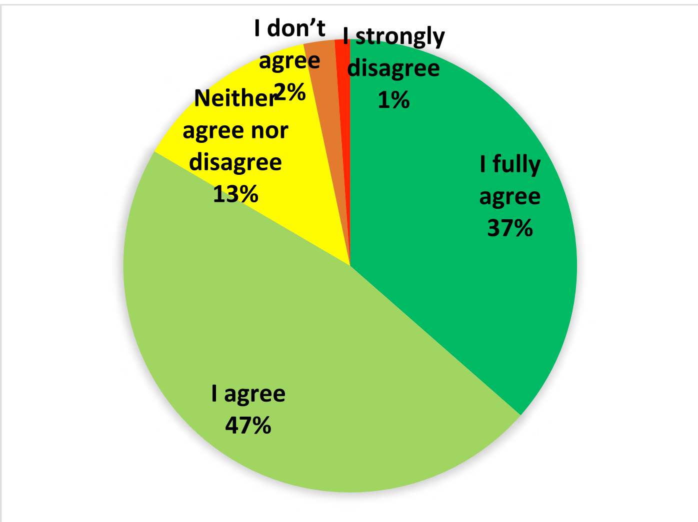


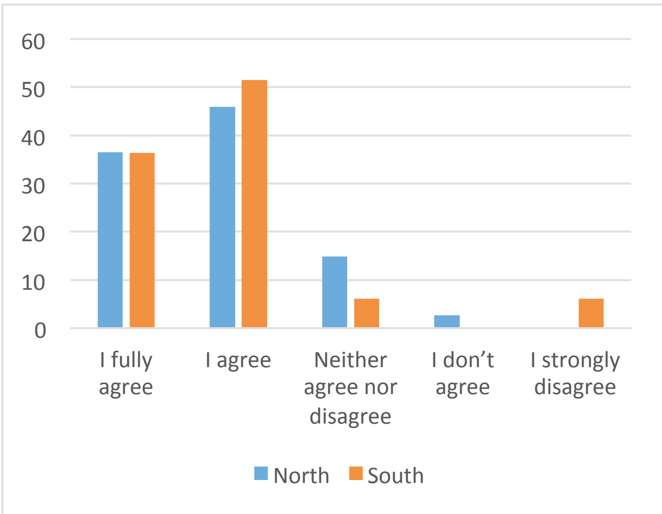


There is not a strong convergence for this statement: only 50% of the respondents agree on it, while 30% have a netrual position. South respondents agree with it more than North repondents.

Statements	Prevalent answer	Opportunity vs. Threat	Critical issues and challenges
SOCIETY	**Yes - No**	☑ - ☒	
Agrifood supply chains will become shorter	**Y**	☑	Short food supply chains and lively local food markets are generally agreed to be an OPPORTUNITY to enforce local economies around welfare and healthiness of local communities, including rural settlements. This is expected to increase resilience of the agrifood sector and contribute to food security. **CHALLENGES:** how to support rural communities? How to engage smallholders and agribusinesses? How to strengthen value chain networks as market leverage?

7. Innovative approaches will be needed to secure food supplies to vulnerable groups

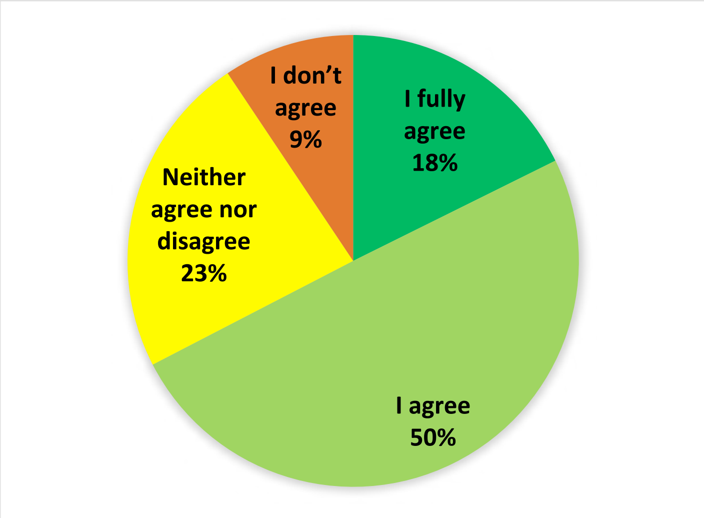


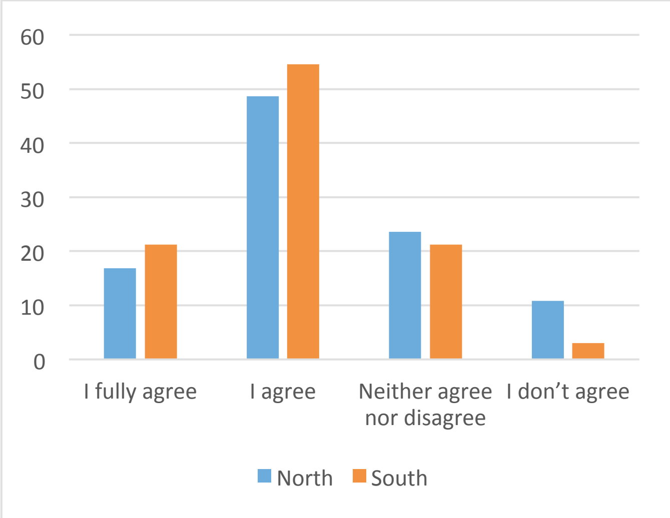


There is a strong agreement on this statement: 84% of the respondents agree or strongly agree on it and there is also almost a uniform distribution between North and South respondents.

Statements	Prevalent answer	Opportunity vs. Threat	Critical issues and challenges
SOCIETY	**Yes - No**	☑ - ☒	
Innovative approaches will be needed to secure food supplies to vulnerable groups	**Y**	☑	Innovation offers multiple OPPORTUNITIES from both the production and the consumption side but also concerns social issues that need to be managed by combining efforts of public institutions and businesses. **CHALLENGES:** How to increase the access to fresh food with a key role played by retailers and local food suppliers? How to decrease food waste throughout the production chain? How to promote healthy food habits (e.g. Mediterranean diet) and avoid low-cost hyper-processed food consumption?

8. <u>Price volatility of agricultural commodities will grow</u>





68% of the respontents agree or fully agree on this statement and the distribution of the answer by area is completely equivalent. 23% of respondents are neutral on this statement.

Statements	Prevalent answer	Opportunity vs. Threat	Critical issues and challenges
SOCIETY	**Yes - No**	☑ - ☒	
Price volatility of agricultural commodities will grow	**Y**	☒	Price volatility is generally perceived as a THREAT especially concerning agricultural commodities with potential consequences on food security. **CHALLENGES:** What policies are needed to safeguard primary productions from market changes?

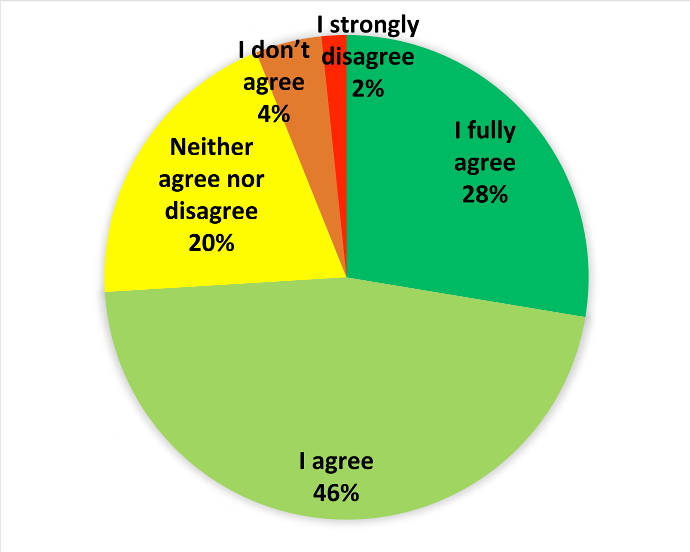
Summary of agrifood systems and society pillar

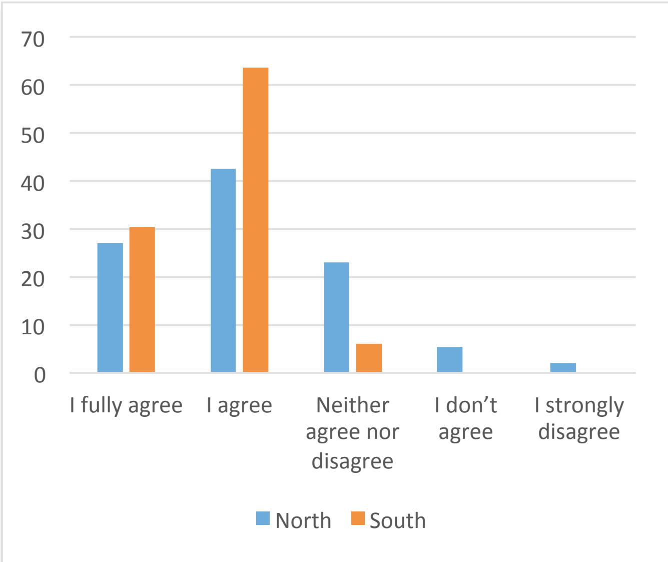
Large consensus versus 'agree' position	Not convergence and doubtfull positioning
✓ Limitations to mobility of temporary agricultural work force will negatively impact production ✓ International trade will slow down ✓ International policies on agri-food need to be defined to allow a broader governance and more effective controls on sustainable production of food ✓ Food security and regional/national self-sufficiency will become more important ✓ Innovative approaches will be needed to secure food supplies to vulnerable groups	✓ Major disruptions in international food supply chains will occur ✓ Agrifood supply chains will become shorter

✓ Price volatility of agricultural commodities will grow	

Businesses

1. The introduction of technological innovations (Agriculture 4.0, artificial intelligence, digitalization, blockchains, innovative research-based products …) will become crucial for agrifood businesses to survive

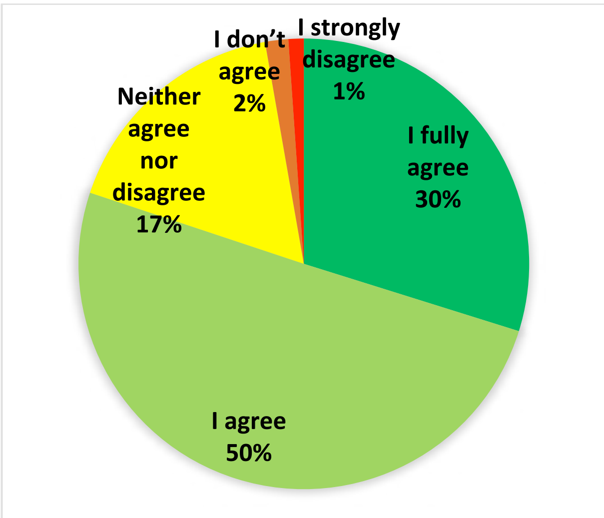


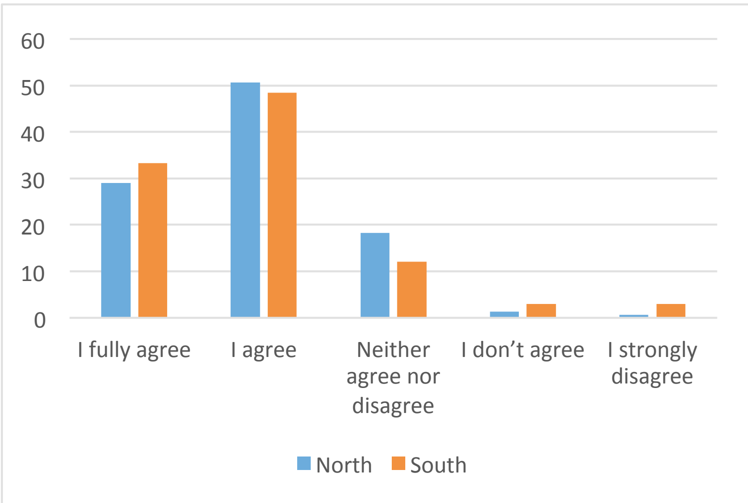


There is a strong agreement on this statement: 74% of respondents agree or fully agree with it. If we consider the distribution of the responses by area, South med respondents agree more than North ones. North respondents have a larger percentage of neutral positions.

Statements	**Prevalent answer**	**Opportunity vs. Threat**	**Critical issues and challenges**
BUSINESS	**Yes - No**	☑ - ☒	
The introduction of technological innovations (Agriculture 4.0, artificial intelligence, digitalization, blockchains, innovative research-based products …) will become crucial for agrifood businesses to survive	**Y**	☑	Innovative technologies offer multiple OPPORTUNITIES by engaging different value chain actors and can become a leverage for the market, by increasing yields, efficiency and sustainability of food productions as well as communication and engagement of consumers. **CHALLENGES:** What tools and incentives should be implemented to support innovation action? What direction is expected to be addressed by innovation?

2. The introduction of organisational innovations (new business models, aggregations, partnerships, …) will become crucial for agrifood businesses to survive

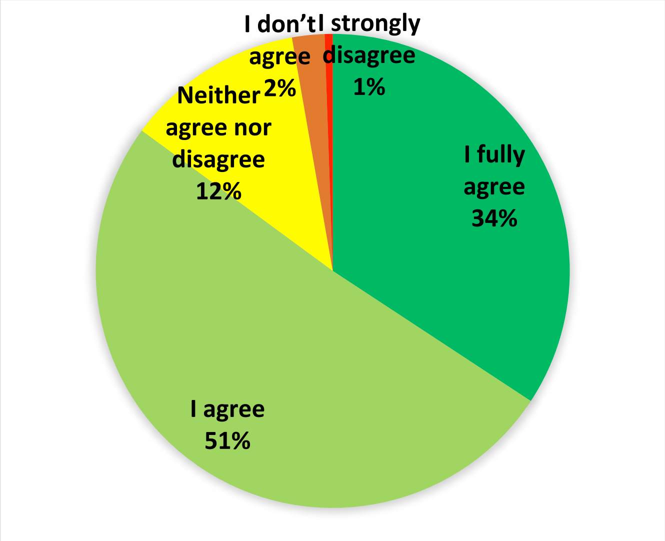


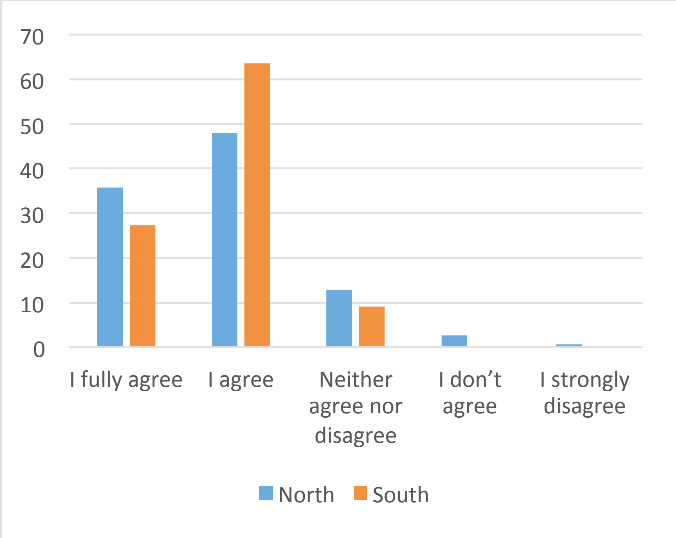


There is a strong consensus on this statement: 80% of the respontents agree or fully agree on this statement and the distribution of the answer by area is completely equivalent. 17% of respondents are neutral on this statement.

Statements	Prevalent answer	Opportunity vs. Threat	Critical issues and challenges
BUSINESS	**Yes - No**	☑ - ☒	
The introduction of organisational innovations (new business models, aggregations, partnerships, …) will become crucial for agrifood businesses to survive	Y	☑	Organisational innovation has much to do with the problem of fragmentation of the agrifood sector and the OPPORTUNITY to increase cooperation among value chain actors, made of smallholders, including farmers, food processors and retailers. **CHALLENGES:** How to increase innovation capacity building of smallholders and SMEs in the agrifood sector? How to support smallholders and give them access to innovation through direct collaboration with research centres and open innovation initiatives?

3. <u>E-commerce will streamline value chains and digital sales will grow</u>

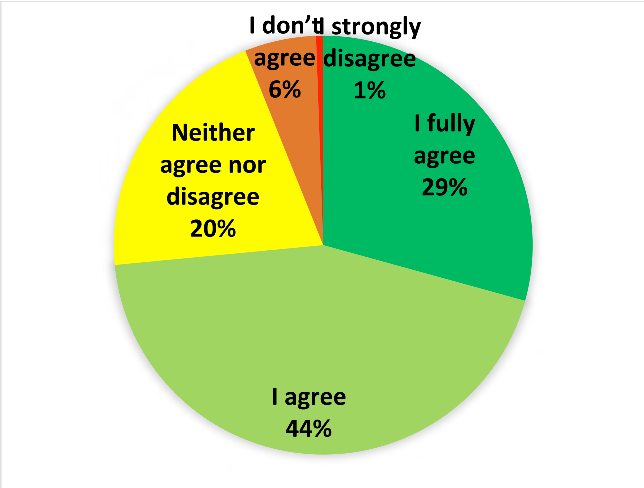


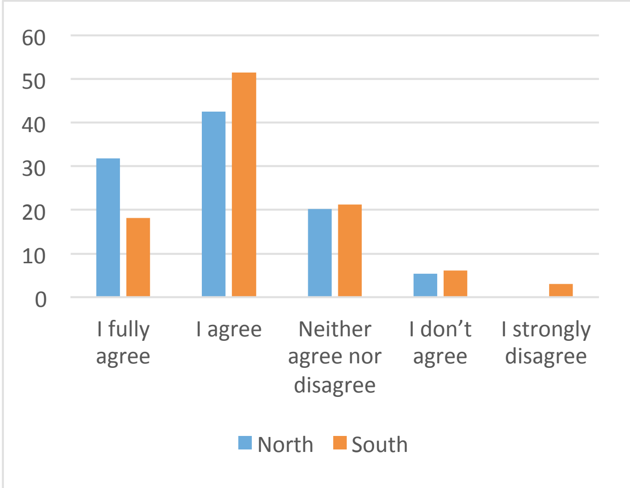


There is a strong consensus on this statement: 85% of the respontents agree or fully agree on this statement and the distribution of the answer by area is very similar. North resondents have an higher percentage of strong agreement.

Statements	Prevalent answer	Opportunity vs. Threat	Critical issues and challenges
BUSINESS	**Yes - No**	☑ - ☒	
E-commerce will streamline value chains and digital sales will grow	Y	☑	Sustainability of e-commerce is controversial, especially concerning the spatial dimension of the supply chain that is often global. Nevertheless, it represents an effective OPPORTUNITY for accessing food sources and eventually supporting smallholders. **CHALLENGES:** How to guarantee sustainability and traceability through e-commerce? What strategies to prevent overexploitation, delocalisation and spill-over effects of globalisation?

4. <u>Major financial problems will affect smallholders</u>

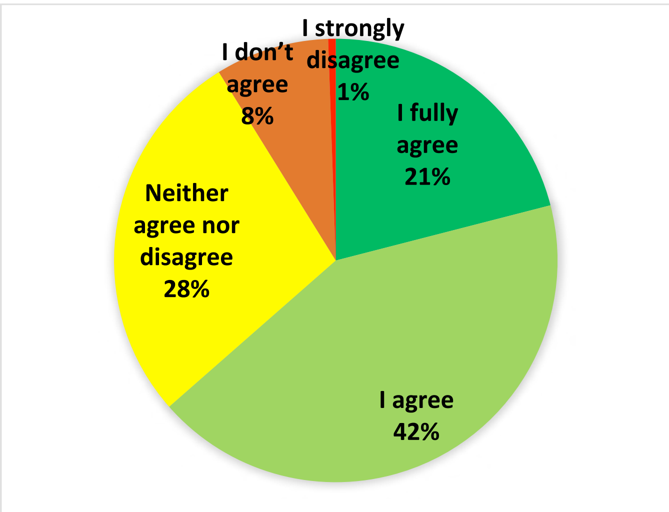


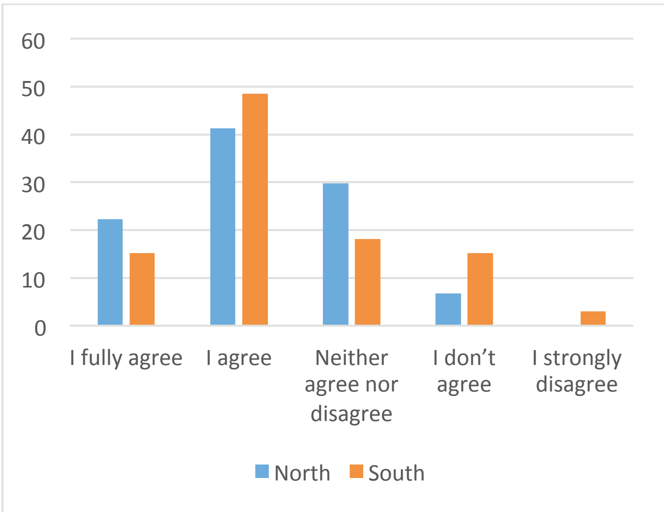


There is a strong consensus on this statement: 73% of the respontents agree or fully agree on this statement and the distribution of the answer by area is very similar. 20% of respondents have a neutral to the statement.

Statements	**Prevalent answer**	**Opportunity vs. Threat**	**Critical issues and challenges**
BUSINESS	**Yes - No**	☑ - ☒	
Major financial problems will affect smallholders	**Y**	☒	Given the majority of food growers are smallholders with limited financial allocation, economic sustainability of the agrifood sector depends to the capacity to manage this THREAT attempting food security in case of emergency. **CHALLENGES:** What financial tools can support smallholders and foster value chain networks development?

5. <u>Major financial problems will affect SMEs in the agrifood sector</u>



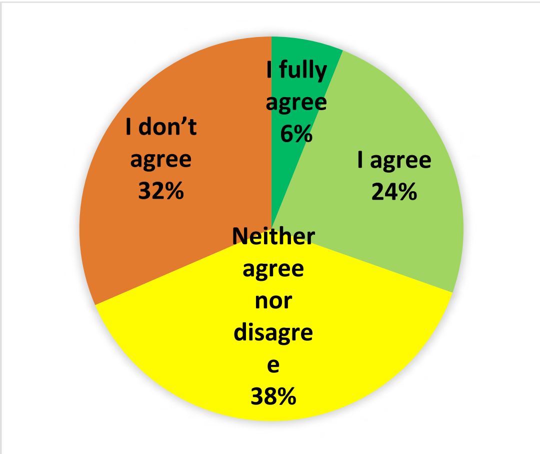


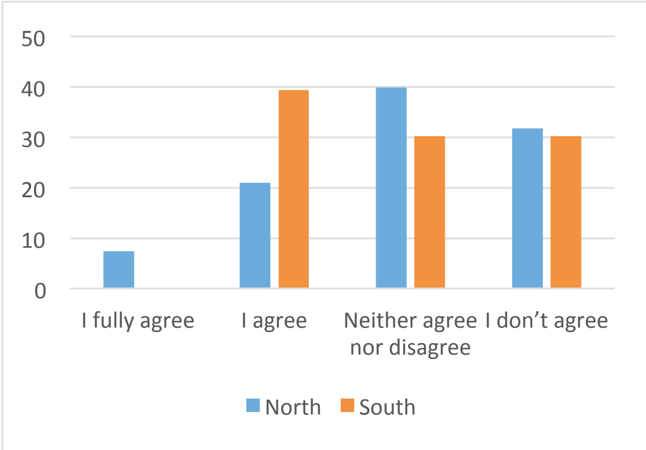
63% of respondents agree or fully agree on the statement and the distribution is similar by area. The percentage of respondents with a neutral position versus this statement is very high: 28%.

Statements	**Prevalent answer**	**Opportunity vs. Threat**	**Critical issues and challenges**
BUSINESS	**Yes - No**	☑ - ☒	
Major financial problems will affect SMEs in the agrifood sector	**Y**	☒	Given the majority of food value chain actors are SMEs with limited financial allocation, economic sustainability of the agrifood sector depends the capacity to manage this THREAT attempting food security in case of emergency. **CHALLENGES:** What financial tools can support smallholders

			and foster value chain networks development? How to make big retailers interact and cooperate with SMEs as local suppliers?

6. Major financial problems will affect big agrifood businesses

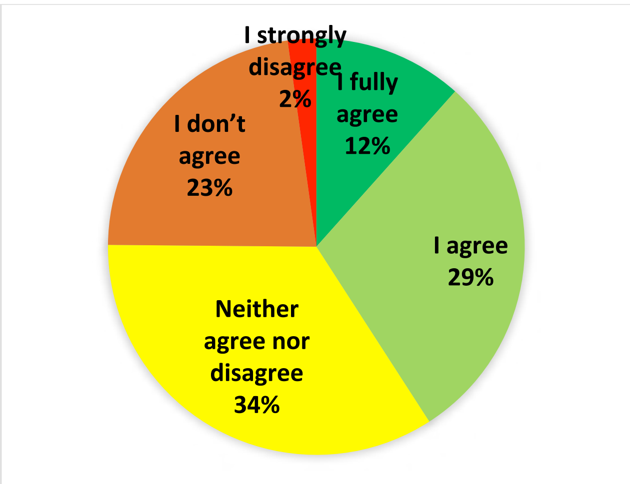


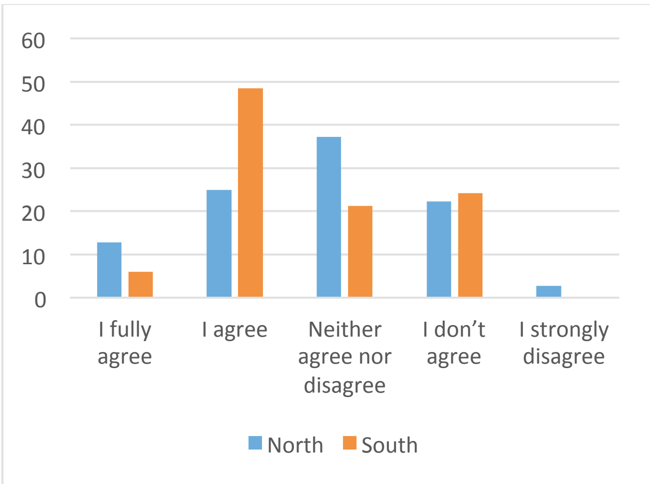


There is no convergence versus this statement, 32% of respondents don't agree with it, 30% agree or fully agree and 38% are neutral.

Statements	Prevalent answer	Opportunity vs. Threat	Critical issues and challenges
BUSINESS	**Yes - No**	☑ - ☒	
Major financial problems will affect big agrifood businesses	**N**	☑	Big agrifood businesses, including food industry and retailers, are perceived as most stable and resilient. Their role as business collectors can represent an OPPORTUNITY, given the necessary condition of a drastic transition to sustainable practices and fair trades. **CHALLENGES:** How to operate the transition to more sustainable practices, including traceability and fair trade of big businesses? What tools and innovations can contribute to drive the change?

7. Attention to the scenario post COVID will induce businesses to give less attention to Agenda 2030



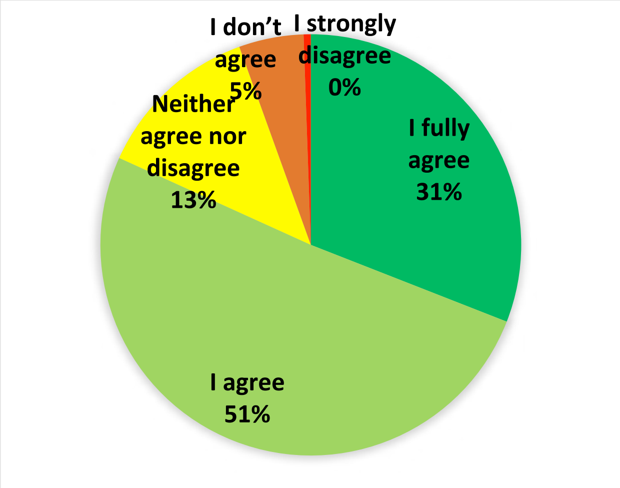


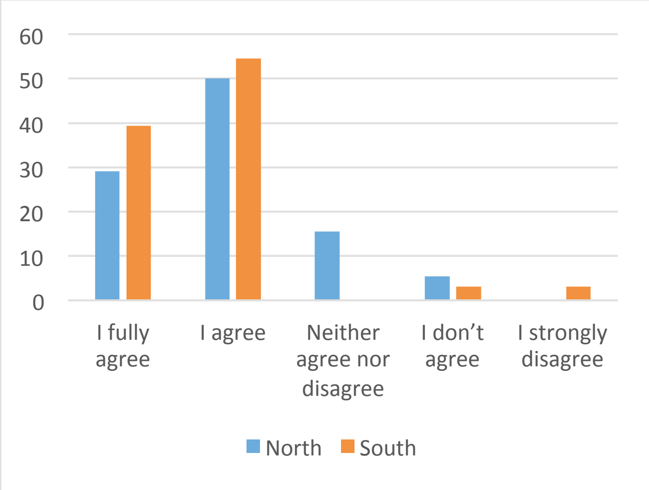
Also this answer, as the previous one, presents very scattered answers: 41% of respondents agree or fully agree with it, 25% don't agree or strongly disagree and 34% have a neutral position. South Med respondents agree more than North ones.

Statements	Prevalent answer	Opportunity vs. Threat	Critical issues and challenges
BUSINESS	**Yes - No**	☑ - ☒	

Attention to the scenario post COVID will induce businesses to give less attention to Agenda 2030	Y & **N**	☑	The THREAT of less attention to SDGs exists, but in general the COVID crisis is interpreted as an OPPORTUNITY to emphasize the urgency of the climate crisis and the need of change. **CHALLENGES:** How to make agribusinesses operate as agents of change by implementing sustainable practices and healthy food production. What tools and innovations are needed to prevent or eventually face new crises?

8. Risk management will become more relevant





This statement reports a strong consensus: 82% of respondents agree or strongly agree on it. The level of agreement is similar for both Med area, with the South respondents that report higher level of agreement, while 13% of North respondent are neutral to this statement.

Statements	Prevalent answer	Opportunity vs. Threat	Critical issues and challenges
BUSINESS	**Yes - No**	☑ - ☒	
Risk management will become more relevant	**Y**	☑	Among the OPPORTUNITIES emerged from the health emergency, risk management can become a standard practice to avoid crisis and reduce THREATS. **CHALLENGES:** What tools for risk management should be developed and made accessible to both big agribusinesses and smallholders? What risk assessment methods and policies should be implemented at national/regional level?

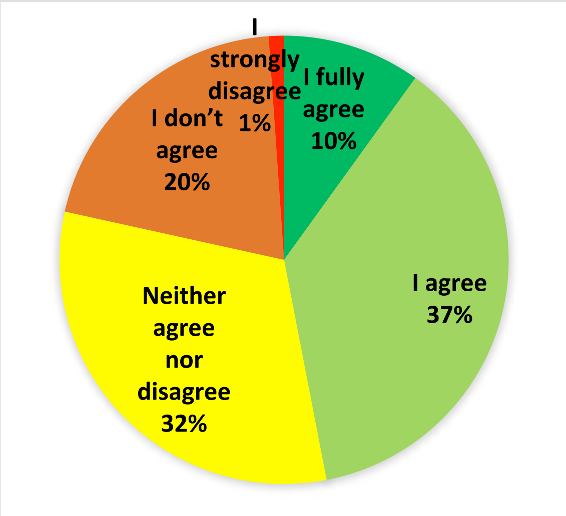
Summary of businesses pillar

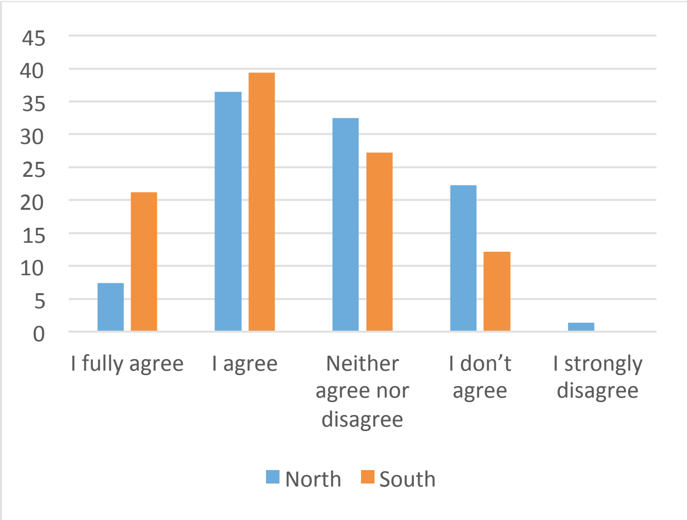
Large consensus versus 'agree' position	Not convergence and doubtfull positioning
✓ The introduction of technological innovations (Agriculture 4.0, artificial intelligence, digitalization, blockchains, innovative research-based products …) will become crucial for agrifood businesses to survive ✓ The introduction of organisational innovations (new business models, aggregations, partnerships, …) will become crucial for agrifood businesses to survive ✓ E-commerce will streamline value chains and digital sales will grow ✓ Major financial problems will affect smallholders ✓ Major financial problems will affect SMEs	✓ Major financial problems will affect big agrifood businesses ✓ Attention to the scenario post COVID will induce businesses to give less attention to Agenda 2030

in the agrifood sector ✓ Risk management will become more relevant	

Consumers

1. Consumers will give more attention to sustainably produced food

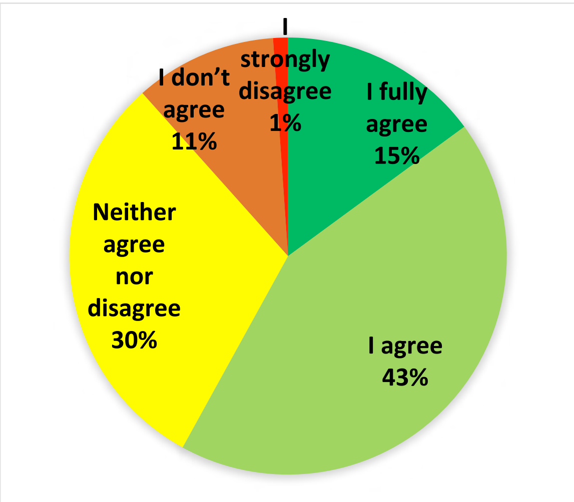


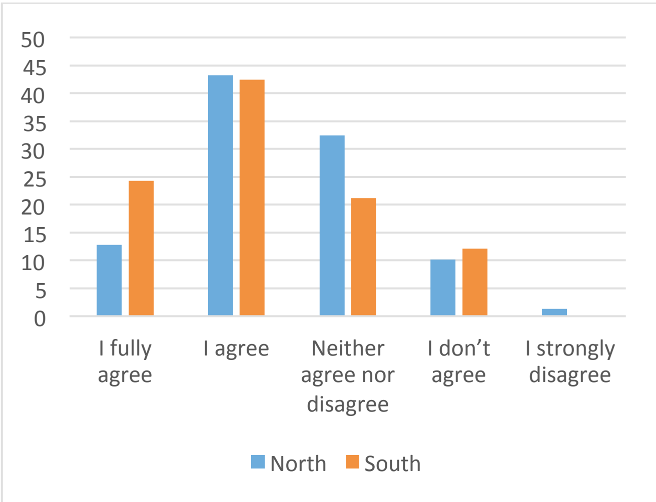


This statement does not resch the convergence betwenn respondents: 47% agree or fully agree with it, 21% don't agree or strongly disagree and 32% are neutral versus the statement. The distributions of answer by area are similar, the largest differences in percentage is for the South respondent that fully agree with the statement with a pergentage higher than North ones, while for the North respondents we fined the opposite situation in 'donìt agree'.

Statements	Prevalent answer	Opportunity vs. Threat	Critical issues and challenges
CONSUMERS	**Yes - No**	☑ - ☒	
Consumers will give more attention to sustainably produced food	Y & N	☑	Despite current trends to purchase low cost instead of healthy food are increasing and represent a critical THREAT, consumers look more sensible to sustainability and origin of food. The OPPORTUNITY to make European Food a standard for sustainability (EC 2020) is concrete but will require efforts in terms of innovation and communication. **CHALLENGES:** What strategies can be implemented to support sustainable practices of food production and promote sustainable food consumption? What tools to inform consumers on sustainability and origin of food?

2. Consumers will give more attention to nutritious and healthy food

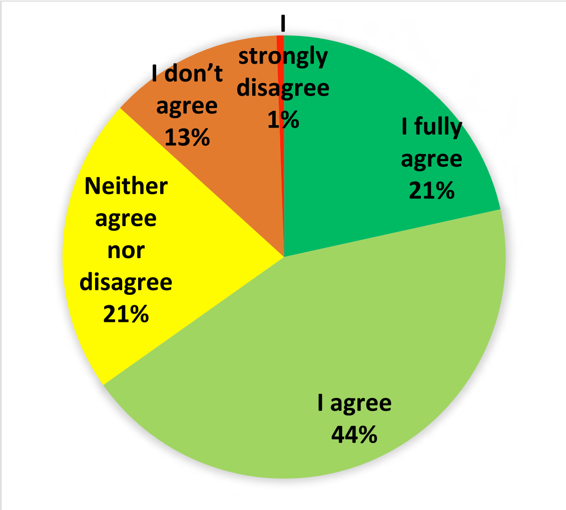


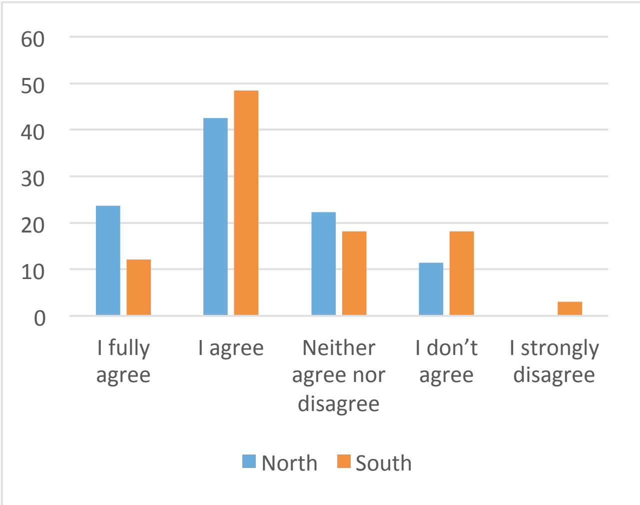


Also for this statement the level of agreement is not so high: 58% of respondents agree or fully agree with it, but the percentage of neutral respondents is high, 30%. Again respondents from North Ned are more neutral *than South ones and respondents from South fully agree with the sattement with a pergentage that is double than the one of North Med respondents.*

Statements	Prevalent answer	Opportunity vs. Threat	Critical issues and challenges
CONSUMERS	**Yes - No**	☑ - ☒	
Consumers will give more attention to nutritious and healthy food	Y	☑	Consumers look more sensible to quality of food. The OPPORTUNITY to change food habits of consumers is concrete but will require efforts in terms of innovation and communication. **CHALLENGES:** What strategies can be implemented to support proper practices of food production/conservation and promote healthy food consumption? What tools to inform consumers on quality and origin of food?

3. Due to the economic crisis, consumers will give attention mainly to the price of food

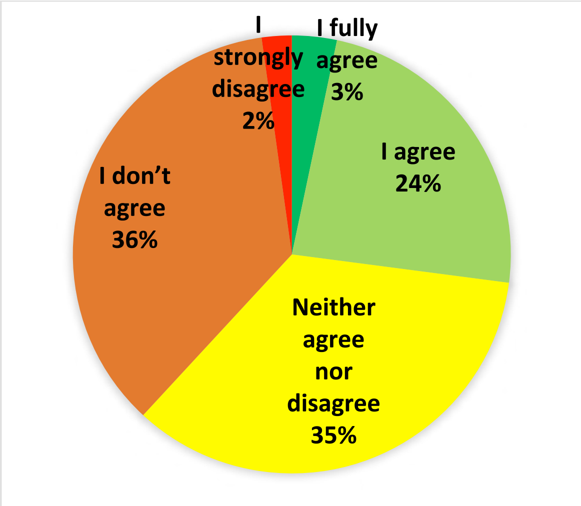


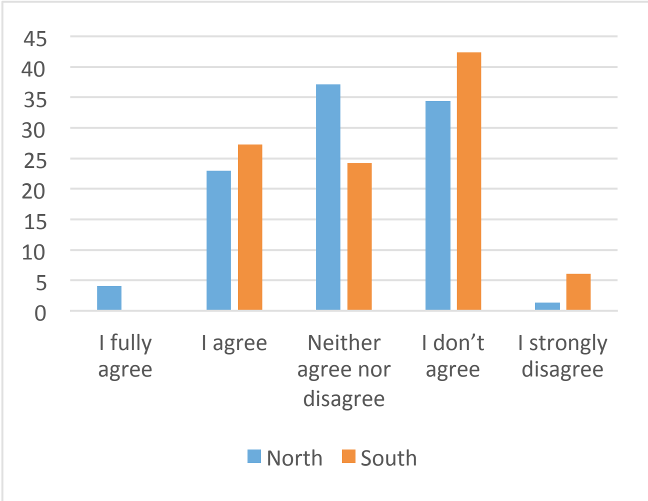


65% of respondents agree or fully agree with this statement, with North med respondents that report a percentage of fully agreement double than South Med respondents. The percentage of neutral respondents is quite large: 21%.

Statements	Prevalent answer	Opportunity vs. Threat	Critical issues and challenges
CONSUMERS	**Yes - No**	☑ - ☒	
Due to the economic crisis, consumers will give attention mainly to the price of food	Y	☒	Current trends to purchase low cost instead of healthy food are increasing in the EuroMed area and still represent a critical THREAT. **CHALLENGES:** What tools can be implemented to promote healthy food consumption? What tools to inform consumers on quality and origin of food?

4. Consumers will give more attention to canned and long-life food

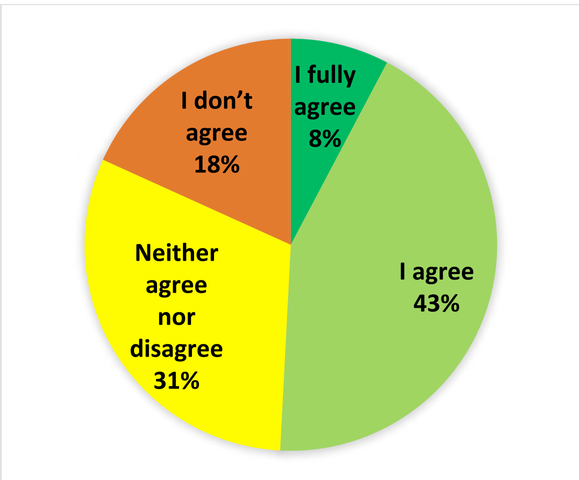


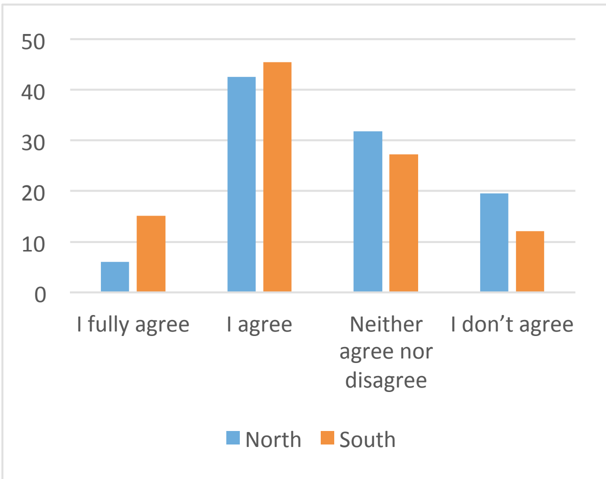


There is not convergence at all for this statement, with a bit larger percentage of disagreement: 38% of respondents don't agree or strongly disagree with it. 35% of respondetns are neutral versus the statement and 27% agree or fully agree with it. Again the percentage of neutral respondents is higher for North Med respondents.

Statements	**Prevalent answer**	**Opportunity vs. Threat**	**Critical issues and challenges**
CONSUMERS	**Yes - No**	☑ - ☒	
Consumers will give more attention to canned and long-life food	Y & **N**	☒☑	Trends to purchase canned and long-life food can be increased due to the COVID emergency and represent a THREAT. The OPPORTUNITY to change food habits, especially concerning fresh food, from common retailers and local suppliers, will require efforts in terms of innovation and communication. **CHALLENGES:** What tools can be implemented to promote healthy food consumption? What tools to inform consumers on quality and origin of food?

5. <u>Consumers will give more attention to rigorous traceability of inputs, production processes and logistics</u>



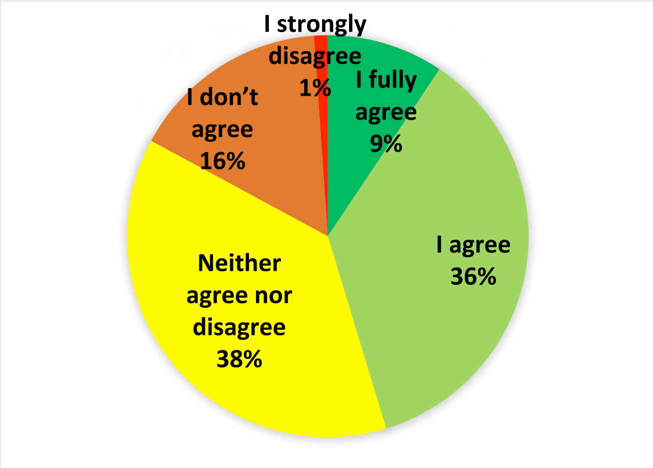


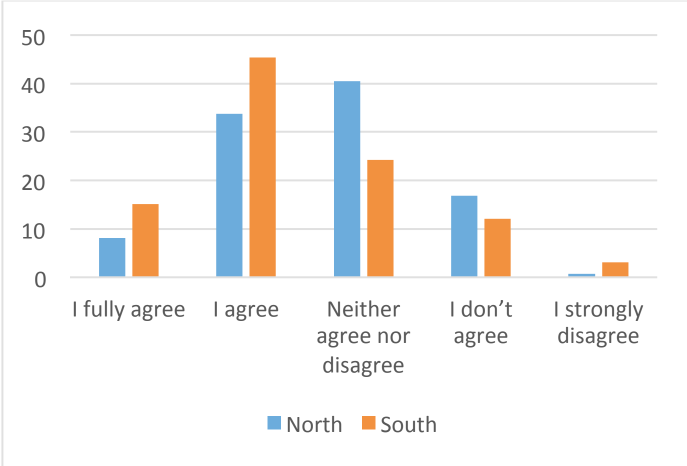
51% of respondents agree or fully agree with this statement; however, 31% are neutral versus it and 18% don't agree with it. The distribution by area are identical.

Statements	**Prevalent answer**	**Opportunity vs. Threat**	**Critical issues and challenges**
CONSUMERS	**Yes - No**	☑ - ☒	

Consumers will give more attention to rigorous traceability of inputs, production processes and logistics	**Y & N**	☑	Consumers are more interested in knowing food origin, quality and production processes. The OPPORTUNITY to change food habits of consumers will require efforts in terms of innovation and communication. **CHALLENGES:** What tools can be implemented to promote healthy food consumption? What tools to inform consumers on quality and origin of food?

6. <u>The Mediterranean diet will be increasingly adopted</u>

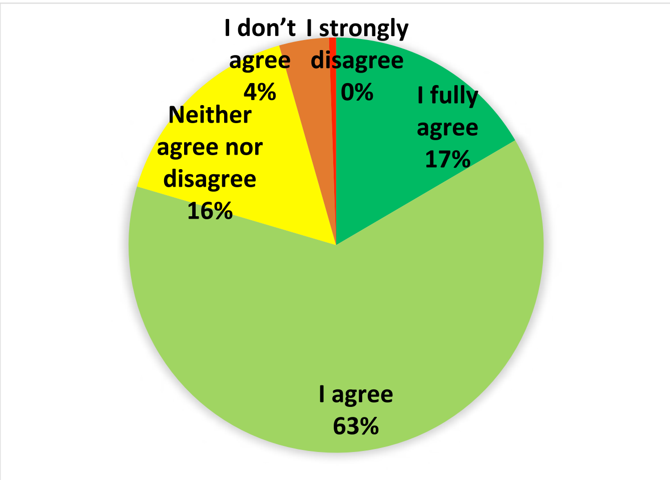


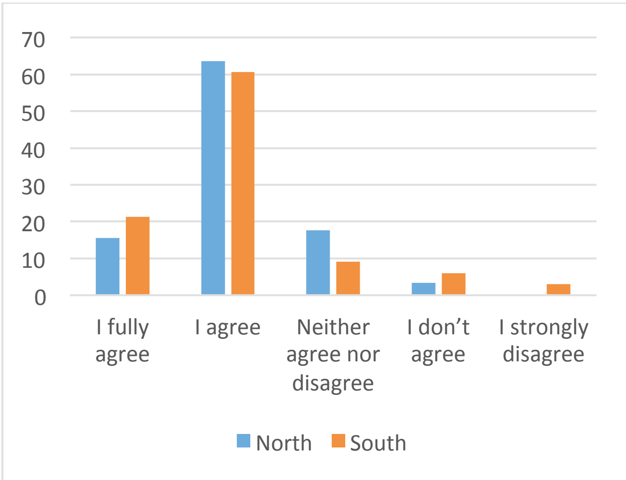


Also for this statement, responses don't converge versus a precise direction. 40% of respondents agree or fully agree with it, while 38% are completely neutral and 17% don't agree or strongly disagree.

Statements	**Prevalent answer**	**Opportunity vs. Threat**	**Critical issues and challenges**
CONSUMERS	**Yes - No**	☑ - ☒	
The Mediterranean diet will be increasingly adopted	**Y**	☑	Given current trends towards high trophic diets and the abandon of Mediterranean diet, this is still perceived as an OPPORTUNITY to promote sustainable and healthy food habits. **CHALLENGES:** What strategies can be implemented to promote the Mediterranean diet? What tools to inform consumers on quality and origin of food?

7. <u>E-commerce and digital sales will grow</u>



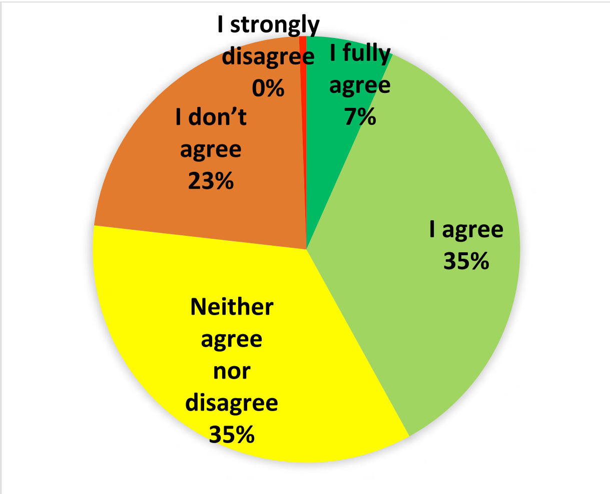


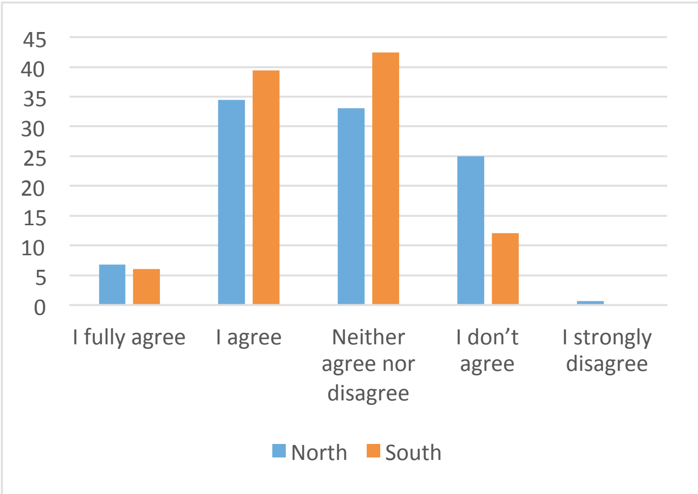
This statements reaches a strong consensus bteween respondents, 80% of them agree or strongly agree with it with the same level of percentages by area.

Statements	**Prevalent answer**	**Opportunity vs. Threat**	**Critical issues and challenges**

CONSUMERS	Yes - No	☑ - ☒	
E-commerce and digital sales will grow	Y	☑☒	Sustainability of e-commerce is controversial and may represent a THREAT, especially concerning the spatial dimension of the supply chain that is often global. Nevertheless, it represents an effective OPPORTUNITY for accessing food sources and eventually supporting smallholders. **CHALLENGES:** How to guarantee sustainability and traceability through e-commerce? What strategies to prevent overexploitation, delocalisation and spill-over effects of globalisation?

8. <u>Major disruption of street markets will occur</u>





There is no convergence in responses to this statement: 42% of respondents agree or fully agree with it, while 35% are neutral versus it and 23% do not agree with it. Respondents from South Med have a bit larger percentages in neutral and 'agree' position, while North Med are mostly equally distributed in the three central positions.

Statements	Prevalent answer	Opportunity vs. Threat	Critical issues and challenges
CONSUMERS	**Yes - No**	☑ - ☒	
Major disruption of street markets will occur	Y & N	☒	The effects on street markets that have been temporary closed has been interpreted as a critical THREAT. Local food suppliers and retailers are the most vulnerable to the crises but could also represent and OPPORTUNITY for short supply networks in terms of healthiness, sustainability and food security. **CHALLENGES:** What policies to support street markets and small growers and retailers as important agents to face new crises? What innovation and tools can help increasing food security through the direct engagement of small retailers?

Summary of consumers pillar

Large consensus versus 'agree' position	Not convergence and doubtfull positioning
✓ Due to the economic crisis, consumers will give attention mainly to the price of food ✓ Consumers will give more attention to rigorous traceability of inputs, production processes and logistics (not strong consensus) ✓ E-commerce and digital sales will grow	✓ Consumers will give more attention to sustainably produced food ✓ Consumers will give more attention to nutritious and healthy food ✓ Consumers will give more attention to canned and long-life food ✓ The Mediterranean diet will be increasingly adopted ✓ Major disruption of street markets will occur

The PRIMA programme is an Art.185
initiative supported and funded under Horizon 2020,
the European Union’s Framework Programme for Research and Innovation.