NATIONAL WORKSHOPS REPORT TEMPLATE

IPMWORKS National Workshop *ITALY*

Date: 04-05/04/2024

Place: Pisa – Teams

Type: videoconference.

National Focal Point for *Italy*: Stefano Carlesi

Reporting person for this meeting: Federico Leoni & Stefano Carlesi

Participants:

Table 1 List with Name, position and affiliation of each participant

Federico	Spanna	Employee	Regione Piemonte - Settore Fitosanitario e Servizi Tecnico Scientifici, agricultural department
Danilo	Marandola	Researcher	CREA - Rete rurale nazionale (Research Center)
Loredana	Antonacci	Employee	Regione Emilia Romagna, agricultural department
Nigel	Fioretti	Administrative Manager	Agrites (consultancy company)
Pasquale	Falzarano	Administrative Manager	Ministry of Agricolture
Alessio	Ciaccasassi	Employee	Associazione Generale Cooperative Italiane (association of cooperatives)
Andrea	Zani	Administrative Manager	Deafal (NGO)
Giorgio	Trentin	Administrative Manager	Regione del Veneto, agricultural department
Luca	Boscolo Bielo	Employee	Regione del Veneto - Direzione Agroalimentare,, agricultural department
Stefano	Re	Employee	Terre dell'etruria societa' cooperativa agricola, cooperative

Mauda	Moroni	Employee	Regione Marche, agricultural department
Andrea	Cantatore	Employee	Direzione Generale Agricoltura - Servizio Fitosanitario regionale - Regione Lombardia, agricultural department
Laura	Bartalucci	Administrative Manager	Regione Toscana - Direzione "agricolture e Sviluppo Rurale", agricultural department
Antonio	Di Giorgio	Employee	Deafal (NGO)
Antonio	Zinni	Employee	Regione Abruzzo, agricultural department
Marco	Capurro	Employee	Regione Liguria, agricultural department
Stefano	Pini	Employee	Regione Liguria, agricultural department
Gloria	Manaratti	Administrative Manager	Regione Liguria, agricultural department
Laura	Bartalucci	Employee	Regione Toscana, agricultural department
Lorenzo	Tramacere	Researcher	University of Pisa
Federico	Leoni	Researcher	Sant'Anna School of Advanced Studies
Daniele	Antichi	Professor	University of Pisa
Paola	Cassiano	Researcher	Sant'Anna School of Advanced Studies
Paolo	Bàrberi	Professor	Sant'Anna School of Advanced Studies
Anna Camilla	Moonen	Professor	Sant'Anna School of Advanced Studies
Giovanni	Pecchioni	Hub Coach	Sant'Anna School of Advanced Studies
Virginia	Bagnoni	Hub Coach	Sant'Anna School of Advanced Studies
Stefano	Carlesi	Researcher	Sant'Anna School of Advanced Studies

1. *Agenda*

Two Online comparison sessions

Thursday 4 April, 10 a.m. - 12:30 p.m.

Technical-agronomic focus. Discussion session on reducing pesticide use on farms: success stories, obstacles and innovative ways of technology transfer

9:45 - Connection to the platform

10:00 - Presentation of activities (Stefano Carlesi)

10:10 - A holistic approach, functional use of biodiversity. Examples from the academy (Prof. Anna Camilla Moonen)

10:30 - Innovations in agriculture, two working groups with farmers

IPMWORKS (Virginia Bagnoni) and OPER8 (Lorenzo Tramacere)

11:00 - Coffee break

11:10 - Presentations by participants (Paola Cassiano)

11:30 - How to build an effective innovation hub? (Stefano Carlesi)

Interactive session to compare ideas and experiences in Italy on the most effective tools and methods of technology transfer, involving farmers, technicians and academics.

12:00 - AKIS (Agricultural Knowledge and Innovation Systems) and pesticide use reduction in Italy.

Interactive session to reflect on the actors active in implementing pesticide use reduction solutions in Italy.

12:20 - Conclusions and reflections on the Italian innovation system limits and emerging needs. Restitution of what has emerged (Federico Leoni)

12:30 - End of work and invitation to the Demo event held on 4 June 2024

Friday 5 April, 14:30 - 16:30

Political-administrative focus. Session of

discussion on the tools available to improve training and innovation systems in

agriculture

14:15 - Connection to the platform

14:30 - Presentation of the day's activities (Stefano Carlesi)

14:40 - Pesticide use reduction and on-farm innovation, Examples from the world of research

(Prof. Paolo Bàrberi)

15:00 - IPMWORKS and OPER8 research on innovation and interaction with policy makers

(Giovanni Pecchioni and Lorenzo Tramacere)

15:20 - Presentations by participants (Paola Cassiano)

15:40 - Interactive session: innovation in agriculture, barriers and proposals what new tools we can put in place (Stefano Carlesi)

16:00 - Interactive session: Support and projects already in the field, how are the Italian regions moving?

Italian regions? (Stefano Carlesi)

16:15 - Conclusions and reflections on opportunities to support the reduction of pesticide use through the strengthening of AKIS systems in Italy (Federico Leoni)

16:30 - End of work and invitation to the Demo event held on 4 June 2024

2. Outcomes on Session 1: Validation of the IPMWORKS recommendations

The two sessions were arranged thanks to the collaboration of the IPMWORKS and OPER8 projects. In the introductory part, the attendees were presented with the main elements depicting the fragility of conventional agricultural systems based on the use of external inputs, highlighting the need to find alternative solutions for agroecosystem management, which was a common goal for all attendees.

On the first day, the main focus was on the technical aspects related to technological transfer. The activities then cantered around some examples of pesticide reduction and the main difficulties associated with knowledge transfer from innovators to mainstream farms. Emphasis was placed on the need to raise awareness that the agroecosystem is a complex system, and that this complexity can be daunting. To approach complex systems, a holistic approach is required to develop sustainable systems. Agroecology is one of the most suitable approaches for studying complex systems. The discussion in the first part also touched upon the role of hub coaches. The role and activities of these figures were presented through the direct words of one of the hub coaches, who explained how hub coaches could be considered key figures for on-farm knowledge and technology transfer. They highlighted the soft skills needed to develop an effective direct contact with farmers and thus build a trusting relationship with them. This part was conducted through "Mentimeter" as a support to facilitate interaction among participants.

The participants introduced themselves or their group of work, locating themselves geographically and describing their activities in the process of bringing innovation into farming systems:

Danilo Marandola: CREA researcher, agro-climatic environmental policies. RDP on issues regarding sustainable use of plant protection products.

Gloria Manaratti: Liguria Region (services to agricultural enterprises, floriculture, nursery). Manager and funding body for PSR projects. Bulletins to inform farmers about monitoring activities and where control methods are also suggested.

Stefano Pini: Technical officer, Liguria Region (Sarzana). Involvement in the transfer of high innovations through participation in European projects and communication of monitoring results.

Pasquale Falzarano: Ministry of Agriculture, sustainable use of plant protection products. Contribution to the drafting of the National Action Plan for pesticide use. Involvement in knowledge transfer by coordinating work on the creation of sheets for AKIS.

Laura Bartalucci: Tuscany Region, agriculture and rural development. Interventions related to AKIS in the new rural development program and coordination of operational groups.

Stefano Re: Terre dell'Etruria Office. Part of projects for innovation and knowledge transfer.

Daniele Antichi: Professor of agronomy/agroecology.

Andrea Cantatore: Lombardy, regional phytosanitary service. Knowledge transfer through dissemination of bulletins.

Giovanni Pecchioni and Virginia Bagnoni: Hub coaches.

After the presentation of the main characteristics and issues of farmer hubs, attendees were asked through "Mentimeter" (see Figure 1) to indicate how much they agreed with the following statements:

1) Blue: They already know "Farmer hubs."
2) Pink: Farmer hubs are interesting tools to facilitate technological transfer.
3) Red: Farmer hubs are useful tools to reduce pesticide use.
4) Yellow: It may be difficult to implement farmer hubs in my geographical context.
5) Green: Farmer hubs may cost too much compared to the benefits.

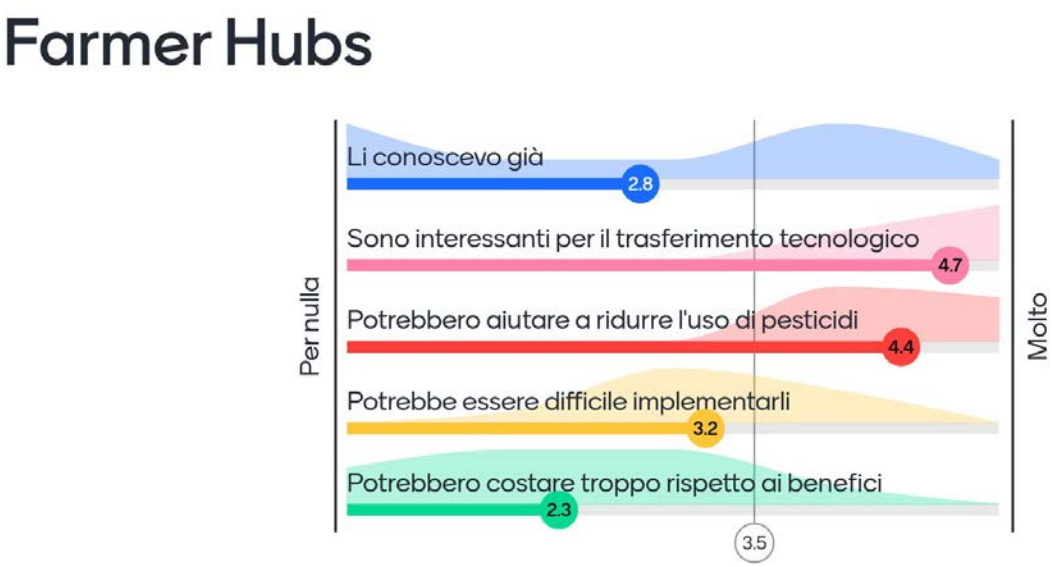

Figure1. Mentimeter output about agreement with different statement. English translation provided in the text.

The majority of attendees were already familiar with the concept of farmer hubs, while a minority were not aware of it. Everyone agreed on the positive role that farmer hubs can play in facilitating knowledge transfer and reducing pesticide use. Some doubts and concerns were raised about the complexity of managing farmer hubs, while the cost-effectiveness generally leaned toward a positive attitude toward farmer hubs.

Concerning the AKIS actors involved in IPM knowledge transfer, the debate was arranged around an open discussion with all attendees. The most experienced actors differed across regions. In the

northern part of Italy, regional services and private companies were considered the most skilled actors, followed by academic actors such as universities and research centres. However, everyone agreed on the poor involvement of farmer associations in the knowledge transfer process. The debate about interaction showed that universities and research centres were the most active in creating networks, particularly concerning funding opportunities, while cooperatives and other public actors were seen as moderately involved in proactively creating networks.

Attendees were then asked to share their opinions on the major difficulties in establishing a farmer hub in their target context and to discuss each post together. As reported in Figure 2, the main difficulties were identified as:

- Individualism, competition, and distrust
- Finding good animators and people capable of coordinating farmers**: Danilo Marandola** commented that farmers are usually less inclined to share knowledge, so hub coaches must be good and trained. They must be skilled at striking the right chords to break down the walls of distrust. He also considered it crucial that innovative farmers be valorised as examples for neighbouring farmers. He suggested that farmer hub activities might be better organized if facilitators are from the local area because knowledge of local dynamics is crucial to increasing reliability from local farmers.
- Anagraphical issues, with older farmers not predisposed to these activities: **Laura Bartalucci** supported the idea that generational turnover is changing the trend of agricultural innovation and technological transfer. Young people are usually more open to these experiences and more receptive to innovation. Tenant farmers are often people who come out of agriculture and are therefore more open to implementing innovation.
- Finding professionals to manage hubs
- Lack of sensitivity on the part of farmer organizations
- Willingness to share and availability of financial resources

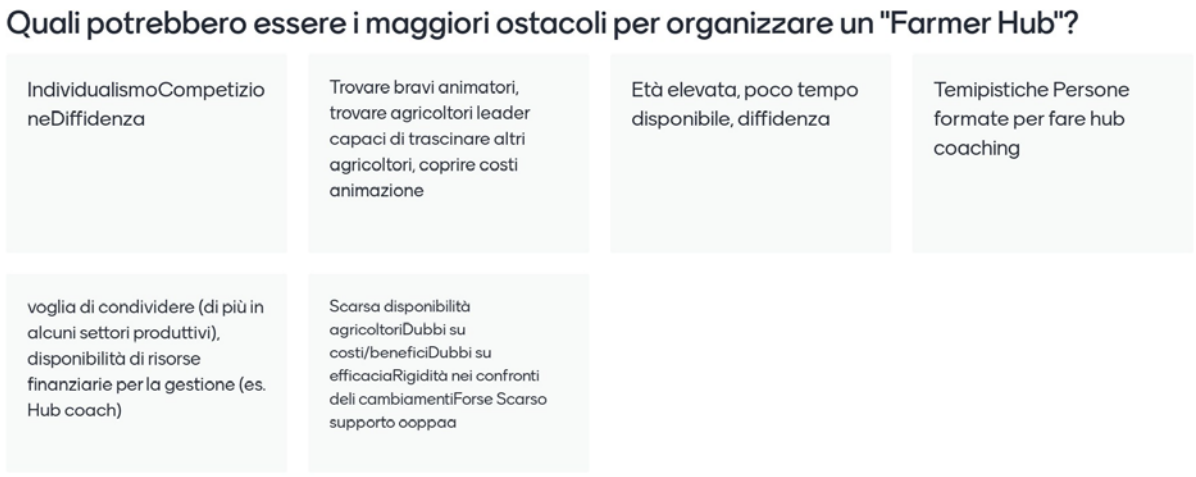

Figure 2 Attendees post concerning obstacles in build up a farmer hub.

The next question posed to attendees was about creating a new farmer hub, and what elements they would use to make the farmer hub effective in achieving the goal of pesticide reduction in their respective areas of work. As reported in Figure 3, attendees raised different elements to consider and were asked to comment and elaborate on some of the aspects raised:

Funding, funds to facilitate farmer participation and purchase technical inputs to support input reduction :

- Economic spin-offs with descriptions of success stories
- Local testimonials
- Peer exchange
- Greater involvement of farmer organizations
- For universities, time-limited projects and a lack of organic funding to make farmer hub activities ongoing

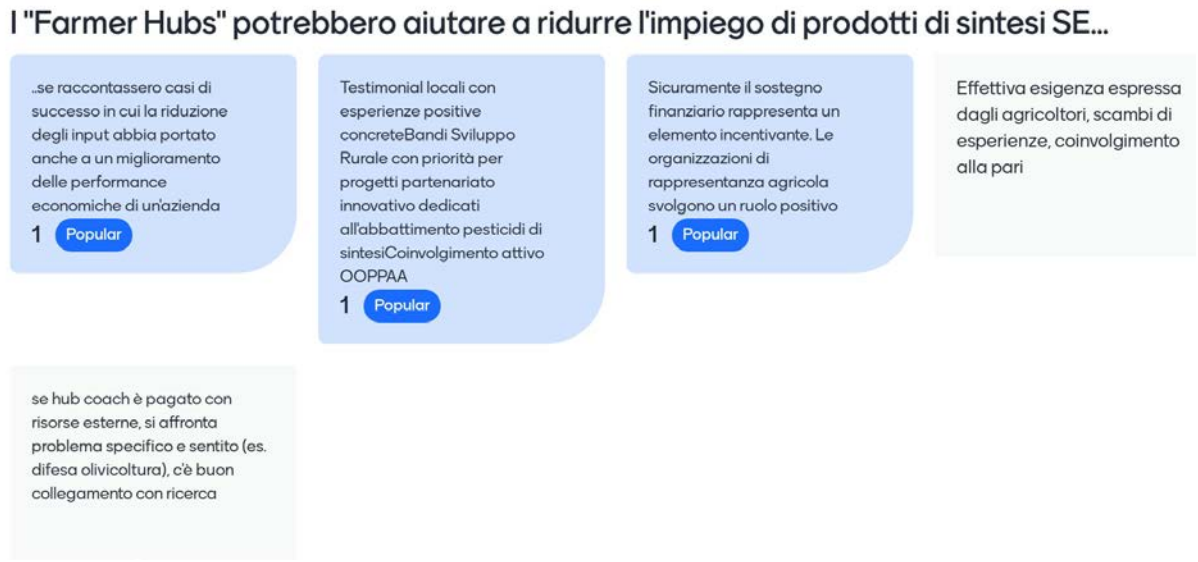

Figure 3 Attendees post concerning how to build up an effective farmer hub.

Finally, attendees were asked to consider how easy it would be to implement different techniques in their respective contexts to manage and reduce integrated pest management. The results were reported in Figure 4:

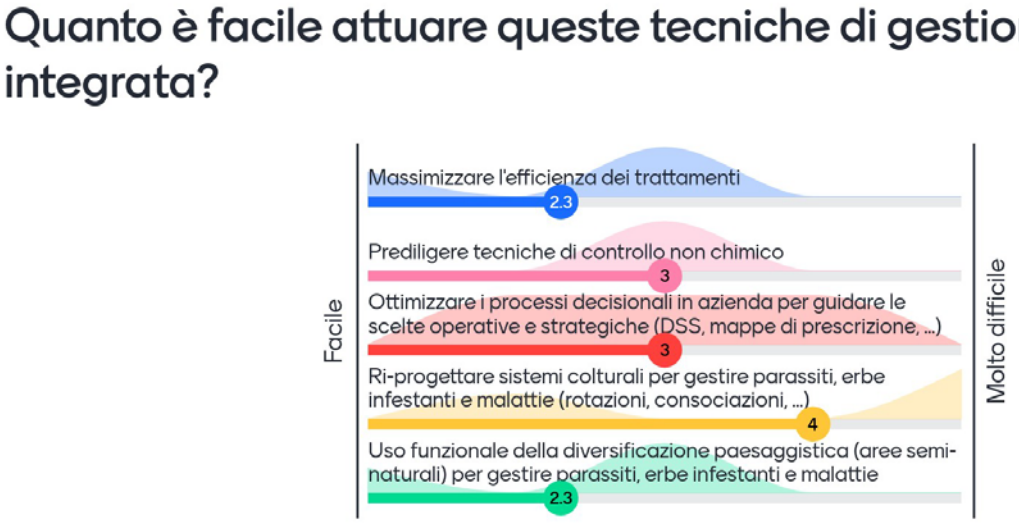

Figure 4. Mentimeter output about agreement with different statement. English translation provided in the text. Than attendees were asked to share their opinion about, which may be the main difficulties in applying different agroecosystem management and innovation.

1) Blue: Efficiency maximization
2) Pink: Prefer non-chemical treatments
3) Red: Optimize decision-making processes
4) Yellow: Re-design cultural systems
5) Green: Functional use of landscape

Concluding the first part of the session, a complete recap was given by Federico Leoni to all attendees, and a general discussion was opened to include additional elements. Overall, the sessions highlighted the fragility of conventional agricultural systems and the need for alternative solutions like agroecology to manage complex agroecosystems sustainably. Farmer hubs were recognized as valuable tools for facilitating knowledge transfer, reducing pesticide use, and fostering innovation. However, several challenges were identified, including individualism, distrust, generational gaps, lack of sensitivity from farmer organizations, and the need for funding and skilled professionals. The discussions emphasized the importance of a holistic approach, involving various stakeholders, peer exchange, local testimonials, and economic incentives to make farmer hubs effective in promoting integrated pest management and sustainable farming practices. One of the main issues that emerged was the importance of finding appropriate funding lines to sustain farmer hubs. However, this part of the discussion was introduced but postponed to the following session. All attendees were invited to the demo activities planned for June 4th in Pisa, involving open field hub activities.

3. *Outcomes on Session 2: IPMWORKS strategy for Long Term Sustainability*

- **Information to be provided**

Country: Italy

Date of meeting: 5th Aprile 2024

Number of attendees: 26 + 3 organizars

Typology of attendees: see table 1

Level of action of attendees: national and regional (regions are reported in Table 1)

Types of funding identified: Rural development projects 2023-2027

National/regional initiatives identified: SRG09 , SRH02 SH04 SRH05

Next steps: Prepare an interprovincial proposal for SRG09 as SRG01 to set condition to achieve the opportunity to apply as farmer hub to founding SRH02 SH04 SRH05

The activities of the day were introduced by Stefano Carlesi. The introductory lesson about the feasibility of pesticide reduction in real farm was held by Professor Paolo Barbieri who brings some testimony of research activities that bring to pesticide reduction using different level of agroecological integration in pest management strategy like cover cropping, dead mulch, sod seeding binded with participatory approach.

Then different experience from the two projects were depicted; Giovanni Pecchioni explained which skills and knowledge are needed to establish groups of farmers to promote the adoption of practices that can reduce the use of pesticides. Then the effort and the cost related to the establishment of a farmer hub were illustrated, as the procedure to work in a farmer hub and the crucial role of the hub coach who supports the farmers and acts as an intermediary between the research world and the farmers highlighting how crucial would be to create continuity in training and hub activities .

Lorenzo Tramacere (Oper8) examined how important is for both the research projects to establish a dialogue with the political side to discuss about future funding plans. And methods to support technological innovation in farm to reduce pesticide application.

Participants introduced them self explaining were they work and how they are involved in the programming and designing the policy to sustain tools as farmer hubs. Manly the attendees work at regional level, in particular in LIGURIA, TOSCANA, LAZIO, VENETO, ABBRUZZO, (Center and Noth Italy) and only 2 works a the national agricultural ministry.

Antonio Zinni: works for Regione Abbruzzo, agri-environmental section at the management of Rural development programs in particular he is involved with the writing and implementation of new measure for reducing the use of plant protection products.

Marco Capurro: Liguria Region, works about AKIS package new Rural development programs.

Luca Boscolo: Veneto Region, official in the agricultural sector and AKIS for consulting and training.

Giorgio Trentin: AKIS and food production. He expressed high interest to the hub methods, seeing the project IPMWORKS very interesting.

Pasquale Falzarano: Ministry of Agriculture, works on sustainable use of plant protection products. Contribution to the drafting of the National Plan of Action. He his also involved in knowledge transfer by coordinating work on AKIS activity at the ministry of agriculture.

Danilo Marandola: CREA (researcher Center for agriculture), works manly on agro-climatic environmental policies. HE is also involved on Rural development projects and similar issues concerning the sustainable use of plant protection products.

Stefano Re: Terre dell 'Etruria Office. Part of the projects for innovation and knowledge transfer.

Daniele Antichi: professor of agronomy/agroecologist deeply involved in research at farm level.

4. Outcomes on open discussion

Topic 1 - **difficulties in establishing a farmer hub in their context**.

During the participatory session was asked to the attendees what are the **m**ain difficulties in establishing a farmer hub in their context of work. The main obstacles were individuated on social issues concerning individualism, competition between farmers and distrust between different actors involved in the production chain. Another crucial limit was found in the opportunity to hire animators and technicians skilled to coordinate farmers. Danilo Marandola highlighted that many farmer he worked with are unaccustomed to sharing knowledge and mean of productions. He than shared his opinion about the need for well-prepared professionals that has to remove the strong presence of distrust between different element of the productive chain. He also report some example of positive action form other farmer that assuming a posture as farmer leaders, represented a positive example to follow for other farmers. It also highlighted the importance to have animators raised in the area were they should act to better understand the cultural element related to the cultural barriers that obstacle the knowledge sharing. Laura Bartalucci, reported that anagraphical issues could be a major issues not very easy to overcome. I particular she report that older farmer are usually less prone to take part to a farmer hub anyway she has a positive experience with younger and educated farmers . In her experience younger farmers are usually more open to sharing experiences and more open to innovation. They also noticed that farmer coming with a less rural background are often people who come from outside agriculture and are therefore more open to implementing innovation.

Conclusions:

Everybody agreed on the need to have trained professional manager for setting up farmer hub

And everybody denounced the lack of involvement from farmer representative in action addressed to reduce pesticide use in farm or increase the innovation in farms. Another element that show an higher percentage of consensus was about the lack of financial resource inside farm to directly finance farmer hub from farms and the need to look for external and public resources.

Topic 2 – **Tools available or future plan to sustain farmer hub creation and activities**.

After having depicted a picture of the main tools and obstacles to reduce pesticide use in farms, a session to reflect about the already exiting tools or the near future plan to sustain farmer hub creation and activities was started. It was asked the attendees to depict which were de initiative already existing that may shared between attendee to see how different region are acting to favour pesticide use in practice.

The main reflection lied on AKIS development and different rural development project run by different regions. Manly all regions have developed initiative to favour a creation of a local AKIS, anyway all the regional representative , except the Veneto one agreed on the limited efficacy of the tools developed. It was mainly agreed that a stable public extension service would have been crucial to develop such tools and professionality need to set up farmer hub, but quite all regions dismantled these kind of

services in the 90’ to favour private or semi public (farmer association) kind of extension service, anyway with quite poor results in term of progress in innovation. In particular training course for creating figures like hub coach seems to lack at regional levels. Veneto region showed an interesting experience developing a sort of technical academy to develop soft skills and create opportunity for new hub coach to be trained., focusing on 3 Type of actors: 1) Actors able to aggregate farmers and other actors 2) Actors able to communicate and train new coach to communicate to farmers 3) Actors able to create synergies between farmers and built trust between different actors

Everyone agrees on the need to involve Research Organization in project developed by regional agricultural office and a list of different initiative on Training and implementation measure were presented. Abruzzo Regions explained new Financial support developed for farmers and to support farmers to learn how to access to financial support.

Conclusions:

From expert working in Tuscany the main suggestion was about the opportunity to join regional call, as first in time line SG09. Those calls have has their main aim to support AKIS initiative as to develop access point to AKIS, aggregate farms need around similar issues, as pesticide reduction, provide financial support in arranging demo events integrated between farms, with a particular focus on peer to peer learning and participatory research initiatives. Other topic concern financial support to demo farm working as light house to spread innovation around nearby farms thanks an higher level of innovation developed in farm, and interaction with different actors, as researchers, innovative company proposing new solution. This first call in 2024 will be followed by call as SRG01 support for operational and PEI group. For 2025 new opportunity will be provided by SRH02 that can support opportunity for training of new hub coaches, SH04 financial founding for initiative to sustain hub dissemination activities and SH05financial founding for initiative to sustain hub demo events and activities to peer to peer learning. The activities of the hub to achieve long term sustainability in Italy will be a path developed in close relation with regional rural development projects.

At the end of the meetings all the attendees were invited to the demo activities planned for June 4th in Pisa, involving open field hub activities.