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## DO EIP INTERACTIVE INNOVATION APPROACHES INTERACT EACH OTHER?

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### ABSTRACT

This study wants to analyse the extent to which the different research and innovation (R&I) instruments designed under the European Innovation Partnership for Agricultural productivity and sustainability (EIP-AGRI) look for synergies and intensify effective linkages with each other to strengthen the respective dynamics. The study is based on a case study representing the Italian EIP-AGRI system. Data are collected through direct interviews, semi-structured questionnaires, focus groups and workshops. This study is a preliminary investigation of more in-depth researches aimed at analysing all the complex multi-level and multi-actor dynamics and the cross-scale interactions along the whole innovation systems. The different tools and levels of EIP-AGRI management rarely seem connected. Horizon 2020 programs relate only sporadically, if at all, to the innovative projects developed by operational groups (OGs). The latter succeed in improving the local contexts dynamism, but for the most part, their effort remains confined to the local level. The study points out a lack of adequate implementation guidelines focused on multi-level and intra-sectorial governance, implementation methods related to different forms of synergies, coordination and complementarity between multi-actor projects. The paper reveals the importance of an adequate framework that defines the right interactions between programs, projects, actors and R&I contents. In the absence of these provisions, multi-actor approaches are limited to the design level and the Agricultural Knowledge and Innovation System (AKIS) is not able to develop in a more coherent system of innovation. The paper represent the first attempt to assess the effectiveness of the EIP-AGRI implementation. It points out some strengths and weaknesses of the innovation systems drawn through the EIP-AGRI concept.

**Keywords:** Interactive innovation, EIP-AGRI, multi-actor projects, operational groups, innovation policies.

### INTRODUCTION

The European Innovation Partnership for Agricultural productivity and Sustainability (EIP-AGRI) was launched by the European Commission in 2012, with the EC communication (COM 2012 of 29/02/2012) on the European Innovation Partnership “Productivity and Sustainability”. It aims to promote the main goals of the CAP (efficient and competitive agricultural sector, sustainable supply of food, adaptation and mitigation to climate change, etc.) while supporting better coordination between research and practice.

The EIP-AGRI applies an overarching concept based on the interactive innovation model aimed at fostering collaboration between various actors to make best use of complementary types of knowledge (scientific, practical,

organisational, etc.) in view of boosting the co-creation and diffusion of solutions/opportunities ready to be implemented in practice (EU SCAR, 2013).

This model mainly relies on the concept of Agricultural Knowledge and Innovation Systems (AKIS) defined by the SCAR-AKIS working group. It describes a coherent system of innovation, with emphasis on the organisations involved, the mutual links and the many interactions between them, including the institutional infrastructure with its incentives and its budget mechanisms’ (Dockès *et al.*, 2011; EU SCAR, 2012). This concept merged the AKIS (Röling, 1990; Röling & Engel, 1991) and AIS (Leeuwis & Ban, 2004; World Bank, 2006) standpoints, being inspired by a transdisciplinary and holistic systems perspective. In the systems model knowledge and information can flow from different sources and may emerge outside the formal learning world through the interaction among different actors

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(Klerkx *et al.*, 2012; Assefa *et al.*, 2009). This brings the need for ‘social learning’ to the forefront of innovation policy. In this perspective, the interactive innovation processes fostered by the EIP-AGRI aims at connecting actors to encourage knowledge exchange and enhance cross-fertilisation, in view of generating, using and diffusing innovation.

This approach is reinforced by an overall research and innovation (R&I) strategy aimed at improving the coordination and consistency among the different support sources to further strengthen prospects for

effective rural innovation processes.

The EIP-AGRI is mainly supported by the rural development policy (EC Regulation 1305/2013 on support for rural development by the European Agricultural Fund for Rural Development (EAFRD)), through the setting-up of the European EIP-AGRI Network and the Operational Groups (OGs) at national/regional level, and the European research policy (Horizon 2020), which links research with practitioners via the implementation of multi-actor projects and Thematic Networks (TN) (Figure 1).

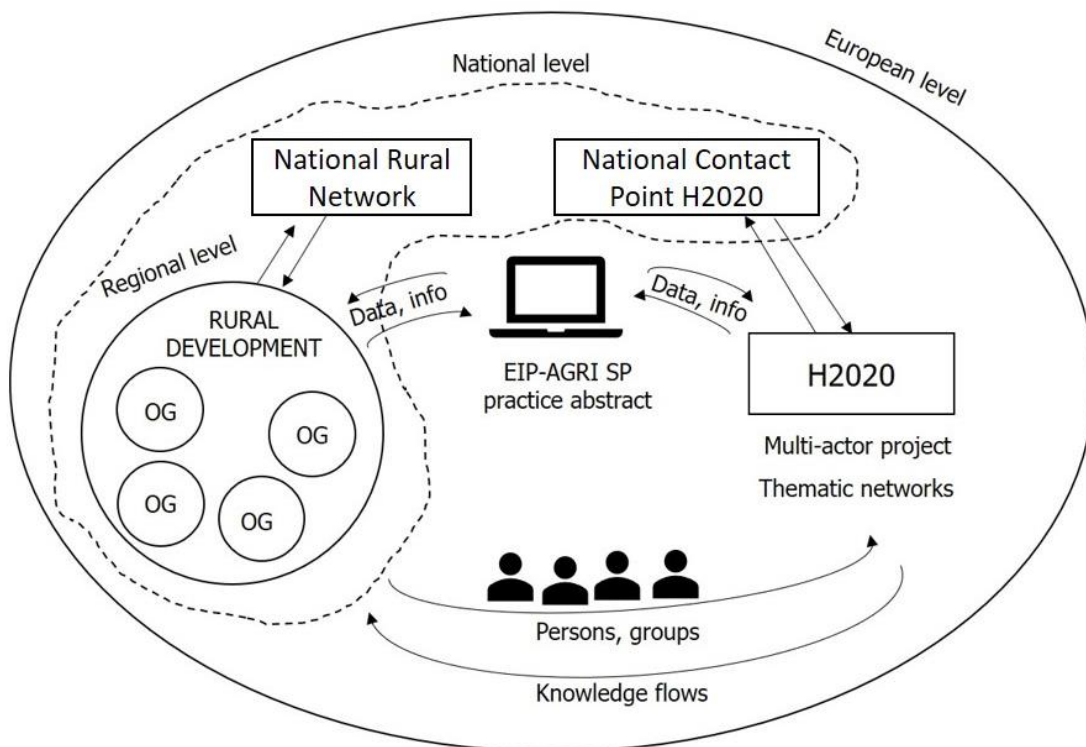


Figure 1. Connection between policies, instruments and actors: the EIP-AGRI framework.

The development of interactions among the different types and fields of multi-actor projects is intrinsic to the European Innovation Partnerships (EIPs) which are intended as tools that pool forces and interlink different actions to achieve breakthroughs concerning the major societal challenges<sup>1</sup>. Particularly, the EIPs aim to “streamline, optimise resources, avoid duplications, simplify, and better coordinate existing instruments and initiatives and complement them with new actions or a

more coherent policy framework where necessary” (CREA-PB *et al.*, 2017). Also, the Common Provisions Regulation for the European Structural and Investment Funds (ESIF)<sup>2</sup> encourages synergies between ESIF and Horizon 2020 to maximise the quantity and quality of R&I investment and their impact. Synergies are included in the design and implementation of the smart specialisation strategies (S3) that outline the priorities for ERDF investments in the current programming period (Bachtler & Polverari, 2017).

To foster the reinforcement of linkages between the

<sup>1</sup> The concept was set out in the 2010 Commission Communication ‘Europe 2020 Flagship Initiative. Innovation Union’, European Commission, Directorate-General for Research and Innovation, Brussels

<sup>2</sup> Annex 1 of the CPR Regulation (Regulation (EU) N. 1303/2013 of 17 December 2013)

different R&I initiatives, to prove better and seamless support to the entire discovery, research, development and innovation process, and to ensure a better exploitation of projects/programmes results, the Commission also published a specific guidance for policy-makers and implementing bodies<sup>3</sup> and a specific brochure for interested parties with examples of synergies<sup>4</sup>. After three years since the implementation of the EIP-AGRI, it seems appropriate to take stock of the effective synergic implementation of the different R&I instruments, in view of verifying strengths and weaknesses and analysing their adequateness in strengthening knowledge flows and linkages within the AKIS.

Indeed, there is a real need to provide a better understanding of the potential and use of interaction between the different R&I instruments, as highlighted by the European Commission<sup>5</sup> and the SCAR-AKIS working group<sup>6</sup>.

The results of the study also represent key issues for the improvement of the EIP-AGRI performance in view of the next CAP programming period.

**Multi-actor approaches and their interactions in research and innovation:** Operational Groups are funded under measure 16 of Rural Development Programmes (RDPS). The OGs funding supports the implementation of projects involving a wide variety of

actors, from different sectors and social backgrounds, with the common goal of identifying an innovative and concrete solution aimed at solving a particular problem or exploiting an opportunity. OGs promote an interactive approach to innovation aimed at developing new practices for farms and forestry through the implementation of previous research findings, the realization of new ideas, the testing and adaptation of existing techniques / practices to new geographical / environmental context.

Regarding Horizon 2020 programme, many projects, funded under the Societal Challenge 2, implement a bottom-up and multi-actor approach, thus involving partners from various scientific disciplines and areas of practice, with the aim of ensuring greater effectiveness in the definition of research and dissemination of results. According to the multi-actor approach, end-users and multipliers of research results, such as farmers and farmers' groups, advisors, enterprises and others, must be closely involved throughout the whole project period in view of using their entrepreneurial skills and practical knowledge to develop innovative solutions that are more likely to be applied in the field. Particularly, thematic networks are multi-actor projects which collect existing knowledge and best practices on a given theme to make it available, beyond the lifespan of the project, in easily understandable formats for end-users (farmers). For this study, by "interactions" we intend any action which makes one multi-actor project or partnership influenced by or influential to other ones. Such interactions could be set upon complementarities and/or synergies among H2020 and OGs projects.

The need to implement such interactions to face the increasing competitive pressure from global markets and maximise impact and efficiency of public funding is underlined by the European Parliament and clearly stated in the regulatory frameworks of the European Structural and Investment Funds (ESIF), Horizon 2020, and other EU programmes directly managed by the Commission in the areas of research, innovation and competitiveness. In principle, the coordination, synergies and complementarities between the funds need to permeate all layers of stakeholders, at Member State level, as well as Commission services level, including intermediaries and facilitators' networks (European Commission, 2014).

In line with the European Commission (2014) wording, by complementarities we intend the activities that build

<sup>3</sup> European Commission (2014), Enabling synergies between European Structural and Investment Funds, Horizon 2020 and other research, innovation and competitiveness-related Union programmes. Guidance for policy-makers and implementing bodies, Directorate-General for Regional and Urban Policy, Brussels

<sup>4</sup> European Commission (2016), EU Funds working together for jobs and growth. Examples of synergies between the Framework Programmes for Research and Innovation (Horizon 2020) and the European Structural and Investment Funds (ESIF), Directorate-General for Research and Innovation, Brussels

<sup>5</sup> European Commission, H2020, RUR-16-2017: Optimising interactive innovation project approaches and the delivery of EU policies to speed up innovation in rural areas

<sup>6</sup> SCAR Strategic Working Group on AKIS: Call for Tender - Study on "Synergies among EU funds in the field of research and Innovation in Agriculture", Brussels, December 2017

upon strengths and consider for the limitations in each other (project implementation). While for coordination we mean the information shared about resources, goals, processes, and timelines to reduce duplication and increase complementarities (governance of EIP-AGRI implementation).

The concept of synergies<sup>7</sup> entails joint or coordinated efforts to achieve greater impact and efficiency, particularly through:

1. bringing together Horizon 2020 and EARDF money in the same project (that could be a single action or a group of coordinated actions/operations, but always providing that there is no double funding of the same expenditure item);
2. successive projects that build on each other;
3. parallel projects that complement each other;
4. EARDF programmes could also be designed and implemented to take up high quality project proposals from Horizon 2020, for which there is not enough budget available in the respective programmes.

The first studies concerning synergies between framework programmes for research and innovation highlight very limited synergies between these programmes (Ferry et al., 2016; JIIP, 2017).

Despite the strategic willingness to ensure complementarity and synergies of Horizon 2020 with other EU programmes, strong evidence is lacking on how far this has materialised in practice yet. Given the different rules and implementation structures, promoting synergies at project level (in term of combining different financing sources for the same project) still appears difficult. Further, the difference in state aid rules leads to legal uncertainty for potential beneficiaries (Bachtler & Polverari, 2017).

Linkages between OGs and Thematic Networks (EU level) are still weak. As more OGs are created, the role of EU level H2020 Thematic Networks (TNs) in facilitating effective exchange between OGs working on similar

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<sup>7</sup> The concept of synergies within the European R&I framework was defined by the European Commission (2014), Enabling synergies between European Structural and Investment Funds, Horizon 2020 and other research, innovation and competitiveness-related Union programmes. Guidance for policy-makers and implementing bodies, Directorate-General for Regional and Urban Policy, Brussels, pp. 2-3

topics and promoting the findings from OGs to additional Member States should be reinforced (Coffey *et al.*, 2016).

**Research questions and methodology:** The overall research relies on a case-study methodology which is practice-oriented and allowed capturing the complexity of different actors, multi-level policy designs, governance and arrangements which shape the interactions between multi-actor projects. The study is limited to the Italian EIP-AGRI system (Figure 2), due to a difficulty to involve local actors of other member state in a multi-level analysis. However, this study represents a preliminary investigation, which will be complemented by more in-depth researches aimed at analysing all the complex innovation system at the European level<sup>8</sup>.

The results of the field research were validated by mean of a workshop at national level<sup>9</sup> and a round-table at international level<sup>10</sup>, which allowed comparing experiences and perceptions of other multi-actor projects partners and taking advantage from the triangulation of different perspectives.

The research was developed by using both on desk and on field investigations which allowed capturing the different perspectives of actors involved in H2020 and in local-level multi-actor projects, namely thematic networks and other multi-actor research projects at international level and operational groups funded under Rural Development Programmes (RDPs). The study was driven by three overarching questions:

- 1) to what extent do national/local policies create the conditions for building linkages between H2020 multi-

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<sup>8</sup> SCAR Strategic Working Group on AKIS, Study on: "Inventory of Research and Innovation Infrastructures improving knowledge flows in the field of Agriculture" and Study on: "Synergies among EU funds in the field of research and Innovation in Agriculture", January 2018 - December 2018

<sup>9</sup> "Progetti multi-attore per la ricerca e l'innovazione in agricoltura: un'opportunità di dialogo", workshop organised by the National Rural Network, Milano (IT), 11 December 2017

<sup>10</sup> "Multi Actor Approaches: a key device for speeding up innovation", 23rd European Seminar on Extension and Education, Chania, Crete (GR), 7 July 2017 <https://www.reterurale.it/flex/cm/pages/ServeBLOB.php/L/IT/IDPagina/18180>

actor projects and OGs or other innovative projects at local level?

2) What determinants and constraints do affect mostly the effectiveness of current instruments aimed at supporting interactive innovation in agriculture?

3) To what extent do multi-actor projects flow into the local innovation systems, thus generating new insights and innovation projects?

In order to answer to the three research questions, investigations were targeted to assess, respectively<sup>11</sup>:

1. the number and typologies of interactions developed between different multi-actor projects, particularly in terms of new co-innovation projects taken up by OGs and of common initiatives/activities among partnerships (dissemination, peer-to-peer, ....);
2. constraints and determinants for the effective implementation of complementarity and development of synergies between multi-actor projects; facilitation, communication and networking activities aimed at fostering interaction, in which timing and under what conditions;
3. the extent to what regional policy strategies and delivery systems are likely to enable the environment for interactions between the multi-actor projects, and by which governance arrangements, activities and tools.

A focal point of this approach is to deep the policy and delivery chain of single RDPs under which the interactions between multi-actor projects should have been activated and managed. To this aim, three regional cases were analysed, in order to take advantage from different strategies and arrangements applied in different policy and governance systems (Figure 2). The regional sub-systems to be analyse were identified based on their advancement in the OGs implementation.

On desk research was the basis for analysing the different policy and administrative arrangements set up to enable possible interactions between multi-actor projects and relevant institutions both at EU and regional levels. Particularly, it was focused on mapping the institutional stakeholders and analysing RDPs designs and arrangements, manuals for applicants, prizes, selection criteria, information and dissemination

<sup>11</sup> The assessment criteria were articulated into twenty questions and three semi-structured questionnaires targeted to the subjects to be interviewed.

to potential projects' partners, organizational structures of relevant institutions, etc.

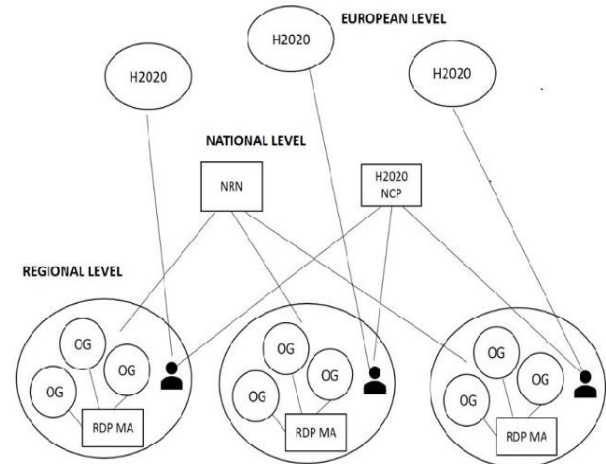


Figure 2. Multi-level governance of EIP-AGRI in Italy.

The investigations on the field was predominately oriented to a multiple perspective approach which allowed the authors to capture the viewpoints of different types of stakeholders who are currently working within the same context. The analysis was carried out through semi-structured interviews to multi-actor projects partners (H2020 partners, OGs partner) and to representatives of the managing authorities (MAs) of RDPs.

For each regional case, at least three OGs and two partners of H2020 multi-actor projects/thematic networks were interviewed. The workshop at national level was participated by a high number of partners of both H2020 multi-actor projects and OGs (about 100 persons).

## RESULTS

The study widely confirmed key issues which were already arisen by previous studies at European level (European Policies Research Centre, 2017; European Commission, 2016) and, above all, allowed to achieve a better interpretation and a deepened understanding of some perceptions about the factors which are influencing the effective development of interactions among multi-actor projects. Despite the advanced stage of implementation, there is still a low understanding about the functioning of EIP-AGRI and the feasible interconnections between H2020 research projects and innovations funded under the EAFRD.

Up to now, the common framework of EIP-AGRI multi-actor approach struggles to be effectively applied and connections between research and farms are still weak.

**Evidences of synergies and complementarities between multi-actor projects are very few:** The lack of basic information about H2020 multi-actor projects at local level and the shortage of knowledge concerning the opportunities arising from research results, which could be developed into practical innovations, are the most hindering factors to the development of synergies and complementarities. Out of the actual Italian 147 selected operational groups, very few cases refer explicitly to the up-taking of the results of H2020 research projects, even in those OGs whose partners are also participating in H2020 projects.

**Knowledge gained in networks and multi-actor projects is effectively put in practice in OGs projects:** Current Italian OGs seem to be born from consolidated territorial networks and face local problems/opportunities, not specifically related with H2020 projects. In some cases, OGs are linked to previous partnerships and projects funded under RDPs 2007-2013.

Currently, one of the OGs under observation, is clearly taking advantage of the results and the competencies acquired by a partner who is participating in a H2020 TN. In this case, the major determinant seems to have been the presence of this H2020 partner in a well consolidated territorial network, which is in good connection with local practitioners (farmers, advisors, etc.) across Italy. This network is now acting as innovation broker for several OGs which apply for support under different RDPs. In other cases, we found that the competencies acquired within H2020 multi-actor projects, have been capitalised in thematic networks and OGs even without the full awareness about the continuity between projects that are being implemented. In these instances, the tacit contamination between multi-actor projects is mainly due to the presence of a H2020 partner within the OGs. Therefore, a synergy can be observed both in knowledge transmission among the partners and in the partnership composition.

**The awareness of multi-actor projects partners about possible interactions is very weak:** The partners of current H2020 multi-actor projects do not really foresee any opportunity for the further implementation of the results of their researches by means of innovation projects to be carried out at farm level. This is mainly due to the lack, within the research project, of the final users' perspective. In other words, researchers do not recognize the potential of their

projects in answering to practical problems of the farmers (because the linkages between the academic community and farmers are still weak). Even in case of a major awareness concerning the opportunity to promote the up-take of H2020 research projects at farm level, the lack of connections with farmers and other practitioners is pointed as an obstacle to the effective development of innovation projects at local level.

These evidences show, somehow, the failure of the multi-actor approach of H2020 projects; indeed, they prove that the end-users of H2020 project are not really involved in such projects since the very beginning and along the project implementation.

**Persisting top-down approach at H2020 multi-actor projects...:** H2020 projects are still much focused on research 'per se' according to a top down approach that struggles to fully involve local actors in co-innovation paths. Even now, farmers, OGs and other actors are mainly used to finalize case studies, as well as to raise selection score. Unlikely, H2020 research projects explicitly foresee a take-up at local level. This possibility may be taken into consideration just in case of further resources specifically dedicated or priority criteria to access additional funding in RDPs.

**Different experiences in the cases of TNs:** Some TNs are widening their scope for action by specific dissemination activities of research results, as well as a continuous involvement of end-users. This happens both through the communication with the EIP-AGRI service point and through the support to local groups that are raising at local level. Specifically, the TN CERERE carries out local training workshops and provides for an on-going enlargement of its network by mapping and involving all the actors who work on cereal innovation (Figure 3).

**Willingness at territorial level to interact with H2020 projects:** Despite the lack of evidence of effective interactions among the different types of multi-actor projects, the interviewees declare to be interested and willing to acquire major information and to develop synergies with each other.

Knowledge exchange about feasible solutions to practical problems or opportunities seems to be the most relevant activity to support interactions.

One of the OGs under observation is specifically trying to connect with a H2020 project and a TN with the aim of enhancing its own activities and learning about other solutions to be implemented. The partners of the group



are aware about the importance of exchanging information, knowledge and material, within different knowledge levels, also in view of developing their supply

chains. In this perspective, the OG uses different information channels, including the newsletter of H2020 projects.

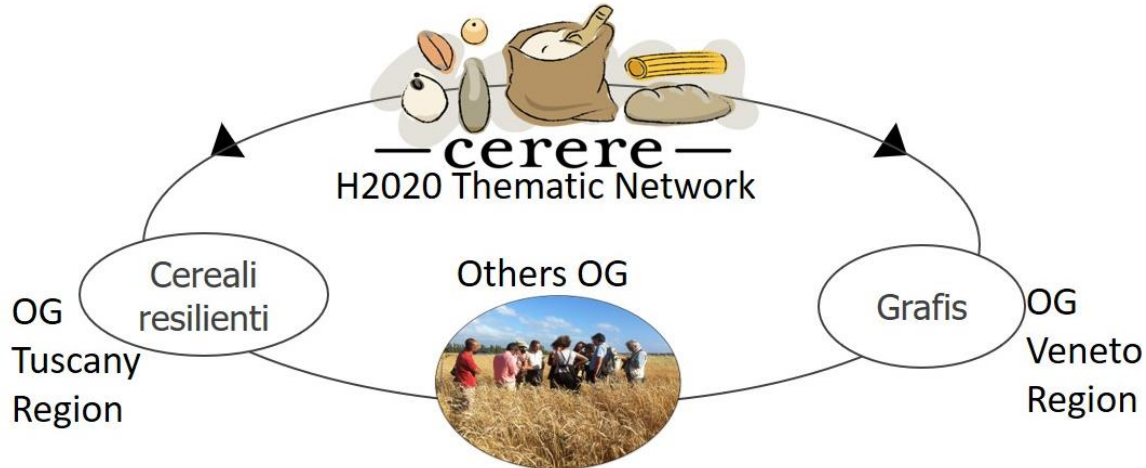


Figure 3. Knowledge sharing through the Thematic Network CERERE.

**Difficult access to information:** The EIP-AGRI dissemination tools/channels prove to be not fully adequate to maximize the impacts of research and innovation projects. The EIP-AGRI web-site is scarcely used both by practitioners and researchers. In particular, small farms seem to have no means or time to look for information.

Indeed, these tools have been formerly addressed to the RDPs' Managing Authorities, with the aim of explaining the opportunities concerning the OGs. Therefore, there is the need to re-target the EIP-AGRI communication channels in order to reach all the different stakeholders. Besides, a major constraint is represented by language: there cannot be widespread innovation till only English language is used.

**Lack of awareness about the opportunities for interaction:** Research and innovation are on twin-tracks. Farmers and OGs partners have the perception that H2020 projects move on scales and levels that are difficult to apply within the farms. This is mainly due to the nature of these projects (excellence of research), to the cultural gap between research and agriculture, to language issues. Therefore, at local level, H2020 projects are hardly recognised as natural interlocutors /partners.

**Intermediaries are missing or not visible:** There are no intermediaries, leastways not with a clearly identified role. In some Regions, institutional bodies (research bodies or regional agency) oversee the organization of research demand and supply, thus supporting farmers'

innovation needs. Unfortunately, their activities suffer from lack of resources and political issues. Some regional offices in Brussels support local actors during the presentation of H2020 projects, but they don't provide any information about their outputs. Therefore, the dissemination of H2020 multi-actor projects results is entirely entrusted to the H2020 database, or to specific events (generally, the final conference).

The professional board of the agronomists, the National Rural Network (NRN), the National Contact Point for Horizon 2020 (NCP), professional associations, farmers' unions, etc., seem not to be involved in this issue, except for some sporadic events (in this regard, the National Rural Network organized a first event, in December 2017). A certain activity of dissemination and intermediation is informally undertaken by researchers and/or advisors which are involved in innovation projects, generally with the aim of accessing to the funds of the RDPs cooperation measure (support to OGs). As an example, in one of the cases under observation, an advisor has played an intermediary role trying to merge the innovation needs that arose from bottom up processes with the outputs of H2020 projects aimed at addressing similar problems. Anyway, this activity is exclusively addressed to the farms that they know and for the issues they deal with. Such a situation leads to an information asymmetry: relational capital is not equally shared and there's the risk that it could flow into preferential networks.

On the other hand, institutional intermediation, when it is present, seems aimed at supporting regional research institutes rather than to maximise the efficiency of the system.

**Need for different brokering levels:** The perception about the need for institutional activities aimed at connecting H2020 projects and EIP OGs differs according to the different actors.

Researchers feel that they have the right awareness to give adequate visibility to the research results at territorial level, thus involving local stakeholders in their possible implementation.

The Managing Authorities of RDPs expect a more incisive role from the National Rural Network and the National Contact Point. From this point of view, the National Rural Network (that manage the national EIP network) is expected to act like the EIP-AGRI Service Point, deploying a variety of instruments to support the Managing Authorities and OGs, in coordination with H2020 National Contact Point. Some of them also recognize that multiplier organisms, such as farmers' unions, farmers' associations or local advisors, can play an important role.

On the other hand, farmers suppose that cross-contamination between H2020 multi-actor projects and OGs should be carried out by the Regions or other local institutions (e.g. municipalities), through territorial help desks or the organization of brokerage events. This is a popular issue between small farms located in marginal areas, where even those farmers who are able to use ICT lack of reference points to share and turn out their innovative ideas. Besides, there's a certain expectation about project partners, particularly researchers, as it is a common thinking that they should funnel information and new knowledge into OGs and local networks. Indeed, it is known that interactions are channelled through personal relationships, since there isn't a clear explanation on how they should be developed.

**On field dissemination is a need:** Farmers need direct contacts to gain confidence in scientists as well as in the opportunities for development provided by the H2020 research.

The interviews put in evidence the need for peer-to-peer activities among farmers and OGs and for in-site dissemination of H2020 projects' results. In fact, opportunities for farm development need to be evident to the farmers and the direct contact with researchers seems to be one of the better dissemination tools.

**Budget constraints hinder networking activities:** OGs innovation projects should envisage an adequate amount of money for participating to exchange visits or to other activities that entail interaction among multi-actor projects. Unfortunately, these costs are often not eligible for funding or reduced as much as possible, despite the awareness about the positive impact that networking activities have for the development of innovations.

**The legal status of OGs can be a constrain to synergy:** H2020 programme fosters interactions by asking for the presence of OGs within the project partnership. However, some Regions asks for a legal status that hinders the development of synergies. In fact, GOs that do not have a VAT number are unable to sign a grant agreement and, consequently, to become partner of a H2020 project. In this case, only individual partners can participate in H2020.

**Inappropriateness of governance frameworks:** National/regional governance frameworks for agricultural innovation are not adequate to enable connections between H2020 multi-actor projects and OGs. In fact, the research and innovation strategies do not clearly recognize interactions between H2020 and rural development, nor a coordinate governance capable of connecting resources, actors and knowledge, as well as to identify roles and functions of each of them. Indeed, proofs of synergies are limited only to programs design and are not followed by concrete actions. Generally, the regions set up a coordination table or prepared a common programmatic document within the S3, but these have been formal exercises without any effective collaboration between the Directorate-General for Research and the Directorate-General for Agriculture and Rural Development. The strong fragmentation of government structures, which are used to operating each on their own area without a shared policy strategy, asks for an enhancement of the administrative capacity and the setting up of inter-directorate coordination groups.

**Lack of structures to enable knowledge flows:** No institutional body, both at national and regional level, is entrusted with the dissemination of multi-actor projects results towards national / local innovation stakeholders. In addition, monitoring systems of multi-actor projects (GO and H2020), which could foster dissemination and a better coordination, are struggling to get started. Particularly, the role of the National Contact Point for



Horizon 2020 is not clear: generally, only academic actors deal with it and there isn't any kind of cooperation with regional offices that are involved in agricultural innovations or with the NRN.

**Administrative capacity to enhance interactions:** The Regions could play a key role in improving interconnections and enhancing knowledge flows with H2020 in relation to the OGs setting up. Particularly, the Managing Authorities of RDPs can establish selection criteria, for applying to the cooperation measure, aimed at rewarding those OGs which are connected to H2020 multi-actor projects or that implement H2020 research outputs at territorial level. Currently, some regions attribute a higher score, during the selection phase, to OGs related to innovation projects that have been selected for financing under other funds. But this seems a formal exercise and not necessarily it implies a real interaction. To effectively carry out such delivery scheme, the Managing Authorities of RDPs should understand the usefulness and the opportunities of implementing H2020 outputs at local level, first. In addition, they should know and monitor H2020 programme and projects. In this regard, the organization of joint events, by the National Rural Network and the H2020 National Contact Point, aimed at increasing administrative capacity would be desirable.

Other initiatives aimed at enhancing interactions could rely on joint funded programmes of innovation, as well as on the recognition, for funding under RDPs, of the proposals that were successful in the Horizon 2020 evaluation process.

**Different rules and procedures:** Synergies at project level, by combining different financing sources for the same activity, would be desirable to achieve a critical mass. Unfortunately, this seems difficult to be realised, due to different scales, scope, different implementation structures, intervention logics or time frames of different programmes. In fact, Horizon 2020 is implemented under central management by the Commission whereas OGs are managed at Regional / Member State level. In addition, actors' commitment and project execution requirements are different. These elements lead to differences in implementation rules and procedures.

Other notable differences hinder the combined use of funding means. These include, among the others, eligibility rules, which are not always coherent with each other (excellence of research, for H2020, and cohesion

funds objectives, for OGs), and differences in state aid rules.

Temporal shift between H2020 projects and OGs selection represents a further constraint.

At regional level, the S3 provides a framework for interaction with Horizon 2020, through identifying priority areas and activities aimed at preparing regional stakeholders to participate in Horizon 2020, as well as initiatives to exploit and diffuse the R&I results. This should be helpful to enhance synergies, but evidences don't reveal progresses. Indeed, the novelty of OGs, whose implementation has proved to be quite complex, has not allow a careful reflection about the possible interactions with H2020 program. Certainly, this is an important issue for the next programming period.

## DISCUSSION

The EIP-AGRI has defined an overarching European political framework for research and innovation inspired by principles of co-creation and co-ownership of innovation within multi-actor processes, problem solving of practical problems, relationships between research and practice, cross-contamination and synergies between projects, knowledge, expertise and practices. Within this renewed political framework, interaction between research and innovation projects is crucial for the effective and efficient achievement of the objectives of speeding up innovation processes. However, the most adequate and timely implementation framework, which defines possible areas and methods of interaction, governance schemes and implementation tools, is not clear and rigorous.

If this is true, the current implementation of the EIP-AGRI does not seem to fully achieve the objectives of the flagship initiatives, which are aimed to achieving synergies and EU added value through basing themselves on existing policies and fostering cooperation among partners to exploit their potential for innovative actions. EIPs are challenge-driven and focus on societal benefits and rapid modernisation. They should provide favourable conditions for research and innovation partners to cooperate and achieve better and faster results compared to existing approaches.

Multi-actor approaches have strongly contributed to strengthen collaborations between research and farms, to develop farmer-driven research, to enhance innovative entrepreneurial skills, to improve local contexts dynamism. However, their implementation is quite far to be efficient, due to a lack of an adequate

design concerning the appropriate procedures and support actions that should foster the right interactions between programs, projects, actors and R&I contents. In the absence of an adequate framework that defines the right paths to bridge gaps and foster synergies and connections, multi-actor approaches are limited to the design level.

Under these circumstances, interactions are mainly channelled through personal relationships, thus revealing a failure in the AKIS model which seems not able to boost knowledge flows and, therefore, to develop in a more coherent system of innovation.

Looking ahead, the implementation framework of R&I funds will have to be well defined and more precise in tracing paths for interaction. In fact, the conceptual principle on the opportunity to realize interactions between H2020 and OGs has not been followed by adequate implementation guidelines focused on multi-level and intra-sectorial governance, implementation methods related to different forms of synergies, coordination and complementarity between multi-actor projects. Different levels of political and administrative capacity need clear recommendations and explanations on how interactions must be defined and implemented.

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