

Connecting Thematic Networks as Knowledge Reservoirs towards a European Agricultural Knowledge Innovation Open Source System



TASK 2.4 Multi-actor approach

Summary

Task description:

Task 2.4 (M1-M8) focusses on the multi-actor approach (MAA) at the conceptualisation, initiation, execution, and post-execution phase of TNs. Task 2.4 investigated the number and the type of actors (sector, organisation, geographical spread, ...) Additionally, it looked for the ways the different actors are approached, involved, and engaged in a TN, how they deliver input, how they benefit in the short, medium and especially long term.

Following activities were carried out:

- Desktop study: the multi-actor (MA) involvement was quantitatively and qualitatively analysed based on the information available on the TN websites and available final reports;
- Face-to-face (F2F) interviews: Qualitative semi-structured interviews were held with the key partners and the actors of the TNs to further refine the desk top study;
- Surveys were carried out in order to complement the results of the F2F interviews.

In total 28 TNs were investigated through a desk-top study, oral and written surveys to map best practices and methodologies for the MAA.

In short following main conclusions can be drawn:

- 1) The main type of actors that are engaged in TN consortia are academic institutions and research organizations are participating most in TNs, followed by enterprises, associations, advisory centres and applied research institutions with an advisory role, primary producers and government institutions. Media, NGO, consumers, and dedicated educational institutions are rather underrepresented. These groups of actors are equally important in the AKIS and should be more involved in consortia in frame of the MAA; especially educators facilitators play a major intermediary role in the uptake of results. Innovation brokers and educational institutions (e.g. vocational schools, advisory training) should be much more involved in consortia and through participatory activities.
- 2) Partners in TNs are mostly from Western Europe (France, Belgium, The Netherlands, Germany), followed by Southern Europe (Italy, Greece) and Northern (UK). Countries outside Europe that have participated in TNs till now are Israel, Norway, South Africa, Ukraine, Switzerland, and Tunisia. Eastern European countries should be more involved in TNs as to bridge the divide between Eastern and Western Europe in terms of innovation in agriculture and forestry.
- 3) The biggest part of the total TN budget goes to partners in Belgium, Germany, Spain, France, and the UK. This means that most of these countries take the lead in coordinating TNs or WPs of TNs. Other countries should be stimulated to do so as to maintain the balance in regional innovation.
- 4) Only half of the TNs are 100% demand driven, meaning that half of the TNs are not oriented to the end users' needs, farmers and foresters. Therefore there is a need for more involvement from end users, in particular farmers, foresters and advisors, during the project, in particular during the conceptual phase. This may e.g. be done through consultations, surveys and advisory boards;





- 5) The farmers or foresters who participate in TN project activities are mainly a selected community of innovators. Farmers are less involved in the conceptual phase than researchers, advisors, farmers associations, and facilitators. There is a need to involve more early adopters and reach the early majority for a project to be successful. Linking to OGs and local end user groups is useful. Farmers should be approached in an informal setting and an environment that creates trust. Project activities to involve them should be farmer oriented such as study visits and as side events to their own existing initiatives such as fairs;
- 6) There is no one size fits for all. The MAA depends on the subject, theme and value chain. Therefore a range of strategies can be applied which must take form during the conceptualization phase, preferably with the involvement of all actors, in particular end user groups, advisors, farmers and foresters. Moreover, the MAA is a dynamic process and may change and adapted over the course of the projects as new insights may occur and roles and functions may be redefined; a wide range of MA participatory activities are being organized within TN projects such as workshops, cross exchange visits, demonstration events, case studies, and trainings.
- 7) The MAA is considered as key to contribute to content creation of the knowledge reservoirs produced by the TNs, but also to content for advisory systems and networking; according to the EIP AGRI end users of MA projects are considered to be specifically farmers and foresters, and potentially advisors or innovation brokers as key intermediaries between the research and the practice. TNs also consider farmers associations, policy-makers, researchers, and facilitators as important end users groups. The focus on farmers, forester and advisors as the users of practical oriented knowledge in the field, should be clear form the conceptualization till the end of the project. The involvement of many types of actors in the consortium does not guarantee as such better involvement of all actors to enhance knowledge exchange and impact. Impact can also be achieved by involvement of the actors, in particular end users, in regional or local innovation hubs or networks and the use of facilitators. The facilitator model to involve local end user groups was successfully deployed in several TNs such Hennovation, Sheepnet and Winetwork;
- 8) The MAA of TNs should link to European, national, regional and local level so as to be fully efficient. Therefore MAA networks should be horizontally and vertically integrated. This can be achieved by the involvement of e.g. European umbrella organizations, national rural networks (NRNs), and local networks in dedicated TN activities during the lifetime of the project;
- 9) Depending on the topic of the TN (water management, plant protection...), the relevant regulatory authorities (water authorities, plant protection authorities...) should be also involved;
- 10) A post-project phase is needed to evaluate the outcome and uptake of results by the end user, in particular farmers, foresters, and advisors. Further reflection is needed on how to evaluate this and which type of evaluation methodologies and indicators should be used.

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List of abbreviations and acronyms

AgriSPIN: Thematic Network – Space for Innovation in Agriculture

AKIS: Agricultural Knowledge and Innovation Systems

ARC: Agricultural Research Center AUA: Agricultural University of Athens

EC: European Commission

EIP-AGRI: Agricultural European Innovation Partnership EUFRUIT: Thematic Network – The European Fruit Network EU PiG: Thematic Network - EU PiG Innovation Group.

EURAKNOS: European Agricultural Knowledge Open Source

EuroDairy: Thematic Network - An international network to increase the economic, social, and

environmental sustainability

EV-ILVO: Eigen Vermogen van het Instituut voor Landbouw- en Visserijonderzoek

FERTINNOWA: Thematic network – Transfer of INNOvative techniques for sustainable WAter use in FErtigated crops

GLZ: Grünlandzentrum (Center of Grassland, Lower Saxony, Germany)

Hennovation: Thematic Network - Practice-led innovation supported by science and market-driven actors in the laying hen and other livestock sectors

H2020: Horizon 2020

IFA: Innovation for Agriculture

KR: Knowledge Reservoir LFG: Leap Forward Group

MA: Multi-Actor

MAA: Multi-Actor Approach

MS: Member States

NAK: Hungarian Chamber of Agriculture PSKW: Proefstation voor de groenteteelt vzw

RAU: Royal Agricultural University

SCAR: Standing Committee on Agricultural Research SCAR AKIS SWG: SCAR AKIS Strategic Working Group

 $SMART-AKIS: European\ Knowledge\ and\ Innovation\ Systems\ (AKIS)\ towards\ innovation\ driven\ research$

in Smart Farming Technology

Sheepnet: Thematic Network - Sharing Expertise and Experience towards Sheep Productivity through

NETworking

TN: Thematic Network

WINETWORK: Thematic Network – Network for the exchange and transfer of innovative knowledge between European wine-growing regions to increase the productivity and sustainability of the sector





1. Objectives

This deliverable report focuses on how the past and running H2020 Thematic networks (TNs) implemented the multi-actor approach (MAA). This deliverable will report the outcomes of task 2.4 carried out in the framework of the EURAKNOS thematic network. EURAKNOS¹ will boost compiling knowledge for practice by intensifying interaction between various agri-food and forestry networks, thereby maximizing the outputs for practitioners. WP2 is looking for best practices and methodologies of different aspects of TNs regarding i) the content of the knowledge produced, ii) the storage of the knowledge, iii) communication and dissemination, and iv) the MAA. D.2.4 will report in more detail on the practices implemented by running and past TNs (28) to implement the MAA, and the degree of diversity (multiple actors) of the TN consortia, the actors' type (sector, organization, geographical spread) and role. Additionally, this deliverable will report on the methodologies and pathways used to approach the different actors, how to involve, and to keep them engaged throughout the different phases of the project. This task gained more insights into how the different actors delivered input and how they benefit in the short, medium and especially long-term (conceptual, execution and post-project phase).

The outcomes of this deliverable will feed into Task 2.5, "Exchanging, and compiling know-hows of TNs" and Task 3.4 on the "MAA for a High Impact Knowledge Reservoir (HIKR)."

¹ www.euraknos.eu





2. Methodology

2.1. Benchmark criteria

The criteria for the evaluation and benchmarking of best methodologies and practices for the implementation of the MAA in H2020 TNs have been selected to meet the requirements of the output of Task 2.4 fully, as described in the proposal of EURAKNOS. The set of research questions enables to investigate in which ways the different actors are approached, involved and engaged in a TN during the conceptual, initiation, running and finalization phase, how they co-create, deliver input, and how they benefit in the short, medium and especially long term of the results of the project.

The selection of these criteria is based on:

- 1. The outputs of a preliminary workshop held during the EURAKNOS kick-off meeting (Ghent, January 2019)
- 2. The EIP AGRI brochure on MAA H2020 projects2
- 3. The 4th mandate report of the SCAR SWG AKIS3
- 4. The input needed for Task 2.5, Exchanging, and compiling know-how of TNs and Task 3.4 on the MAA for a High Impact Knowledge Reservoir (HIKR).

This deliverable bases on the data collected from the 28 approved TNs as on 1 January 2019, the EURAKNOS TN excluded. The required data were collected in multiple ways:

- 1. Task members performed a desktop study based on the information made available by the TN websites. These studies aimed at analyzing the MA structure of the TNs and the involvement of each type of actor;
- 2. Face-to-face (F2F) interviews: qualitative interviews have been held with the key partners and the actors of the TNs to refine the desk-top study further;
- 3. An on-line survey was sent to different TNs to receive further detailed information on the different aspects of the applied MAA;
- 4. In depth review of the Final reports of 8 completed TNs.

³ Preparing for Future AKIS in Europe (2019) Standing Committee on Agricultural Research (SCAR) 4th Report of the Strategic Working Group on Agricultural Knowledge and Innovation Systems (AKIS)



² https://ec.europa.eu/eip/agriculture/en/news/brochure-"multi-actor-approach"



2.2. Desktop study

2.2.1. Desktop study design

In order to map and better analyze the MAA, the Task 2.4 leader GLZ, supported by the WP2 leader and T2.4 members, selected a series of research topics focusing on:

- 1. the actors' analysis
- 2. the co-creation of knowledge
- 3. the involvement of actors during the different phases of a TN

A detailed overview of the desktop setup is included in the *Annex 1: Desk Top Study template*. Excel spreadsheets were used to collect and process the data resulting from the desktop study. A guideline on how to fill in the desk top study was developed assuring a uniform approach by the different actors. This document sums up the criteria selected and what type of information was required for each criterium.

2.2.2. Desktop study inputs

A desktop study was performed for the 28TNs running on 1 January 2020, the EURAKNOS TN excluded. The desktop study based on:

- 1. Data and information publically available at the TN websites
- 2. Data and information publicaly available at the CORDIS website

2.2.3. Processing and analysis of the data

Data resulting from the desktop study was collected and processed in excel.

2.2.4. Work allocation

Regarding the organization and division of the work to be performed in the frame of this task, task members and WP2 members were assigned 1 to 3 TNs to perform the desktop study. Moreover, WP2 members, initially not assigned to T2.4, have provided their support in the completion of the desktop study to accelerate the acquisition of data and information and ensure a high quality of results. In this way, an overlap between the different tasks was avoided. The overall TN allocation based on the experience and TN related-knowledge of the participants. More detailed information regarding the work allocation can be found in the Mid-term report.

2.3. Face-to-face interviews

2.3.1. Interview design

Whereas the desktop study focused on collecting the publicly available information related to the TNs' implementation of the MAA, the F2F interviews strived to retrieve missing and more indepth information. A questionnaire was provided to guide the F2F interviews and assure homogenity of the interviews' run and topics discussed. The structure of this F2F questionnaire is in line with the main domains of expectations pursued in frame of looking to best practices and methodologies related to the MAA within TNs:

✓ A better understanding on best practices methodologies to exchange knowledge between the different actors and more in particular ways to involve different types of actors and their



roles, with the focus on end users, farmers, foresters and advisors, in different phases of TNs, the conceptual, implementation and post-project phase.

✓ A collective reflection on the MA structure, as it is today, and the sustainability of the TNs

The questionnaire for the semi-structured interviews consisted of both open-ended questions and closed questions. The F2F questionnaire is included in *Annex 2*. F2F interviews were either carried out through Skype or physically, allowing in-depth discussion.

2.3.2. Selection of interviewees

The coordinators of the 28 TNs were contacted and asked for permission to carry out the F2F interviews and to provide the contact details of the consortium members most in place to answer the MAA related questions.

2.3.3. Work allocation

The number of interviews has been allocated on an equal basis to each participant of the task, using the participants' capacity to conduct these interviews (feasibility, e.g. geographical proximity, existing contacts, ...). More detailed information regarding the work allocation can be found in the Mid-term report.

2.4. Online survey

2.4.1. Online survey design

Besides the F2F interviews or oral survey, an online written survey was designed, allowing interviewees to provide more in depth information which would be difficult providing during an oral survey (*Annex 3*). SurveyMonkey®, a very convenient online survey tool, was used to design the survey and for the first processing steps.

2.4.2. Selection of interviewees

The 28 interviewees performing the F2F were also asked to complete the online survey. In total, 15 out of the 28 interviewees completed the online survey.

The link to the online questionnaire was provided at the time the interviewees were contacted to make an appointment for the F2F interviews. Depending on the interviewee's preference, the online survey was completed before or after the F2F interviews.

2.4.3. Processing and analysis of the data

SurveyMonkey® allowed the collection of the data uniformly. Further processing of the data and analysis was perfomed using Excel.

2.4.4. Work allocation

PSKW designed the questionnaire in SurveyMonkey® and carried out a quality check of the dataset. Quantitative analysis of the data was carried out using basic statistics in Excel. More detailed information regarding the work allocation can be found in the Mid-term report.



2.5. Data quality assurance

Intensive quality checks were aquired as task 3.4 will built further on the results of t2.4 to formulate guidelines for TNs to achieve more impact in terms of uptake of results in the field fostering innovation in agriculture and forestry.

Several quality checks were performed during the different stages of the survey process, starting at the preparatory phase of the questionnaires and ending at the processing phase of the collected data and the data analysis phase. Quality checks were performed at different levels:

1. Quality check at consortium level:

Both the questions in the desktop survey and the F2F interviews were validated in detail by all WP2 members through mailings and skypes. The entire EURAKNOS consortium was asked for feedback. A majority of the EURAKNOS consortium members take or took active roles in TNs, either as participant or coordinator. As such, they belong to the primary target group of end user groups defined by the EURAKNOS project, who will benefit from the results of the project in the current or future TNs and spread the EURAKNOS results amongst their networks. Therefore, their feedback was considered essential for the internal quality check.

2. Quality check at KIP level:

The results of Task 2.1 to task 2.4 were validated during a EURAKNOS workshop (Budapest, 11-13 September 2019) in the frame of task 2.5 through the engagement of the Knowledge Innovation Panel (KIP). The KIP consists of different actors, including representatives of TNs that are not included in the EURAKNOS consortium and end user groups such as farmers, foresters, and advisors.

Important remarks:

- 1. The option "Others" was included in all questions as a possibility to answer. In this way, it was assured that interviewees could provide all possible inputs/answers to the questions. As the option "others" was only rarely chosen, this indicated that the quality of the questionnaire was sufficiently addressed.
- 2. Surveys analysis and TN degree of completion: We analyzed if key factors that were inherent to the different TN and the responses obtained from the different questions were correlated. Specifically, we tested how the degree of completion of the TN affected the different answers. Whenever relevant these correlations where shown.

2.6. Review of the final reports

More in depth information regarding the methodologies used, experiences related to MAA was collected from the final reports of 8 TNs that reached the status of completion at the moment of completion of this deliverable. Reports were asked to the TNs coordinators by mailing. Final reports of the following TNs were studied:

- 1. FERTINNOWA
- 2. SHEEPNET
- 3. SMART-AKIS
- 4. AGRIFORVALOR
- 5. Winetwork
- 6. EU-FRUIT
- 7. HENNOVATION
- 8. EURODAIRY





2.7. Data maintenance

The data will be stored and maintained on the Sharepoint System of the UGent server as described in the Data Management Plan (DMP) (D1.7 Revised vision of the DMP). Data have been collected in the frame of identifying best practices and methodologies in the relation of the MAA applied by TNs. These data will serve as an input for WP3 as a basis for the formulation of the technical guideline to be used by TNs.

2.8. Limitations of the methodology

The methodology described has some limitations:

- At the moment of the mapping, only 8 out of the 28 considered TNs were completed, this may
 not give an accurate view on how TNs are dealing with the MAA. For example, TN websites
 may not have yet all materials and/or information on the MAA in place and/or some MAA
 activities may not have taken place.
- 2. Out of 28 TNs, only 16 TNs have completed both the on line surveys and F2F interviews. F2F interviews were performed for 27 out of the 28 TNs. Legumes Translated could not participate in the F2F interviews as the interview could not be executed on time to include their results in the final analysis.
- 3. While most of the variables in the interviews were qualitative, through the surveys, mostly quantitative data were collected.

To deal with the above mentioned limitations to the extent possible, a combination of different ways to collect current MAA practices was used (desk top study of the TN website, oral interviews, surveys, and study of the final reports when available).



Table 1 Thematic Networks (TNs) and their degree of completion, the completion of the desktop study, face-to-face (F2F) interviews, online survey and final report review

H2020	Degree of TN	Desktop	Face-to-face	SurveyMonkey	Final report
Thematic	completion	study	interviews		
network					
AGRI-SPIN	100%	Х	Х		Х
HNV-Link	97%	Х	Х		
SMART-AKIS	100%	X	Х		Х
AGRIFORVALOR	100%	Х	Х		Х
AFINET	72%	X	X		
Inno4Grass	72%	X	X		
SKIN	78%	X	X	X	
ENABLING	39%	Х	Х	X	
NEWBIE	39%	X	Х	X	
Suwanu Europe	8%	X	Х	X	
OK-Net-Arable	100%	X	X	X	Х
FERTINNOWA	100%	Х	Х	X	Х
WINETWORK	100%	X	Х	X	Х
EUFRUIT	97%	Х	Х	X	
CERERE	75%	X	Х		
INCREDIBLE	48%	Х	Х		
PANACEA	39%	X	Х		
INNOSETA	25%	X	Х		
Best4soil	14%	X	X	X	
Legumes	8%	X			
Translated					
Nutriman	14%	X	X	X	
HENNOVATION	100%	X	X	X	Χ
EuroDairy	100%	X	X	X	Χ
4D4F	97%	X	X	X	
EU Pig	73%	X	X		
Sheepnet	78%	X	X		
OKNet EcoFeed	39%	X	X	X	
Disarm	6%	X	X	X	
Total nr.		28	27	15	8



3. Results

3.1. Multi-actor approach (MAA)

3.1.1. Background

3.1.1.1. Concept of the MAA

The MAA has been developed under the Horizon 2020 during the 2nd mandate of the SCAR Strategic Working Group (SWG) on Agricultural Knowledge and Innovation Systems (AKIS)⁴ 2nd. Under the following mandates, the MAA was further refined according to the discussions within the SCAR SWG AKIS group and the experiences from the project coordinators applying the MAA.

The MAA aims to bridge the divide between the research and the practice by making innovation more demand-driven in this way, increasing the project's impact. However, the MAA is more than just widely disseminating the project outcomes, or listening to the views of a stakeholders' board. *MA projects should ensure the active involvement of various actors, including as partners of the project consortium.* In other words, MA projects bring different actors together in particular end-users and multipliers of research results such as farmers and farmers' groups, advisors, enterprises, NGOs, and others, so offering the opportunity for scientists and farmers to create solutions together. The involvement of the various should be done all along with the project: from the conceptualization and initiation to the execution and post-execution phase.

This MAA also involves looking at different dimensions, including technical, organizational, and social aspects which help to bridge the gap between science and practice, applying a 'systems approach.' The MAA is inspired by the interactive innovation which means collaboration between various actors to make the best use of complementary types of knowledge (scientific, practical, organizational, etc.) in view of co-creation and diffusion of solutions/opportunities ready to implement in practice⁶. The MAA is also fitting in the concept of an EU wide EIP-Agri network linking actors for communication, partnering, dissemination, knowledge flows and collecting practice needs in an EU wide AKIS.

3.1.1.2. Aims of the MAA

In total, the EU has allocated around one billion euros to fund around 180 MA projects in the field of agriculture, forestry, and rural development, of which around 40 thematic networks. Till the date of completion of this deliverable, 34 TNs have been initiated, of which 28 (EURAKNOS excluded) were running on 1 January 2020 were being investigated in this study (see *Table 1*).

According to a recent report⁷ of the SCAR SWG AKIS projects⁸ claiming being MA should ensure:

1. *Demand-driven innovation* as a sort of guarantee for the impact of research, if the project succeeds in developing practical solutions

⁸ https://ec.europa.eu/info/system/files/food-farming-fisheries/key_policies/documents/report-preparing-for-future-akis-in-europe_en.pdf



⁴ https://scar-europe.org/index.php/akis

⁵ https://ec.europa.eu/eip/agriculture/sites/agri-eip/files/eip-agri_brochure_multi-actor projects 2017 en web.pdf

⁶ https://ec.europa.eu/info/system/files/food-farming-fisheries/key_policies/documents/report-preparing-for-future-akis-in-europe_en.pdf

⁷ https://ec.europa.eu/info/system/files/food-farming-fisheries/key_policies/documents/report-preparing-for-future-akis-in-europe_en.pdf



- 2. Result-based inclusion of tacit and practical knowledge in a balanced and focused way, beyond purely scientific inputs from various scientific disciplines
- 3. Resulting applications which are fit for the local levels, thanks to the inclusion of the local practitioner and contexts
- 4. Real added value for the practice by avoiding overlap during proposal drafting with existing best practices and research done already
- 5. An efficient and effective dissemination practice, both at the EU level as at local/regional/national level, to spreading knowledge ready for application
- 6. A quicker uptake of research and innovation results, thanks to the co-creation and coownership of end-users of project results



Figure 1 Infographic "How to build a successful Horizon 2020 multi-actor project?" ⁹

⁹ retrieved from https://ec.europa.eu/eip/agriculture/sites/agri-eip/files/eip-agri_brochure_multi-actor_projects_2017_en_web.pdf





3.1.2. Definition of the MAA as interpreted by the TNs

In the frame of the F2F interviews, TNs were asked about their interpretation of the MAA definition, resulting in a broad range of answers. Some TNs used directly the definition findable in H2020 or EIP AGRI documents, for example, Eurodairy, OK Net Arable, EU-Fruit, SMART AKIS. SMART AKIS used one of the definitions of EIP-AGRI to define its features: focus on end-user needs, the involvement of key

actors with complementary types of knowledge and roles along with the project added value, practical knowledge for dissemination' and 'the direct involvement of all key actors within the agricultural domain, namely farmers, advisors, researchers, industry and media.'

Likewise, some TNs gave their own MAA definition. Winetwork defined MAA as "co-creation of knowledge among all participants." NUTRIMAN defined MAA as "all actors participate in innovations groups during the whole project period, to identify knowledge gaps, to test knowledge at farms and to contribute to new practice abstracts during and by the

"All TNs understood the MAA as a mix of different types of actors with different backgrounds, profiles and expertise. The MAA structure and different types of actors and their roles differ from project to project depending on the subject, theme, and sector they engage in."

end of the project period." OK-Net EcoFeed "is characterised by a MAA on two levels, the first one at EU level with the five work packages and the second one in the 11 regional innovation groups where organic farmers, feed processors, breeders, researchers, value chain groups and farmer associations cooperate. As such the thematic network OK-Net EcoFeed fully adopts the interactive innovation model of EIP-AGRI".

In any case, for all TNs, MAA is understood as a mix of different types of actors with different backgrounds (profiles and expertise). The MAA structure, the different types of actors, and their roles differ from project to project, depending on the subject, theme, and sector they engage in. For example, INCREDIBLE involved "relevant actors of each of the five product categories (mushrooms, nuts, resine of pine trees, cork, aromatic)." Or for EU-PIG, the MAA "describes a mixture of advisors, researchers, industry specialists or experts on building an environmental precision, experts on genetics precision." In other words, the composition of the type of actors varies from project to project.

Horizon 2020 MA projects should involve various actors throughout the different phases of the project, starting from the conceptualisation of the project to the post executional phase. Part of the evaluation in task 2.4 focused on the involvement of the different actors throughout the different phases of the TNs.

3.1.3. MAA in the conceptual phase

During the conceptual phase of a TN, the involvement of distinct actors or groups of actors can be situated at different levels:

- 1. At the consortium level
- 2. At the advisory board level
- 3. At the stakeholders/other actors' level



3.1.3.1. Consortium members

A. Type of actors

Based on the results of the desktop study, it was found that the TN consortia count on average 15 consortium members with the number of members varying from 7 (Hennovation) to 23 (FERTINNOWA). In the case of the FERTINNOWA project, it has to be noted that the FERTINNOWA project received an EU grant of 3 million euros, whereas the general grant for the other TNs was around 2 million euros. The analyses of the consortia composition do not take into account linked third parties as in some cases, it was too difficult to trace these back. Based on the collected data, different types of actors involved in TN consortia were distinguished. In total main categories were defined:

- 1. Primary producers: agricultural practitioners such as farmers, foresters, farmers' groups, farmers associations (COPA COGECA, associations, groups at the national regional level, cooperatives)
- 2. Advisors: independent and impartial advisors or advisory bodies, extension services, chambers of agriculture, consultants, innovation support centres, innovation support services; all with targeting the specific situation of the farm and the farmer with (mostly one-to-one) advice that is not commercially linked
- 3. Applied research: applied research institutes, practice centres, technically oriented centres, (may have an additional advisory task but the main focus is research)
- 4. Consumer organisations, including organisations at national, regional and international level
- 5. Academic institutions: universities and organisations focused on research (no substantial advisory function).
- 6. Dedicated educational Institutions: others than universities such as technical schools up until secondary level, training institutions, organisations advising groups,
- 7. Enterprises: small, medium and big businesses, including multinationals, SMEs.µ
- 8. Government institutions: regional, national, and local authorities and/or agencies including regulatory agencies and/or bodies
- 9. Media: press including journals, agricultural magazines, television, social media, ...
- 10. Associations & federations: all associations, with exception from farmers associations Federations: umbrella organisations: national, European or international organisations, umbrella organizations of associations
- 11. NGO: all NGOs except for umbrella organizations of associations and consumer organisations

For the study, categories 2 and 3 were taken together as applied research institutions may have a specific advisory task (e.g., Teagasc).



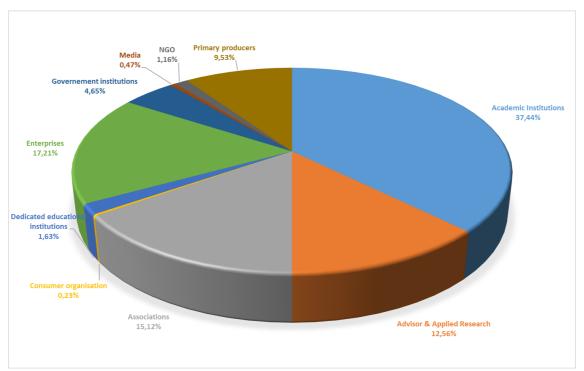


Figure 2 Spread of type of actors (%) in the TN community (28 TNs) based on data retrieved from TN websites and CORDIS website

Figure 2 provides an overview of the type of actors involved in TN consortia. This breakdown was based on data retrieved from the respective TN websitesCORDIS website. Actors were assigned to one of the categories listed above. Figure 2 shows that academic institutions take 37,44% of the total number of 430 consortium positions (total of all consortium members of 28 TNs), followed by enterprises (17,21%) associations (15, 12%) and advisory centres and applied research institutions with an explicit advisory role (12, 65%). Primary producers participate in TN consortia with a share of 9,53%, as compared to all actors, while government institutions with 4,56%. Media (0,47%), NGO (1, 16%) consumers (0,23%), and dedicated educational institutions (1,63%) are rather underrepresented.

The compositions of the 28 TN consortia are shown in more detail in figure 3. Although the H2020 working program explicitly refers to the involvement of end-users such as farmers and foresters, 7TNs (Winetwork, Sheepnet, Newbie, Incredible, HNV-link, Hennovation, and AFINET have not included farmers or foresters, groups or their representatives, or advisory centres and/or applied research institutions with an advisory role (Smart AKIS, Panacea, OK-NET Ecofeed, Incredible, Hennovation, Disarm) in their respective consortium.

When focusing on research related actors, Figure 3 shows that all TN consortia include academic institutions, universities, or organizations/institutions involved mainly in research. Other well represented actor types are associations (24TNs), enterprises (26 TNs), and government institutions (14 TNs). Educational institutions take part in only 5 consortia (SKIN, Eurodairy, EU-PIG, Agriforvalor, and 4D4F). Only a few consortia include consumer organizations (1TN, SUWANU Europe), media (2TNs, Best4Soil, SKIN), and NGOs (3 TNs, Agrispin, HNV-link, OK-Net-Arable).

Interestingly, during the F2F interviews, 43,75 % of the TNs (data not shown) indicated that they had a facilitator in the consortium. From the interviews, it was not clear which type of actor within the consortium would take up this role.

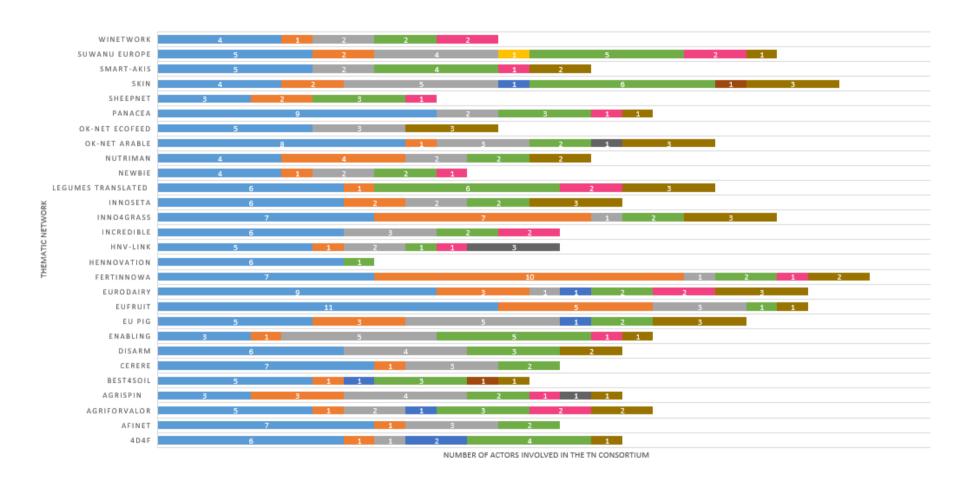


Figure 3 Overview of the composition of the Thematic Network (TN) consortia according to the number of different type of actors (per TN; data retrieved form the TN websites)



B. The TN community

In total, the 28 TN consortia count for 430 positions (data not shown). The 430 TN consortium positions are, however, taken by 300 different actors, already indicating that a considerable share of the actors are involved in multiple TN consortia. In further discussion, the group of 300 actors will be referred to as the "TN community." Figure 4 shows that beneficiaries categorised as "Advisor and applied research organizations" are mostly active in multiple consortia as their average number of participations in consortia lies at 3,8 involvements. This is different for the beneficiaries categorised in the category "Governement institutions." Although governemental institutions are active in 14TN consortia (figure 3), it is shown in figure 4 that each of these governemental institutions are involved in only 1 TN consortium.

Total number of TN participations per category divided by the total number of participants per category

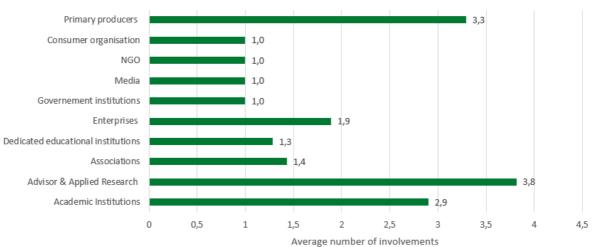


Figure 4 Total number of TN participations per category divided by the total number of participants per category

Figure 5 provides an overview of the members of the TN community involved in more than 2 TN consortia. Stichting Wageningen Research plays an active role in 12 TN consortia, closely followed by Teagasc¹⁰ (11TN participations). The farmers' group Zuidelijke Land- en Tuinbouworganisatie vereniging (ZLTO)¹¹ is partner in 9 TNs, followed by the Enterprise Landbrug & Fodevarer F.M.B.A¹². (8 participations), the Danish Agriculture and Food Council.

¹² https://agricultureandfood.dk/



¹⁰https://www.teagasc.ie/

¹¹ https://www.zlto.nl/home



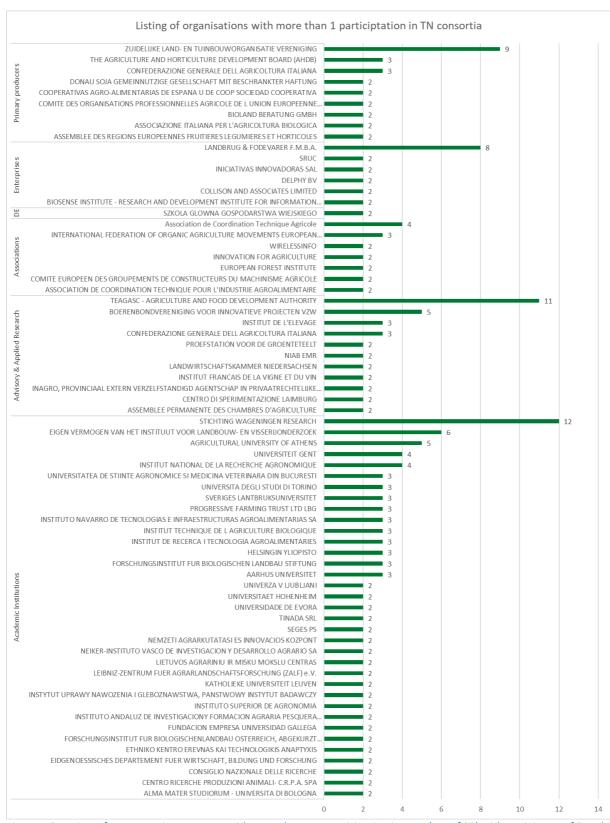


Figure 5 Overview of TN consortium partners with more than one participation in a TN (out of 28) with a minimum of 2 and a maximum of 12 participations (12) (De refers to Dedicated Educational institutions)



C. Involvement of end-users

In general, TN consortium members have different backgrounds, expertise, and experiences. *The complementarity of the engaged actors' expertise and experiences is key in the concept of TNs "exchanging knowledge on best practices and methodologies," also in the conceptual phase of the TN.* At this stage, the involvement of the farmer, forester, and advisor is quite important as the project should meet the demands of the end-user.

When asked to the TNs (results based on online surveys of 11 TNs) if they involved actors in the conceptual phase, all responding TNs answered that researchers were involved, 73% of the responding TNs included advisors, 36% farmers, and 36% facilitators. Policy-makers, students, and consumers were not involved at all.

This breakdown also reflects the engagement of the different actors' type level: at the consortium and also advisory board level.

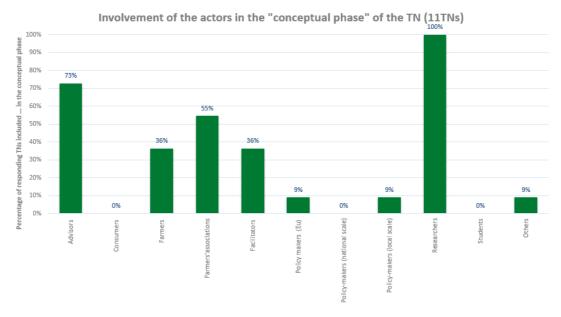


Figure 6 Percentage of TNs that involve a particular type of actor in the conceptual phase (based on the written survey of 11TNs, multiple answers possible)

According to the EC^{13} the most important end-users of TN results are the farmer and the forester. However, intermediaries can also be an important target group as they are crucial not only in capturing the needs but also in the dissemination process towards the farmer and forester.

F2F interviews revealed that TNs have defined -whom they estimate- potential end-users, in particular farmers, farmer associations, advisors, extension services, policy-makers, researchers, and advisors, from the conceptual phase onwards. According to 87,5% of the TNs, the target groups that will take up the results of the project have already been well defined in the project proposal.

¹³ https://ec.europa.eu/info/system/files/food-farming-fisheries/key_policies/documents/report-preparing-for-future-akis-in-europe_en.pdf



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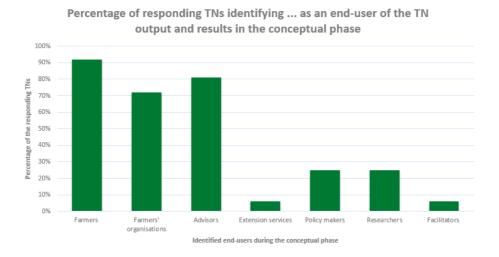


Figure 7 Identification of the type of potential end-users, farmers' organisations, advisors, extension services, policy makers, researchers, and facilitators, of the TNs outputs and results defined in the original TN proposal (based on 14 responding TNs)

"MAA IS A DYNAMIC PROCESS": Most of the TNs (87,5%) consider that they had a clear definition of what stands behind the term « multi-actor » in their TN proposal. Most TNs representatives interviewed affirm that the potential end-users were well determined in the proposal.

C.1. Farmer/Forester

As shown in figure 3, local farmers and foresters are, on average, represented on the basis of 10% in TN consortia. Some of the TNs even do not have farmers, foresters, farmers groups, associations or farmer representatives in their consortia. This does not mean that this important TN end user group is not being engaged in TN activities. Hennovation, for example, has only two main types of actors (academic& research institutions and entreprises) but turned out to be very successful through facilitating regional practice-led innovation networks¹⁴. According to the interviewed TNs farmers and foresters are indeed more engaged through participatory activities (see section, MAA in the execution phase 2.). Based on the written survey, it was shown that 77% of the responding TNs (13) estimates that the farmers' and foresters' specific needs are sufficiently presented through the involvement of farmers and/or foresters organizations or groups (figure 8). This can also be done through participation in a TN consortium but also, alternatively, through e.g. membership of an advisory board (see 3.1.3.2 At the Advisory Board level).

¹⁴ http://hennovation.eu/facilitating%20practice-led%20innovation/index.html



The EURAKNOS project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No: 817863





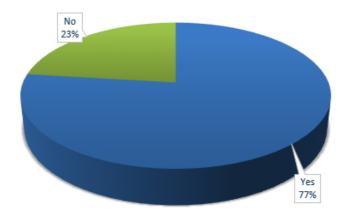


Figure 8 Percentage of TNs that indicated that the local farmers needs were well represented (77%) against the TNs that indicated that this was not the case (23 %) (answers based on the responses of 13 TNs)

C.2. Innovation brokers

Innovation brokers are considered playing an essential role as they act as one of the intermediaries in the agricultural innovation process. According to the international review by Winch and Courtney (2007)¹⁵ innovation brokers are defined as organizations that are founded especially to undertake an intermediary role, rather than performing that role as a byproduct of their principal activities.

SCAR SWG AKIS identified a series of essential skills for innovation brokers ¹⁶:

organizations that are founded especially to undertake an intermediary role, rather than performing that role as a byproduct of their principal activities."

"Innovation brokers are

- 1. being able to listen to understand exactly the problem/opportunity and the context
- 2. being capable to analyse the problem/opportunity: how can it be tackled in the best possible way (costs, actors, funding source, etc.)?
- 3. having a good network to find people and information
- 4. having intermediating skills to seek compromises where needed
- 5. being quality orientated: plans made have to work out; eventually, responsibilities taken, do not create audit problems
- 6. where useful, thinking out of the box and not defending own positions/research.

In this study, innovation brokers have been considered as sub category in the group of Advisory and applied research centres" as their role can be considered advisory to farmers/or foresters. When taking a closer look, "Boerenbondvereniging voor Innovatieve projecten vzw¹⁷" was the only organisation identified as an innovation broker within the TN community So far, this organisation participated in 5 TN consortia (figure 5).

¹⁷ https://www.innovatiesteunpunt.be/nl



The EURAKNOS project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No: 817863

¹⁵ Winch, G.M. and Courtney, R. (2007) The Organisation of Innovation brokers, An International Review. *Technology Analysis and Strategic Management* 19 (6), pp. 747-763

¹⁶ https://ec.europa.eu/info/system/files/food-farming-fisheries/key_policies/documents/report-preparing-for-future-akis-in-europe en.pdf



C.3. Advisors

According to the last report of the SCAR SWG AKIS advisors can also support the role of innovation brokering. 'Advisors are in continuous contact with their clients (end-users of knowledge) and are ideally positioned for capturing the needs of the producers and encouraging the building of interactive projects, capturing innovative ideas from practice. They should be able to allocate the right person to the right problem and connect complementary actors around a common objective tackling a practical problem or opportunity'.

Advisors and applied research organizations and/or institutions with a specific advisory role, such as Teagasc, PSKW, and Idèle, are only 13% of the share of actors represented in the TN consortia.

D. Implementation of the "Bottom-up" approach

One of the key-elements in H2020 TNs is the bottom-up approach. First and foremost, they must tackle the needs and the challenges that farmers and foresters are faced with every day. With this bottom-up approach, the EU strives to fund initiatives that feed the needs of the end-users, farmers and foresters, and support the uptake of the results by these in order to enhance innovation in agriculture.

On the question, if the TN set up was initially research and/or policy driven or demand driven (referring to the bottom-up approach) 53% of the TNs answered that their TN was Demand based, 13% answered that the TN was both demand and research/policy based. The Newbie thematic network was the result of the Focus Group 14 "New entrants into farming."

80% of the demand-based TN initiatives monitored the extent to which their TN met or still meets the end-users' needs. The methods used were mainly questionnaires or satisfaction surveys (50%, data not shown). Amongst the category others, reflection interviews, review reports, network registrations, were reported.



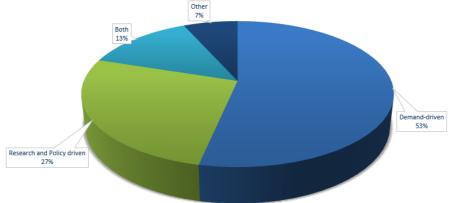


Figure 9 Share (%) of TNs (15) that considers the TN demand driven, research and/or policy is driven, both or driven by other factors (based on the responses of 15 TN received through the SurveyMonkey® survey)

"66% of the interviewed TNs answered that their TN was demand-driven, while 27% of the TNs expressed that their TN was more research and/or policy driven.



E. Geographical coverage of actors

The TN desktop analysis revealed that all 28 EU Member States are part of the TN community (figure 11). Seven non-EU countries are represented amongst the TN consortium partners, being Tunisia, Turkey, Switzerland, South Africa, Ukraine, and Norway. Member states taking a leading role in the TN community are Belgium (46 participations), Spain (45 participations), France (43 participations), and Italy (37 participations). The first position of Belgium can be partly explained by the localisation of international, European, and regional organisations in Brussels such as COPA COGECA. Countries of the Eastern and Northern European regions are far less involved as compared to Southern and Western European countries. Countries were classified in regions according to the United Nations'

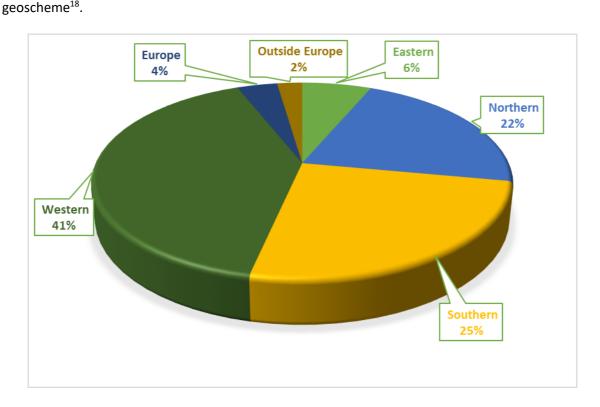


Figure 10 Geographical spread amongst the different of the TN grants (in % of the total TN grant).

When focusing on the geographical spread of the EU grants, the desktop showed that 41% of the TN total grant is allocated to Western and 22% Northern European Member States (figure 10). Eastern European Member States received only 6% of the total TN grant. 4% of the total TN budget goes to European and international umbrella organizations that are often Brussels based (Europe). Countries outside Europe (Israel, Switzerland, South Africa, Turkey, Tunisia) account for only 2% of the total budget. When looking closer on the budget allocation per country, it appears that France and Belgium so far received each 11% of the total TN grant, closely followed by the United Kingdom (10%), Spain (10%) and the Netherlands (10%). Amongst the Eastern European Member States, Hungary is ranked at the top receiving almost 1 million European grants, accounting for 2% of the total TN grant.

¹⁸ https://en.wikipedia.org/wiki/United Nations geoscheme for Europe



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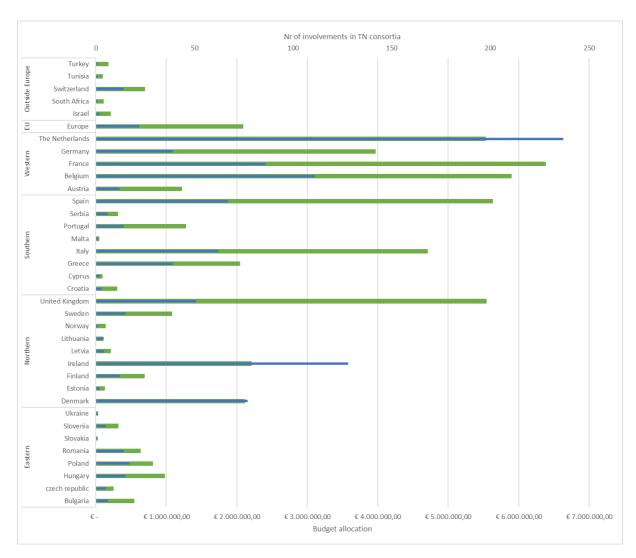


Figure 11 Budget per country total participation in 28 TNs as compared to the number of participations in 28 TNs (based on data retrieved from TN websites and CORDIS)

3.1.3.2. At the advisory board level

Another way to involve actors is to engage them in structures that collaborate closely with the consortium such as Advisory Boards (AB). Typically, an Advisory Board will meet with the consortium once to maximum twice a year. Often, they also cover umbrella organisations at the European level (e.g., COPA GOGECA, CEJA, EUFRAS.), representing farmers, foresters or advisors. Even individual farmers are in some cases member of such a board. For example, the External Advisory Board from FERTINNOWA had 8 growers and grower organizations, 4 technology representatives (fertilizer and plant industry), 1 consumer organization, 3 representatives of government organizations and 2 representatives from NGOs.

In the course of the project, the EAB of FERTINNOWA took up a more active role, and their function as such was redefined during the project from an advisory to the co-creative committee (e.g., co-organization of events).

Potential Advisory Board members are mostly contacted during the inception or conceptual phase of the project. In some cases, the composition of the Board may change in the initiation phase of the project. INNO-4-GRASS had letters from intent COPA COGECA, Friesland Campina, Butchery 'Cote à



l'os', LIDL, Biopole Clermont-Limagne, IKBKS, Serida, and an Irish farmer. In the end, the butchery, farmer and LIDL did not take part when the project had started.

3.1.4. MAA in the execution phase

3.1.4.1. Ways to interact with actors from the consortium

In general, consortia meet at least twice per year in real F2F meetings (14 of the 15 responding TNs, SurveyMonkey®). 81 % of the responding TNs indicated that this frequency is sufficient to interact, co-create, and fulfil the objectives of the project. Some TNs, like for example, Disarm organized 4 consortia meetings in the first year and reduced the number to 2 meetings from the second project year onwards. FERTINNOWA and OK-Net Ecofeed organized only 1 meeting per year. According to FERTINNOWA, this frequency was too low, while OK-Net Ecofeed considered the frequency sufficiently. Virtual meetings or F2F meetings with smaller parts (e.g., work package or task level) are carried out more frequently. OK-Net-Arable organised 3 consortia meetings per year and indicated that this frequency was not sufficient.

3.1.4.2. Ways to interact with actors from the consortium

A. A broad range of ways to interact with external actors

The TNs used a broad range of ways to interact with external actors (outside of the consortium). To serve this goal, consortia organised different kinds of activities such as participatory workshops, cross exchange visits, demo activities, show cases etc.. These are just some examples as there are many ways applied by TNs to engage external actors to achieve a maximum of knowledge exchange and co-creation in identifying best practices, methodologies and innovative solutions. For example, the TN Newbie organized "discussion circles" and OK-Net Arable "Science Bazaars" where relevant actors met to discuss challenges and potential solutions related to specific topics. ENABLING cooperated with other organizations to present the outcomes of the project at a conference. Winetwork and FERTINNOWA conducted 'growers interviews' to have a strong interaction with the end-users.



Figure 12 Impression of a Sheepnet national event in France.

A TN final conference may be with the active participation of external actors, for example in the FERTINNOWA final conference, an interactive policy session was organized in which different types of actors amongst whom farmers' organisations, policy makers, NGO's, consumer organisations, and



researchers presented their view on specific issues related to water use in agriculture. A round table discussion followed the policy session.

B. The role of facilitators

Some TNs have not many types of actors in the consortium. The Hennovation consortium, for example, had only 3 types of actors (SME, public research institutions, and universities). Instead, a creative and efficient approach for the involvement of different actors was used. In the case of Hennovation¹⁹ 19 local networks were facilitated including famers, processors, veterinarians, technical advisors, market representatives, and researchers. The networks worked collaboratively to find solutions for essential husbandry challenges. Facilitators supported the networks through 6 critical steps: problem identification, generation of ideas, planning small scale trials, implementing and sharing with others.

"Half of the responding TNs reported having facilitators in the consortium."

Half of the responding TNs (based on 15 completed SurveyMonkey® survey) reported having facilitators in the consortium. Besides Hennovation, also Winetwork²⁰ Furthermore, Sheepnet implemented the facilitator model.

According to Winetwork a good and efficient MAA needs three key elements:

- 1. A network of facilitators, agents in the center of the top-down/bottom-up approach, with sound technical knowledge supported by technical and methodological coordinators;
- 2. An Advisory Board composed of researchers to validate the accuracy of the knowledge disseminated;
- 3. The implication of practitioners (farmers and technicians) through Technical Working Groups working together on specific issues and ensuring the feasibility of the proposed solutions

Likewise, SHEEPNET²¹ engaged network facilitators to foster cross fertilization between people with different profiles (farmers, advisors, vets, and scientists).

AgriSPIN has studied 59 cross exchange visits (outside of the project) and has organized 13 cross exchanges in the frame of the AgriSPIN TN. Based on the study and the experiences gained, AgriSPIN developed a framework for an improved methodological approach ²²; The developed approach can be used to enhance the efficiency and hence the impact of cross exchange visits. The methodology includes detailed instructions for each step. Cross exchange focus on the exchange between professionals e.g. practitioners but also other actors and/or stakeholders may be involved such as key informants who are interested in feedback, authorities (representatives of the regional administration, policy makers) and important players in the sector.

AgriSPIN has developed a detailed overview of the different actors involved in the innovation process (see Fig. 13). This overview indicates a clear role for the facilitator as being the key person who guides

²² https://agrispin.eu/wp-content/uploads/2016/11/Cross-Visits_Improved-Methodology-1.pdf



¹⁹ http://hennovation.eu/results/index.html

²⁰ Deliverable 7.4 Winetwork, Final report (2017)

²¹http://sheepnet.network/



the group in achieving a task together next to other innovation actors such as the innovator, sparring partners, innovation coach, knowledge broker, innovation broker, expert, supplier, and free actors.

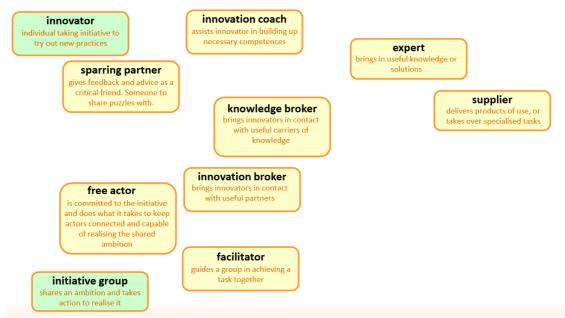


Figure 13 Overview of the different types of actors involved in the innovation process (AGRISPIN)

C. Participation of the different actors in TN activities

When discussing the participation of different actors in the TN activities, it interesting to know more about the type of actors that are reached through the consortium members. Based on the online survey (SurveyMonkey®), it was shown that 100% of the responding TNs (15) answered reaching farmers' organisations, 94% indicated reaching farmers, enterprises and policy makers at the national level. While 75% of the responding TNs indicated reaching innovation brokers, and 62,5% reached policy makers at an international level equal with students. Facilitators and consumers where in the scope of respectively 44% and 38% of the consortium members. NGOs have not been mentioned (figure 14).

Facilitators were not considered as a separate category in the desk top study as it is difficult to distinguish which actor takes up this role as such based on the TN websites and the CORDIS database. 44 % of the interviewed TNs indicated however that they had a facilitator in the consortium. Other differences such as the higher involvement of farmers (93,75%) and farmers and farmers groups (100%) and international policy makers (62,5%) could be due to e.g. their presence in other structures such as the Advisory Board.

"Farmers, farmers' organisations and advisors were the primary group of actors involved in the different types of activities organised by the TNs. Involvement of policymakers depended strongly on the type of activity organised."

consumers and consumer organisations (figure 16).



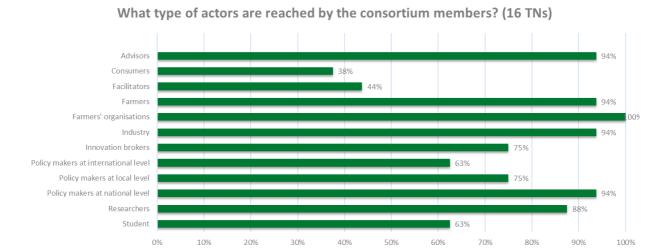


Figure 14 Percentage of TN consortia reaching the different type of actors (based on 15 completed surveys on SurveyMonkey®)

When TNs were asked about the involvement of the different actors in their organised activities, the TN responses showed that farmers and advisors were the primary groups of actors involved in the different types of activities. Also, farmers' organisations were actively involved in the activities. Policy makers' involvement differed strongly depending on the type of activity. Policy makers showed being active in the share of cross exchange visits and demonstrations organised in the framework of the TNs. Higher involvement was reported for workshops and other activities. Consumers and consumer organisations showed being present during demonstration activities and "other activities."

In the category "other" activities, the organisation of TN conferences was reported by 2 TNs (FERTINNOWA and Euro Dairy). EUFRUIT reported organising public events, also addressing



Figure 15 Impression of the interactive policy session of FERTINNOWA where policy-makers, NGO's, researchers,presented their views on water management during the Final Conference in Almeria, Spain, 2018.



Involvement of actors in TN activities 100% 100% 93% 92%92% 92% % of responding TNs withy involvement of ... in ... 86% 83% 78% 78% 67% 70% 64% 56% 60% 50% 50%50% 50% 42% 40% 30% 20% 10% 0% Other Farmers Farmers' associations Policy-makers Re searchers Universities Facilitators Other Advisors Farmers Farmers' associations Policy-makers Re searchers Universities Facilitators Advisors Farmers Farmers' associations Policy-makers Re searchers Universities Facilitators Other Advisors Farmers Farmers' associations Policy-makers Re searchers Universities Facilitators Consumers Consumers Consumers Consumers Cross exchange visits (12TN) Demonstrations (9 TNs) Workshops (14 TNs) Other (12 TNs)

Figure 16 Share of participation (%) of different types of actors in TN (nr) participatory activities such as cross exchange visits (12TNs), demonstration activities (9TNs), workshops (14TNs) and other activities (12TNs) (results based on SurveyMonkey®)



3.1.4.3. Contribution of the MA group

When asked to TNs how they would describe the *overall contribution of the MA groups in the process of the co-creating knowledge* (written surveys), the results highlight that all of the interviewed contacts estimate that the collaboration of the MA group in their TN contributes to content creation. 91% Of the

interviewees indicated researchers and advisors equally as the main contributors to content creation in the frame of the TNs activities. TNs considered farmers (53%) and farmers' organisations (50%) as well as active contributors during the TN activities. Policymakers and consumers benefitted mainly from the TN's outcomes, rather than providing input to the TNs as considered by the TN interviewees.

"91% of the interviewees indicated researchers and advisors equally as the main contributors to content creation in the frame of the TNs activities."

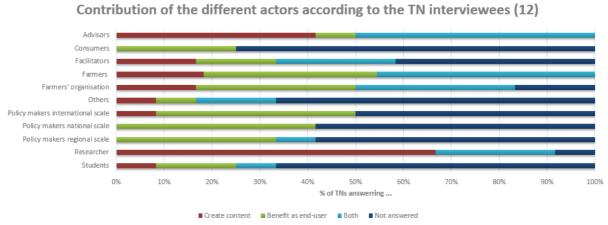


Figure 17 Contribution of the different actors according to the TN interviewees (based on 12 surveys in SurveyMonkey®)

The interviewees were asked to evaluate the actors' impact on the TNs'. Although few interviewees answered this question a tendency is seen that farmers, advisors, and researchers were considered having a high to moderate impact on the TN activities. In contrast, policy-makers and consumers were considered having moderate to low impact on the TN activities.

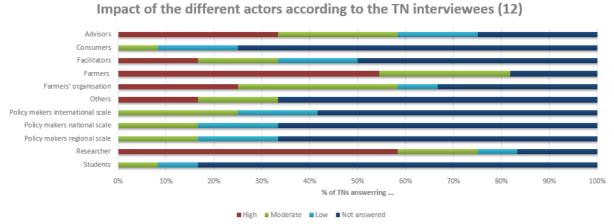


Figure 18 Impact of the different actors according to the TN interviewees (based on 12 survey in SurveyMonkey®)





A. Involvement of farmers and foresters in TNs

The TN contacts were asked to indicate the type of farmers and foresters involved in the TN activities. Out of the 15 responding TNs, 4 indicated not being able to provide this indication. Based on the 11 responding TNs, it was shown that TN activities mainly involve farmers and foresters that could be described as "innovators" (100%) and early adopters (73%). Only 1 TN, Hennovation, indicated also reaching the early and late majority and the laggards. The answers indicate that the innovation chasm is not bridged, as shown in figure 19.

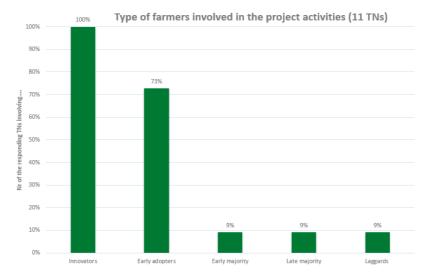


Figure 19 Percentage of TNs considering the type of farmer involved in project activities: innovators, early adopters, early majority, late majority and laggards (results based on written surveys of 11 responding TNs)

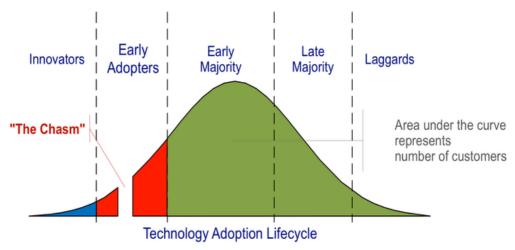


Figure 20 Technology adoption lifecycle²³

²³ https://medium.com/@shivayogiks/what-is-technology-adoption-life-cycle-and-chasm-e07084e7991f



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As mentioned before, the EU considers farmers and foresters to be the most relevant end-users of TN results. During the F2F meetings, TN contacts were asked about their *methodology to keep farmers and foresters engaged in events or meetings during the execution phase, the* following answers were given:

- 1. By *choosing a comfortable area* to set the meeting for farmers (good atmosphere, coffee, food...); try to have an informal part in every meeting with drinks for example, to have a social part;
- 2. By contacting them several times (phone call, WhatsApp) so they do not forget the meeting and stay engaged; the best ways to make contact may, however, differ from country to country, or region to region;
- 3. By organizing study visits for farmers;
- 4. Through *focusing on commercial aspects* that are of major interest to the farmers (and specifically to the research community);
- 5. Through *involving the national steering boards*. They decide on the topics to be discussed in the project in a bottom-up approach; these topics should trigger the farmers;
- 6. Through *organizing an annual contest* focusing on farmers, e.g. NEWBIE has organised an annual contest for young starters;
- 7. Interesting topics and facilitation.
- 8. Free access.



Figure 21 Bulgarian Newbie winner of 2019. The amount of the award of 500 euro will be used in international exchange for experience exchange and cooperation with milk farms²⁴.

When the interviewees were asked about their suggestions engaging farmers in events, they answered the following:

- 1. Having good *innovation brokers* that are trusted by farmers; contact them frequently;
- 2. *Use the advisory services* in order to select the right innovative farmers, look for a win-win situation: what are the farmers' drivers or barriers?
- 3. Combine 'more boring topics' with 'catchy topics' for farmers;
- 4. Project events/meetings can be combined with other more farmer oriented events so farmers are

²⁴ http://www.newbie-academy.eu/bulgarian-newbie-winner-of-the-year/



-



- triggered to come as they as well visit the other event;
- 5. Talk: F2F meetings and interviews with the farmers. Public talks with farmers. The best way to engage farmers is to talk with them in an informal way. No presentations, no official speeches.

"The best way to engage farmers is to talk with them in an informal way. F2F meetings and interviews with the farmers."

B. Barriers to the success of the MAA

According to 86,7% of the 14 TNs outputs from the F2F interviews, the language is a major bottleneck for a successful MAA, followed by budget (80%), human resources (80%). To make actors work together, there is a need for facilitation (73,3%). The actors on themselves (53,3%) and time (46,7%), as well as the coordinator (33,3%), may be hampering factors for a successful MA. From the 14 TNs responding the question if they missed a specific actor in their consortium, only 3TNs responded positively. INNOSETA mentioned missing farmers, FERTINNOWA mentioned missing a sociologist and graphical designer, the latter mainly to overcome the language barrier faced to disseminate the project outcomes. OK NET ARABLE mentioned missing Students, policy makers both at the national and local level and consumers.

Main barriers for the implementation of the MAA as percieved by the TNs (14) Actors Budget Coordinator Facilitation Human resources Language Time 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100% Percentage of responding TNs answerring....

Figure 22 Main barriers for the MAA as perceived by the TNs (%) (based on 14 written surveys in Survey Monkey®)

3.1.5. MAA in the post project phase

3.1.5.1. MAA and sustainability

One of the main challenges of the TNs linked to the sustainability of the network and the updating and effective use of the outputs and the results in the long term. According to the F2F interviews, the MAA helps to make the TN sustainable beyond the life of the project funding due to the connection with the EIP-AGRI, links with end-users and the dissemination of best practices.



Main barriers for the implementation of the MAA as percieved by the TNs (14) End-users EIP-AGRI Best practices 80% 82% 84% 86% 88% 90% 92% 94% 96% Percentage of responding TNs answerring....

Figure 23 Main barriers for the implementation of the multi actor approach as perceived by the Thematic Networks (TNs) (based on 14 face to face (F2F) interviews).

When asked to the interviewees how to better ensure the sustainability, 3TNs estimate that it is too early to answer this question as the project just started, 60 % of the TNs mention the links with existing OGs and other TN and links to end-user groups such as farmers, forester and advisors. Smart AKIS indicated that they have tried to involve industrial partners, who would be willing to fund further activities. Other answers are also referring to creating more synergies with other projects, related initiatives, or other parties to continue using the outputs and results after the project:

- 'Linking more everywhere (Focus groups, OGs) about methods, etc. Increase synergies between ongoing projects at an European scale'
- 2. 'Be aware that most end-users will never visit the EIP AGRI website but Google. Make results searchable and findable through Google'
- 3. 'Projects should be included in a bigger picture as for example communities of practice, outputs easily accessible for practitioners, continue to work giving service to farmers beyond the project.'
- 4. 'A shared vision and parties we can genuinely work with are needed. Explore other relationships. Use TNs beyond the project duration.

"Be aware that most end users will never visit the EIP-AGRI website but Google. Make results searchable and findable through Google."

Reference was also made to the duration of the project as a 4th year would allow more to capitalize on the network and integrate the results in an existing initiatives and communities: 'If thematic networks are 3 years and the likelihood is everything comes to a standstill in 3 years then you're on a high road to nothing. You are anticipating that the links that have been developed over that period gain legs of their own. So I think a 4 year TN is better than 3, as in EU PiG. I think successful TNs should be encouraged to develop further, not necessarily linearly but expanding what they are doing or attacking a different subject because for us, we've built up a network, we've created a platform, and now the project is finished. And the interest in putting another proposal in is to partly capitalise on that. Partly to capitalise on some of the OGs before they run their course. I think one recommendation is about duration and decent continuation, and the other is going back to a more informed and intelligent way of creating links that endure through social media and user



groups and communities of interest that are going to continue and have a life going forward.'

3.1.5.2. Evaluation

The evaluation of the projects impact is partly included in the final reports of the project. The final TN report reflects the results in frame of the objectives and the progress beyond the state of the art and potential impacts, making use of qualitative and quantitative indicators that have been set in the project

"The final TN report reflects the results in frame of the objectives and the progress beyond the state of the art and potential impacts. It does however not include the effective uptake of the results by the end user after the finalisation of the project in the short, long and medium term."

description (e.g. number of communication and dissemination events, organised. It however not include the effective uptake of the results by the end user after the finalization of the project in the short, medium, and long term (post project evaluation).

Task 3.3 will develop a knowledge assessment template to assess the uptake of the type of knowledge by the different type of actors after the ending of the project. Such an assessment may be performed through surveys with targeted end user groups.

Another way to evaluate if the project has been successful in uptake of results could be through the use of google analytics. Based on these, TNs may decide whether it is till useful to keep the website running after the ending of the project or not and evaluate the short medium and long term impact of technical documents or guides that have been produced during the project and are still downloaded after the ending of the project e.g. The Fertigation Bible, one of the main outcomes of the FERTINNOWA project. 10 Months after finishing the project the interest for this handbook is still high. Based in the number of views and downloads it was decided by the FERTINNOWA team to keep the website ongoing.



4. Conclusion

28 TNs have been investigated through a desk-top study, written and oral surveys to map best practices and methodologies for the MAA.

In short following main conclusions can be drawn:

- 1) The main type of actors that are engaged in TN consortia are academic institutions and research organizations are participating most in TNs, followed by enterprises, associations, advisory centers and applied research institutions with an advisory role, primary producers and government institutions. Media, NGO, consumers, and dedicated educational institutions are rather underrepresented. These groups of actors are equally important in the AKIS and should be more involved in consortia in the frame of the MAA; especially educators facilitators play a major intermediary role in the uptake of results. Innovation brokers and educational institutions (e.g. vocational schools, advisory training) should be much more involved in consortia and through participatory activities.
- 2) Partners in TNs are mostly from Western Europe (France, Belgium, The Netherlands, Germany), followed by Southern Europe (Italy, Greece) and Northern (UK). Countries outside Europe that have participated in TNs till now are Israel, Norway, South Africa, Ukraine, Switzerland, and Tunisia. Eastern European countries should be more involved in TNs as to bridge the divide between Eastern and Western Europe in terms of innovation in agriculture and forestry.
- 3) The biggest part of the total TN budget goes to partners in Belgium, Germany, Spain, France, and the UK. This means that most of these countries take the lead in coordinating TNs or WPs of TNs. Other countries should be stimulated to do so as to maintain the balance in regional innovation.
- 4) Only half of the TNs are 100% demand driven, meaning that half of the TNs are not oriented to the end users' needs, farmers and foresters. Therefore there is a need for more involvement from end users, in particular farmers, forester and advisors, during the project, in particular during the conceptual phase. This may e.g. be done through consultations, surveys and advisory boards;
- 5) The farmers or foresters who participate in TN project activities are mainly a selected community of innovators. Farmers are less involved in the conceptual phase than researchers, advisors, farmers associations, and facilitators. There is a need to involve more early adopters and reach the early majority for a project to be successful. Linking to OGs and local end user groups is useful. Farmers should be approached in an informal setting and an environment that creates trust. Project activities to involve them should be farmer oriented such as study visits and as side events to their own existing initiatives such as fairs;
- 6) There is no one size fits for all. The MAA depends on the subject, theme and value chain. Therefore a range of strategies can be applied which must take form during the conceptualization phase, preferably with the involvement of all actors, in particular end user groups, advisors, farmers and foresters. Moreover, the MAA is a dynamic process and may change and adapted over the course of the projects as new insights may occur and roles and functions may be redefined; a wide range of MA participatory activities are being organized within TN projects such as workshops, cross exchange visits, demonstration events, case studies, and trainings.
- 7) The MAA is considered as key to contribute to content creation of the knowledge reservoirs (KRs) produced by the TNs, but also to content for advisory systems and networking; according to the EIP AGRI end users of MA projects are considered to be specifically farmers and foresters, and potentially advisors or innovation brokers as key intermediaries between the research and the practice. TNs also consider farmers associations, policy-makers, researchers, and facilitators as important end users groups. The focus on farmers, forester and advisors as the users of practical oriented knowledge in the field, should be clear form the conceptualization till the end of the



- project. The involvement of many types of actors in the consortium does not guarantee as such better involvement of all actors to enhance knowledge exchange and impact. Impact can also be achieved by involvement of the actors, in particular end users, in regional or local innovation hubs or networks and the use of facilitators. The facilitator model to involve local end user groups were successfully deployed in several TNs such as Hennovation, Sheepnet and Winetwork;
- 8) The MAA of TNs should link to European, national, regional and local level so as to be fully efficient. Therefore MAA networks should be horizontally and vertically integrated. This can be achieved by the involvement of e.g. European umbrella organizations, national rural networks (NRNs), and local networks in dedicated TN activities during the lifetime of the project;
- 9) Depending on the topic of the TN (water management, plant protection...), the relevant regulatory authorities (water authorities, plant protection authorities...) should be also involved;
- 10) A post-project phase is needed to evaluate the outcome and uptake of results by the end user, in particular farmers, foresters and advisors. Further reflection is needed on how to evaluate this and which type of evaluation methodologies and indicators should be used.



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6. Annexes

6.1. Annex 1: Desktop study template

Actor analysis:

- 1. Project consortium partners: name of the institute, for example, INRA Clermont Ferrand
- 2. Partner's localization: complete address
- 3. Partner's key function: a short description of the key aim of the partner organisation
- 4. Role of the partner in the project: short description
- 5. Budget allocation % total budget PMs on the project: from CORDIS
- 6. Organisations endorsing the project: information retrieved from websites
- 7. The function of the endorser (short description)
- 8. Endorser's role in the project (short description)
- 9. Endorser's localisation (complete address)
- 10. The reputation of the organisation among the farmer's community (+ or NEUTRAL or -)
- 11. this information might be known by the institute involved in the TN and in charge of the desk-top study for this TN.
- 12. If this information is not known, then it feeds the F2F meetings questionnaire
- 13. Organisation's potential for networking (high, moderate, low)
- 14. this information might be known by the institute involved in the TN and charge of the desk-top study for this TN.
- 15. If this information is not known, then it feeds the F2F meetings questionnaire
- 16. The method used to get the organisation/actor on board in a particular TN
- 17. this information might be known by the institute involved in the TN and charge of the desk-top study for this TN.
- 18. If this information is not known, then it feeds the F2F meetings questionnaire
- 19. Are all relevant actors in the consortium regarding the project's objectives? If not, who is missing?: Y or N. If No, who is missing, --> name it

Co-creation of knowledge:

- 1. Geographical coverage: high, moderate, low
- 2. Primary target group (atomic description): if it is a Research centre, we assume that scientists are the 1st target group... atomic description of the public reached at first by each partner
- 3. 2nd Level target group (atomic description): all actors reached by the first target group activities (indirectly reached by the project partners)
- 4. Connection to other TNs? (Yes or NO. If yes, which one(s)?)
- 5. Connection to OGs/EIP AGRI? (Yes or NO. If yes, which one(s)?)
- 6. Language relevance for connecting to OGs (Yes or No)
- 7. Connection to other MA projects? Y or N. If Yes, Name it
- 8. Direct connection to the farms? If yes, how? NOT a scroll menu with pre answers such as farm demos, open days. It can be other connections (a personal network of sb working in close ties with Farmers...)
- 9. Impact indicator to evaluate the efficiency on the farm level (Y or N, if Yes which one?)

Involvement of actors

- 1. Participation in meetings Y or N. If yes, what kind of meeting, very short description)
- 2. Actor's collaboration in written materials (Y or N. If yes, type of material? Atomic description)





- 3. Actor's collaboration in videos(Y or N. If yes, the topic of videos? Atomic description)
- 4. Participation in field visits/science practice meetings (Y or N. If yes, topics)
- 5. Are the local farmers' preferred channels of information known/used?
- 6. Accessibility of the outputs (knowledge generated)
- 7. Sustainability of the outputs generated (Y or N, if Y how?
- 8. Impact indicator to evaluate the efficiency on the farm level (Y or N, if Yes which one?)



6.2. ANNEX 2: Questionnaire for the face-to-face interviews

Preliminary questions (Skype with the coordinator)

- 1. What is the definition of MA in your TN?
- 2. Can we look at the multi actor strategy?
- 3. How was the multi actor strategy described in the TN proposal?
- 4. Do you have contact with the persons of the different groups of actors a) from the consortium group b) outside the consortium group (endorsers) c) outside the project who could answer to theses specific questions about MAA?
- 5. Did the MA strategy differ during the project progress from what was described in the proposal? (Y/N)
- 6. Who are the actors in the multi- actor group? (academics, policy-makers, advisors, consumers, farmers, facilitators. end-users)
- 7. What types of actors are reached by the consortium members (2nd level target group) ? (academics, policy-makers, advisors, consumers, farmers, facilitators. end-users)
- 8. How frequently do the actors of the consortium meet during the TN project? (numeric data)
- 9. What is the share of farmers (list of possible answers: number of involved farmers/ total number of stakeholders in the consortium)?
- 10. Which type of farmers were involved in the thematic network (list of possible answers: early adopters, multiplicators, innovators or farmers in a special region with special issues).
- 11. How many farmers of each type (early adopters, multiplicators, innovators or farmers in a special region with special issues) were on board? (numeric data)
- 12. Was it a more scientific project or a project that has emerged from challenges met by a group of farmers? (2 POSSIBLE ANSWERS: research and policy-driven projects/ demand-driven projects)
- 13. Co-creation of knowledge
- 14. What are the types of actors involved in each MA meeting/TN work?
- 15. (academics, policy-makers, advisors, consumers, farmers, facilitators. end-users, others)
- 16. Were you missing any type of actor (academics, policy-makers, advisors, consumers, farmers, facilitators. end-users) in your project?
- 17. Why was each type of actor approached? (best practices)
- 18. How was each type of actor approached? (best practices)
- 19. Why was each type of actor interested in joining (motivation)?
- 20. Were they involved in any other TN? (Y/N)
- 21. What were the barriers (e.g. stakeholder fatigue)?
- 22. How did they contribute (2 POSSIBLE ANSWERS. create content or only use as end-user)?
- 23. If some contents/ or materials were created, what type of content/ materials has been disclosed? (list of possible content/ material to be together defined)





- 24. Did new topics emerge from some MA processes (such as from peer-to-peer learning, collective thinking?) (Y/N)
- 25. From when to when (start to finish/ map in time; 3 possible answers : beginning of the project, mid-term, or termination phase)?
- 26. Did the initial expectations have changed during the project/ after the project? (Y/N)
- 27. If yes, why did the initial expectations have changed throughout the project lifetime?
- 28. How many links were you able to make to other MA projects and groups in the EIP-Agri landscape (focus groups, operational groups, rural development networks,...) (numeric data)

Subsidiary questions (if we have the time to raise these questions)

- 1. How would you describe this process (main difficulties and suggestions/actions taken to facilitate this process)?
- 2. What have been the main reasons for these linkages (e.g. use of it in future projects, advisory services etc).
- 3. What is the geographical relevance of your TN? (are all relevant areas covered with regards to the TN agricultural topic?) (Y/N)
- 4. What communication channels have been mostly used and developed between all actors (consortium communication) and throughout the timeline?
- 5. Involvement of stakeholders
- 6. Has the involvement of actors changed over the project? (Y/N)
- 7. How the involvement of actors changed over the project?
- 8. Why do you think the involvement of actors has changed over the project?
- 9. Are meetings organized with farmers? (Y/N)
- 10. If yes, how often? (numeric data)
- 11. How many farmers attend these meetings? (numeric data)
- 12. Is there any impact indicator/evaluation method to measure the impact of the meetings? (Y/N)
- 13. If yes, what impact indicators did you use? (example: quantitative indicators such as the number of participants, evaluation grade, or more qualitative such as satisfaction survey, others?)
- 14. How did the thematic network keep farmers and other actors engaged in meetings? (best practices)
- 15. Lessons learned from experienced projects and how you would approach things (differently or not) when you will start a new TN? (best practices)

Subsidiary questions (if we have the time to raise these questions)

- 1. What were the benefits for each type of actor for being involved in the project?
- 2. Which results/outputs are available? How did each type of actor benefit from the outputs of the project in the short, medium and, long term?
- 3. MA structure and sustainability of the TNs
- 4. Is the thematic network sustained beyond the life of the funding? (Y/N)





- 5. If yes, how is this sustainability ensured? (are there any informal operational groups that have continued beyond the life of the thematic network? Focus groups? Others?)
- 6. What recommendations would you make in order to better ensure the sustainability of the TNs ? (best practices)



6.3. ANNEX 3: SurveyMonkey

EURAKNOS		
2.4 Multi-actor approach		
* 1. Which thematic network of	do you represent?	
○ AGRI-SPIN	CERERE	
O HNV-LINK	○ INCREDIBLE	
O SMART-AKIS	O PANACEA	
AGRIFORVALOR	○ INNOSETA	
○ AFINET	o best4soil	
○ Inno4Grass	 legumes translated 	
SKIN	HENNOVATION	
ENABLING	EuroDairy	
○ NEWBIE	○ 4D4F	
Suwanu	O EU Pig	
OK-Net-Arable	SheepNet	
○ FERTINNOWA	OKNeT Ecofeed	
WINETWORK	○ Disarm	
EUFRUIT	Nutriman	
Others (specify)		



EURAKNOS		
2.4 Multi-actor approach		
2. Which are the different groups of actors in your consortium?		
Researchers		
Students		
Policy-makers at local level		
Policy-makers at national level		
Policy-makers at international level		
Advisors		
Consumers		
Farmers		
Farmers' organisations		
Facilitators		
Innovation brokers		
Industry		
Other (please specify)		



3. Which of them are/ were end	-users ?
Researchers	Consumers
Students	Farmers
Policy-makers at local level	Farmers' organisations
Policy-makers at national level	Facilitators
Policy-makers at international level	Innovation brokers
Advisors	Industry
Other (please specify)	
4. What types of actors are read	ched by the consortium members?
Researchers	Consumers
Students	Farmers
Policy-makers at local level	Farmers' organisations
Policy-makers at national level	Facilitators
Policy-makers at international level	Innovation brokers
Advisors	Industry
Other (please specify)	
How frequently do the partners N project? (number per year)	of the consortium meet during the



6. Is this frequency of meetings perceived as sufficient?
○ Yes
○ No
7. What is the share of farmers' associations or representatives in the consortium? Number of
involved farmers' associations
Total number of stakeholders in the consortium
8. From your point of view, are the local farmers' needs well represented by the farmers'associations engaged in the consortium?
○ Yes
○ No
9. Which type of farmers were involved in the TN?
Early adopters
Innovators
Farmers in a special region with special issues
Other (please specify)



project's cons	y farmers of each type were represented within the ortium? (please give proportions: ex 25% of innovative e total of represented farmers)
Early adopters	
Innovators	
Farmers in a special region with special issues	
Other	
has emerge operational	
oresearch and	d policy-driven project
O demand-driv	ven project
Other (pleas	e explain in a few words)
project, do	project was initially determined as a demand-driven you have evidence which shows to what extent the project emand's needs?
○ No	



13. If yes, please choose one type of evidence among the following list
Satisfaction survey
Ouestionnaire
Other (please specify)
14. Regarding the targeted results, did the initial expectations change during the project/ after the project?
○ Yes
○ No
15. If yes, how did the initial expectations change throughout the project lifetime?
O Positive trend
O Neutral trend
Negative trend
EURAKNOS
2.4 Multi-actor approach
Co-creation of knowledge



16. What are the types of actors involved in each multi-actor participatory workshops?		
Researchers	Advisors	
Students	Consumers	
Policy-makers at international level	Farmers	
Policy-makers at national level	Farmers' associations	
Policy-makers at local level	Facilitators	
Other (please specify)		
17. What are the types of actors involved in each multi-actor participatory demo's?		
Researchers	Consumers	
Universities	Farmers	
Policy-makers	Farmers' associations	
Advisors	Facilitators	
Other (please specify)		



18. What are the types of actors involved in each multi-actor participatory cross exchange visits?		
Researchers	Consumers	
Universities	Farmers	
Policy-makers	Farmers' associations	
Advisors	Facilitators	
Other (please specify)		
19. What are the types of actors participatory events?	involved in other type of multi-actor	
Researchers	Consumers	
Universities	Farmers	
Policy-makers	Farmers' associations	
Advisors	Facilitators	
Other (please specify)		
20. What are the other type of mult organised by your TN? (give a sho		
21. Were/are you missing any typ	pe of actor in your project?	
○ Yes		
○ No		



22. If yes, what type of actors are/ were you missing in your project?
Researchers
Students
Policy-makers at international level
Policy-makers at national level
Policy-makers at local level
Advisors
Consumers
Farmers
Farmers' associations
Facilitators
Other (please specify)



23. Why was each type of actor approached?
Researchers
Students
Policy-makers at international level
Policy-makers at national level
Policy-makers at local level
Advisors
Consumers
Farmers
Farmers' associations
Facilitators
24. How was each type of actor approached?
Researchers
Students
Policy-makers at international level
Policy-makers at national level
Policy-makers at local level
Advisors
Consumers
Farmers
Farmers' associations
Facilitators



25. Why was each type of actor interested to join (motivation)?
Researchers
Students
Policy-makers at international level
Policy-makers at national level
Policy-makers at local level
Advisors
Consumers
Farmers
Farmers' associations
Facilitators
26. Were they involved in any other TN activity? Yes No
27. If yes, how were they involved? Create content Benefit only as end-user Both (create content and benefit only as end-user) Other (please specify)



28. How did the following types of actors contribute in the project and what was their level of contribution?

	Type of contribution	Le	evel of contribution
Researchers	\$		\$
Students	\$		\$
Policy-makers (international scale)	\$		\$
Policy-makers (national scale)	\$		\$
Policy-makers (local scale)	\$		\$
Advisors	\$		‡
Consumers	\$		\$
Farmers'associations	¢		\$
Farmers	\$		‡
Facilitators	\$		\$
Others	\$		\$

29. From when to when did they contribute?

	 ,	
	Period of contribution	
Researchers		‡
students		‡
Policy-makers (international scale)		‡
Policy-makers (national scale)		‡
Policy-makers (local scale)		‡
Advisors		‡
consumers		‡
Farmers'associations		‡
Farmers		‡
facilitators		‡
others		‡



30. To what extent is their contribution synchronous* (coordinated and homogeneous) with other actors' contributions?

	Extent
Researchers	*
students	\$
Policy-makers (international scale)	‡
Policy-makers (national scale)	‡
Policy-makers (local scale)	‡
Advisors	‡
consumers	\$
Farmers'associations	\$
Farmers	‡
facilitators	‡
others	\$



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31. Where the for the project?	ollowing actors engaged	in the	conceptual phase of
		Engaged	
Researchers		\$	
students		\$	
Policy-makers (international scale)		‡	
Policy-makers (national scale)		‡	
Policy-makers (local scale)		\$	
Advisors		÷	
consumers		\$	
Farmers'associations		\$	
Farmers		÷	
facilitators		\$	
others		\$	
	vant actors were missing of the project, who was		
	tor processes (such as f		s to interact emerge from eer-to-peer learning,
○ Yes			
○ No			



34. Which results/outputs are now available?
35. At what stage of completion of your project are the results made available?
Beginning
Mid-term
Termination phase
Full lifetime of the project
36. How did each type of actor benefit from the outputs of the project in the short term?
Researchers
students
Policy-makers (international scale)
Policy-makers (national scale)
Policy-makers (local scale)
Advisors
consumers
Farmers'associations
Farmers
facilitators
others (please specify)



37. How did e	each type of actor benefit from the outputs of the proje	ct
in the medium	n term?	
Researchers		
students		
Policy-makers (international scale)		
Policy-makers (national scale)		
Policy-makers (local scale)		
Advisors		
consumers		
Farmers'associations		
Farmers		
facilitators		
others (please specify)		



38. How did e in the long ter		enefit from the outputs of th	e project
Researchers			
students			
Policy-makers (international scale)			
Policy-makers (national scale)			
Policy-makers (local scale)			
Advisors			
consumers			
Farmers'associations)		
Farmers			
facilitators			
others (please specify)			
	ere the expected end t when it started?	d users of the innovation ca	arried out by
Researchers	s	Advisors	
students		consumers	
Policy-make	ers (international scale)	Farmers'associations	
Policy-make	ers (national scale)	Farmers	
Policy-make	ers (local scale)	facilitators	
Other (pleas	se specify)		



	ere the witnessed end ject at its actual stage	d-users of the innovation carrie e of completion?	d out	
Researchers		Advisors		
students		consumers		
Policy-make	ers (international scale)	Farmers'associations		
Policy-make	ers (national scale)	Farmers		
Policy-make	ers (local scale)	facilitators		
Other (pleas	se specify)			
	ver use a profession our project events?	nal moderator so as to help		
		Yes or No		
Demo		*		
Consortium meeting		\$		
Workshop		\$		
Other (please spec	cify which event and yes or n	0)		
42. What was	the frequency of the	following events?		
Demo				
Consortium meeting				
Workshop				
Other (specify) + frequency				

10



43. What was the ability of each e	vent to engage farmers?
	Ability level
Demo	\$
Consortium meeting	\$
Workshop	\$
Others (specify + ability level)	\$
44. Is there any impact indicator to engage farmers?	o evaluate the ability of events to
	Impact indicator
Demo	\$
Consortium meeting	\$
Workshop	\$
Others (Impact indicator + specify the event below)	\$
Other (please specify the type of event)	
45. If yes, please explain which the ability of demos to engage to	indicator has been used to evaluate farmers.
Number of participants	Interview
Evaluation grade	Discussions
Satisfaction survey	
Other (please specify)	



46. If yes, please explain which in the ability of consortium meeting	ndicator has been used to evaluate gs to engage farmers.
Number of participants	Interview
Evaluation grade	Discussions
Satisfaction survey	
Other (please specify)	
47. If yes, please explain which in the ability of <u>Workshops</u> to engage	ndicator has been used to evaluate ge farmers.
Number of participants	Interview
Evaluation grade	Discussions
Satisfaction survey	
Other (please specify)	
48. If yes, please explain which in the ability of <u>other events</u> to engage	ndicator has been used to evaluate age farmers.
Number of participants	Interview
Evaluation grade	Discussions
Satisfaction survey	
Other (please specify)	



•	uctive (regarding the cree/were the events?	eation of nev	w topics ideas, ways
	Pr	oductiveness level	
Demo		\$	
Consortium meeting		\$	
Workshop		¢	
Other events (please specify below the type)		‡	
Other events (pleas	se specify the type of event)		
	apply a specific method such as SWOT analysis ner ?		
	ave applied a specific m what methodology has	-	
SWOT (street	ngths, weaknesses, opportunities	s, treads)	
PEST (Politi	cal, Economic, Social, and Tech	nological factors)
PESTEL (Po	olitical, Economic, Social, Techno	ological, Ecologic	cal and Legal factors)
Other (pleas	e specify)		



2.4 Multi-actor approach
Involvement of stakeholders
52. Are meetings organised with farmers?
○ Yes
○ No
53. If yes, how often are they organised? (number per year)
E4. How many formers attended these meetings?
54. How many farmers attended these meetings?
55. Is there any impact indicator/evaluation method to measure the impact of the meetings?
○ Yes
○ No
56. If yes, what impact indicators did you use?
Number of participants Interviews
Evaluation grade Discussions
Satisfaction survey
Other (please specify)



57. What lessons have you learned from experienced projects and how would you approach things (differently or not) when you would start a new TN? (best practices)
58. What were the benefits for each type of actor <u>for being involved</u> in the project?
Researchers
students
Policy-makers (international scale)
Policy-makers (national scale)
Policy-makers (local scale)
Advisors
consumers
Farmers'associations
Farmers
facilitators
Others (specify + benefits)
Multi-actor structure and sustainability of the TNs
59. Is the TN sustained beyond the life of the funding?
○ Yes
○ No



60. If yes, how is this sustainability ensured?
operational groups
Focus groups
Linkages to existing initiatives
Other (please specify)
61. What recommendations would you make in order to better ensure the sustainability of the TNs ? (best practices)