Farm Innovation through Rural Development Programmes 2014-2020: an evaluation model of the EIP

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Abstract: The European Rural Development Policy (RDP) 2014-2020 calls for building bridges between the research and the entrepreneurial worlds, through mainstreaming existing tacit knowledge and developing innovations to firms. In this view, the implementation of an "interactive model" for innovation, is a focal point of the concept of the European Innovation Partnership (EIP) which will be implemented through the operational groups (OGs). These latter will be acting entities applying for co-operation projects for innovation through involving different relevant actors, such as farmers, scientists, advisors, enterprises and others.

The novelty of the OGs action calls for the setting up of an adequate monitoring and evaluation strategy to be carried out by the evaluators of the RDPs 2014-2020 in view of capturing the interactive innovation model being applied by the OGs, through a qualitative and quantitative assessment of their implementation and performances as well and of their capacity to foster knowledge transfer and innovation across the rural systems. Accordingly, this study proposes an evaluation strategy which, by taking steps from the conceptual background outlined by Cristiano and Proietti and the European Evaluation Network for Rural Development, places great emphasis on exploring the OGs, the innovation brokerage and the farmers actions (behaviours, practices and capacities) as well as analysing farmer-system related determinants of innovation (policy, supply chains and advisory systems). The evaluation strategy is established upon a set of dimensions, questions and respective criteria and proposes an overall participatory approach to be implemented by the use of a mix of methods and a range of tools, which permit to capture the complexity of the interactive innovation, through investigating on a variety of relevant fields and perspective levels.

Keywords: evaluation, operational group, innovation brokerage, interactive innovation, RDP, EIP

Introduction

The prioritization of the knowledge transfer and innovation (KT&I) across the Rural Development Policy has a degree of novelty which calls for setting up an adequate monitoring and evaluation systems at Rural Development Programmes (RDP) 2014-2020 level. This should support the institutional learning, the policy design and the delivery arrangements, as well as the implementation of innovative actions, through providing useful evaluative knowledge on the innovation pathways and models being carrying out during the programming period 2014-2020.

In the perspective of the EC, the renewed RDPs should address the need for building bridges between different actors, through mainstreaming existing tacit knowledge and developing innovations to firms. In this view, the implementation of an "interactive model" for innovation (Hermans, Laurens Klerkx, & Roep, 2012; Dockès et al. 2011; Labarthe, 2008; Pant and Hambly-Odame, 2009; Röling, 2009; EU 2012; World Bank, 2006), is a focal point of the concept of the European Innovation Partnership (EIP), which will be applied through the operational groups (OGs). These latter will be acting entities applying for co-operation projects for innovation

through involving different relevant actors in knowledge generation and use (Knickel, Brunori, Rand, & Proost, 2009), such as farmers, scientists, advisors, enterprises and others.

GOs are expected to create knowledge by generating or enhancing learning processes through social interaction, under the assumption that knowledge is the results of a variety of dynamics that anyone can contribute to build and integrate with his own experience. In this view, building blocks for innovations come not only from science, but also from practice and intermediaries, in a bottom-up process (ENRD, 2013c).

Such dynamics shift the focus from knowledge transfer to new functions which are aimed at stimulating and facilitating the cooperation among different stakeholders, mediating knowledge, fostering dialogue and collective learning, negotiating and managing conflict (Klerkx and Lewis, 2009, Herman et al., 2012; Perèz et al., 2010; EU SCAR, 2012).

In this context, the evaluation should assess the effectiveness of the operational groups on boosting KT&I processes by the meaning of sharing knowledge and intermediating advisory methods and generating new insights and ideas, and identifying benchmarks for the purpose of policy, delivery design and implementation of the innovative actions.

The aim of this paper is to suggest a strategy for monitoring and evaluating the knowledge and innovation transfer in agriculture being implemented by the Operational Groups. The suggested evaluation strategy is based on a wide literature review related to the topic as well as the experiences of the authors in evaluating the pathways of innovation in Italian agriculture tracked by the implementation of measure 124 of Rural Development Programmes (RDPs) 2007-2013.

Measuring and evaluating the KT&I in rural systems: A literature review

The literature on monitoring and evaluating the KT&I interventions across agriculture reflects the evolution of the concept of innovation from the linear towards the systemic and interactive model, by addressing different fields of investigations and perspectives: a) the levels of analysis, such as the macro, meso and micro levels, along with the geographic/supply chain/sectoral and socioeconomic systems/farm levels analysis; b) the results of the innovation at agricultural system/farm level; c) the innovation transfer as process. Indeed, the traditional monitoring and evaluation approaches are shaped by quantitative meanings which mostly focus on "what" are the input and the pre and post analysis of the interventions (abovementioned points a) and b)).

More recently, these approaches have been recently complemented by qualitative and processes analyses, which focus on "how" and at "which conditions" the agricultural knowledge and innovation systems act, through playing the KT&I across the agriculture sector (abovementioned point c)).

The most of the traditional literature largely addresses macro level analyses targeted to measure the efforts of public and private sectors, in terms of financial and human resources committed and the outputs/outcomes/impacts of the innovative activities. This brought to the development of a number of internationally recognized input/output/result/impact indicators which have a good coverage of the statistics provided by the international agencies such as OECD, EUROSTAT, World Bank and, ultimately also by the EC-DG AGRI.

On the whole, the set of indicators in use covers the whole process of KT&I, through serving the monitoring as well as the evaluation and the benchmarking of the agricultural innovation systems: the creation/import of new knowledge; the adoption of new knowledge; the diffusion of knowledge/combination of existing knowledge; the enabling market and policy environment; the induction of innovation (OECD, 2013).

Some of the indicators are listed in table 1.

Table 1: List of the Indicators mostly used for knowledge transfer and innovation

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|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| Types of | Indicators |
| Indicators | |
| Inputs | Total public and private expenditure on agricultural R&D |
| | Number of staff in public and private agricultural R&D |
| | Number of staff in agricultural extension services |
| | Number of patents registered in the area of agricultural biotechnology |
| Outputs | ■ RDP expenditure in R&D as a % of the GDP |
| | • % of expenditure for the 3 measures: 'Knowledge transfer & information action' + |
| | 'advisory services' + 'cooperation' in relation to the total expenditure for the RDP ¹ |
| | ■ EIP operational groups ¹ |
| | Public expenditure on agricultural extension and schools |
| | Public and private cost of extension services |
| Outcome/Targets | ■ Total number of cooperation operations realized under the cooperation measure (groups, |
| | networks/clusters, pilot project,) |
| | • % of innovative projects out of all RDP supported projects Number and types of partners |
| | involved in cooperation projects |
| | Number of supported innovative actions implemented and disseminated by EIP operation- |
| | al groups |
| | • % of cooperation operations continuing after the RDP support including for the purpose of |
| | improved environmental management and performance |
| | Number and types of partners involved in cooperation projects |
| | Number of innovations created/adopted or introduced in firms |
| Impacts | ■ TFP growth or number of changes introduced in firms |
| | Contribution of technological change to TFP² |
| | Contribution of technical efficiency change to TFP² |
| | Distribution of farm productivity performance in the sector² |
| | Diversification in non-agricultural on-farm activities² |
| | Horizontal and vertical integration in the agri-food chain |
| | Linkage between farm support and productivity performance² |
| | ■ Entry and exit in the agricultural sector ² |
| | • Change in the rate of substitution of inputs ² |
| | ■ Reflection of R&D demand in public R&D agenda |

¹ The indicator was introduced by the EC for monitoring and evaluation purposes of the RDPs.

Nevertheless, some concerns mark these indicators such as the data availability, reliability and comparability over time and space. Moreover, they reflect mainly a top-down approach of the research and are enable to capture offsets by other innovative activities, learning-by-doing or reorganizational processes carried out at projects/farm level.

In the last years, increasing efforts have been made to measure innovation at farm level (OECD, 2013), address more precisely the investigation on behaviours, capabilities and skills, by profiling the role of entrepreneurs and other agricultural knowledge and innovation actors, such as the advisors, the researchers and the innovation centres. Largely, these analyses are conducted by specific innovation surveys, which include questions on innovation creation and adoption, or by adding questions on innovation in farm surveys (FADN). However, very few composite indicators or indices are being developed in order to synthesize the degree of innovation at farm or supply chain levels, through capturing the multidimensionality of the innovation. A case is represented by the European Innovation Scoreboard (CEC, 2006) which, however, is not specifically targeted to the agriculture sector.

² The indicator was provide by OECD Network for Farm Level Analysis.

With particular reference to the assessment of the agricultural knowledge and innovation systems, in the very recent years, there's an emergence of innovative approaches, methods and tools focused on the specific rural socio-economic factors which are believed as influential factors for the development of the innovation (The World Bank, 2008; 2012; OECD, 2012; 2013). Indeed, some endogenous factors such as the institutional (governance structure) and policy/delivery arrangements, the human capital of rural systems (capability, skills, empowerment) and the ones addressing specifically the spread of innovation, such as the social capital (trustiness, emulation, networking), are able to influence the development of innovation. Here, the evaluation has the purpose of measuring and comparing the context-specific and systemic capacities, capturing existing and potential changes and foresighting innovation processes for strategy and target setting, through process-oriented analyses of the KT&I at micro level (policy-makers, farms, advisors and other rural actors).

From the European Commission perspective, the issue of Monitoring and Evaluation the knowledge transfer and innovation in agriculture is quite new and still under definition. In deep, the information required for monitoring purposes is very minimal and focuses on the financial inputs (total public expenditure) and the outputs (number of EIP operational groups financed), whereas, as for evaluation, still, the EC has not provided a comprehensive and definitive Common Monitoring and Evaluation Framework (CMEF). However the EC suggests the use of a mix of methods (desk research, focus groups, interviews, case studies, network analysis, workshops)¹⁴, in view of assessing (1) how the RDP is improving the conditions for innovation, research and development in the rural areas; (2) the contribution of Priority 1, as a cross-cutting priority, to reinforce the rest of RDP priorities; (3) the contribution of innovative actions developed under the EIP Operational Groups across the EU2020 Strategy pipeline (European Evaluation Rural Development Network, 2013a; European Commission, 2013a).

With regards to the cooperation issue, very recently, Cristiano and Proietti (ESEE, 2013) investigated the pathways of innovation applied in agriculture in the context of the innovative projects financed by the Italian RDPs 2007-2013 (measure 124) and carried out by rural partnerships. The analysis framework was defined upon set of 4 evaluative themes (policy and delivery system, innovation drivers and accelerators, role of different actors, innovation at farm level and its effects) and respective criteria, against which those experiences were assessed.

Lately, a similar approach has been used also by the European Evaluation Rural Development Network (2013a; 2013a), still with the purpose of reviewing the experiences conducted under 124 measure.

A broader perspective is offered by Ricciardulli (2012) who, by using a mix of methods approach assessed the experiences of cooperation for innovation financed by measure 124 of the RDPs (Ricciardulli), through correlating the performance on innovation actions at partnerships', agricultural systems, and of RDP's levels.

In conclusion, the above-described literature review certainly offers an inspiring theoretical background to the monitoring and evaluation strategy to be developed for the assessment of the functioning and the performance of the OGs and the KT&I processes being implemented during the forthcoming programming period 2014-2020.

On this regards, particular efforts are requested in view of overcoming the lacks associated to the specific issue of the EIP and of the OGs, which calls for the introduction of a meso-perspective level of analysis with the purpose of fostering, among the others, double-loop learning processes of such innovation partnerships, and benchmarking innovation capacity. According to the European framework, these analyses should then match upstream and downstream the evaluation pro-

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¹⁴ Guidelines for the Evaluation plan (European Evaluation Rural Development Network, 2013a).

cesses of the KT&I at RDP level (macro) and at farm level (micro). Finally, the evaluation should address the different nature of the interventions shaping the RDPs (social, environmental, economic, agricultural, forestry) and the variability of the scenarios that can achieve change in rural areas.

An Evaluation Strategy for assessing the performance of the OGs in KT&I

Monitoring and evaluating the knowledge transfer and innovation being developed by the operational groups under the RDPs 2014-2020 calls for a specific Evaluation Strategy (ES), which should track the pathway for a comprehensive assessment of the EIP design and implementation. This should be based at least on the following evaluative dimensions: (a) the variability of the scenarios that can achieve innovation at rural systems and farm levels; (b) the OGs, the setting up and running of the partnership and of the innovative projects; (c) the progress and the effects of the KT&I being developed at rural systems and farm levels; (d) the actors' behaviours, practices, capacities put in place during the transfer of innovation; (e) the farmers' system related determinants, such as policy design and the delivery system of the EIP, geographical factors, supply chains and advisory systems.

Though, implementation of the ES helps identifying benchmarks for designing and managing technical, social (including organizational issues of rural systems, supply chains and farms) and process innovation, as well as building-up a comprehensive evaluative knowledge which, along with the implementation of the OGs, gives consistency to evidence-based policy making and adjustments.

In deep, the complexity and the dynamics of the KT&I actors call for taking into account several fields of investigation, such as: the needs for innovation, synergies between the measures and complementarities, shorter and longer-term socio-economic and environmental effects, unintended effects, the performance of diverse networking and co-operation structures and functioning, spill-over effects, the changes in the collaboration and networking patterns, roles of the different actors of the rural system, the delivery systems implemented at country level, the research, advisory and entrepreneurial learning processes bringing to changes in behaviours (individual and collective).

Moreover, the influential and conducive role of the public intervention in shaping how innovation actors interact has to be assessed (Anandajayasekeram et al., 2005; Cristiano and Proietti 2013; World Bank, 2006), together with the promotion of shared visions, and the use of a mix of policy instruments (measure packages, integrated supply chain projects and sub programmes) (Ascione et al. 2011).

The scope of the analyses is enlarged by the introduction of policy issues such as, among the others, the contribution of the innovation actions across the EU Strategy 2020 pipeline.

The proposed ES is intended to be developed across the ex-ante, the on-going evaluation and the ex-post evaluations being conducted by the independent evaluators along with the programming period 2014-2020. It is based on the investigation of key evaluative dimensions and questions, including the common ones proposed by the EC for the purpose of the assessment of KT&I, and a not exhaustive list of judgement criteria.

The investigations permitted to gather quantitative and qualitative information, through conducing desk research, mainly based on the monitoring data available at RDP level, the mid-term evaluations and projects documents, semi-structured interviews and focus groups involving the administrations and projects' actors.

Nevertheless, this ES lacks, at this moment, of covering the assessment of the European and National Rural development networks which will certainly play a key role in animating and facilitating the KT&I across the rural areas.

The ES, as a whole, will serve tracking the contribution chain of the KT&I in agriculture at cross-sectoral and trans-programme levels, including in the contract partnership (the EU Strategy 2020 pipeline).

In line with the interactive feature of the innovation being applied by the OGs, this ES supports an overall participatory evaluative approach, in view of addressing the issue of capacity building and empowerment of the policy-makers and agricultural actors, through favouring an on-going feed-back on evaluation findings and supporting their timing follow-ups as well as facilitating the dialogue and a common understanding.

As for the methods, the quantitative-type analyses, which consider the cause-effects chain of the interventions, appear unlikely to cover the broad range of investigations suggested and certainly would meet difficulties in handling the interactive feature of the innovation. Therefore, the use of a mix of methods seems to be the most likely to address the needs for evaluative knowledge. These would take into account both quantitative and qualitative analyses, which implies the implementation of a variety of techniques, such as desk research, surveys, workshops, interviews, metaplan, case studies and focus groups: expenditure analysis, network analysis, delivery analysis, Impact analysis, participatory pathway, outcome analysis, Logic-frame analysis, Trend Impact Analysis, Cost-effectiveness analysis, cost efficiency analysis, performance analysis clusterization, benchmarking, Problem analysis, Management performance analysis, Contribution analysis, Economic performance analysis.

Ex-Ante evaluation

In principle, the ex-ante evaluation is aimed to assess the current situation and the adequateness of the intervention logic of the RDP, in terms of knowledge and innovation strategy, operations and targets. This would help later on the evaluation of the effectiveness of the innovative actions conducted by the OGs.

In this view, the aspects to investigate refer to: context and swot analysis and needs assessment (AKIS' actors and functioning; Structural and socio-economic characteristics of farms; feasibility and marketability of the innovations; skills and capabilities of rural actors; Existing/emerging specific drivers of innovation; gaps in the AKIS; availability of advisory capacity; disconnections in the KT&I flows); policy and delivery arrangements (the access of farmers to information and knowledge; Farmers-led policy; degree of transversely of the innovative interventions to the other RDPs priorities; the matching between the cooperation for innovation interventions (article 35) and the other measures applying for KT&I (articles 14 and 15) within the 1st RD priority); use of policy instruments (measure packages, integrated supply chain projects, sub-programme); selection criteria of the proposals; administrative burdens; budgetary endowments; monitoring and evaluation arrangements; guidelines for project design and applications; organizational structures and functional provisions of the MA); delivery system (selection procedures, criteria, payment system); Tools for partners searching and exchange of information (i.e.: e-platforms, partners databases; social media).

Table 2: Evaluative dimension and questions for ex-ante evaluations

Context and swot analysis (ex-ante assessment on)

Do the context and swot analysis and the needs assessment address the issue of innovation across the rural systems?

To what extent the market needs (consumer behaviours/expectations) has been taken into account for the needs assessment on innovation?

To what extent the policy and rural context enable the effective functioning of the OGs?

What are the needs for innovation of rural system/farms/supply chains?

How is structured the local knowledge and innovation system?

What are the determinants of the KT&I processes in the rural system?

To what extent the AKIS is functioning and the actors are connected one to each other?

Policy approach

Is the policy approach/design consistency with the swot analysis and needs assessment on innovation?

*How and in how far does the RDP make a contribution towards innovation in agriculture and rural areas? How far the policy design takes into account the Market/System failures?

To what extent the policy design to innovation bring to farmers-led innovations and learning processes?

To what extent the policy design favors the access of farmers to information and knowledge?

To what extent the policy support the increase of skills and capabilities for innovation action?

To what extent the policy approach/design foster the knowledge transfer and innovation across the rural system?

Is the intervention logic of interventions addressing innovation consistency with the EU strategy 2020 pipeline?

To what extent the intervention logic of interventions addressing innovation permit a transversal action across the RDP priorities?

Delivery system design

Are the funding arrangements consistent with the policy objectives?

How far the budgetary endowment of OGs is consistent with the projects features?

How far the organizational arrangements of the MA are consistent with the policy design of the RDP and its implementing procedures?

How far the MA set the stage for partner searching?

On-Going Evaluation, during the programme implementation

As for the on-going evaluation, the evaluators should assess the RDPs' delivery systems on KT&I, the start-up of the OGs and their functioning, through favouring eventual ri-arrangements of the governance, the procedures and the interventions.

In this regards, the evaluators should assess particularly: the effectiveness and adequateness of the problem/opportunity analysis and the degree of relevance of innovation at farm level; the innovation brokerage (comprehensive knowledge on research and innovation, adequateness, effectiveness of connecting partners, capacity for project idea, on mainstreaming existing tacit knowledge); the quality of process design (feasibility and soundness of the project and of innovation, degree of sharing of problem/opportunity analysis and of developing a common project idea, partnership agreement on roles, functions, timing, investments, balance of private/public funding and types of resources); the supportiveness and efficiency of the delivery system; the adequateness of the project selection criteria to rank the most relevant projects according to their specific quality/correspondence to specific objectives and/or prioritize certain types of action; the cooperation, knowledge and innovation transfer; types of innovation (Incremental/Radical/Process, product, social); Development of Innovation to firm (Testing/Adaptation); Learning processes; Internal and external Networking of the partnership; Spreading of innovation across the rural local system.

In the context of the on-going evaluation of the KT&I, the conduction of systematic reviews of the operational groups could serve identifying benchmarks, trends, drivers and specific features of the innovation actions and of the partnerships.

Table 3: Evaluative dimension and questions for on-going evaluations

Problem analysis and Project design (relevance of innovation, brokerage, quality of process design)

To what extent the innovation project idea is established upon an effective farmer' needs assessment?

To what extent the problem/opportunity analysis is adequate?

To what extent the project idea is well-founded?

How far the project idea meets the Needs/Opportunities for innovation at farm level?

How the innovation broker performed?

To what extent the innovation broker promoted an interactive innovation?

How far the innovation broker overtook the difficulties to the setting up of the partnerships?

What were the determinants of an effective innovation brokerage?

How far the innovation broker fostered linkages between rural socio-economic systems?

To what extent the project idea meet the farmer's needs?

To what extent the partners were involved into the project design?

To what extent the whole partnership shared a common vision of the project idea?

To what extent the partnership matured the sense of commitment to the project development?

How far the rural relevance of the innovation to end-users is taken into account in the project design?

Project selection (delivery system and selection criteria)

How far the administrative arrangements for applications are suitable/supportive for the potential beneficiaries?

To what extent the MA provided information on the RDP's opportunities for contribution to all the potential actors of OGs?

To what extent the OG demonstrated project planning skills?

To what extent the partnership composition has been consistence with respects with the innovation process?

To what extent the selection committee has been adequate?

*In how far is the innovation principle translated into selection criteria for LAGs and LDSs?

Project implementation (Cooperation, K&I Transfer, Type of innovation, Adaptation, Learning process, Networking of the partnership, Spreading of innovation across the rural local system)

How far the interactive innovation model has been implemented by the OG

Which constraints the OG met in implementing effectively an interactive innovation?

What are the determinants of the interactive innovation?

How far the implementation of the innovation involved the whole partnership?

What type of innovation has been implemented?

To what extent the innovation has been tested/adapted to firm?

To what extent the innovation interaction boosted learning process and sharing of experiences?

To what extent the partners get a more acknowledgement on the respective roles for the innovation process?

To what extent the OG enhanced the mutual trustiness and collaboration among and out the partnership?

To what extent the partnership set linkages with Horizon2020 and other research or innovation programmes?

To what extent the OG contributed to spread innovation and knowledge across the rural system?

How far the innovation has been replicated by other partnerships or single firms?

Ex-Post Evaluation

Finally, the ex-post evaluation should help the assessment of the long-term effects of the KT&I processes implemented by the OGs: on farmers' attitudes, capacities and skills (adaptive/resilient/innovative behaviours, self-assessment, problem solving, management conflict, perspective analysis, result-oriented and cognitive knowledge, personal and collective sense of belonging to the community); on farmers' competitiveness/productivity/margins and product marketability; on socio-economic systems (R&D expenditure, better balance of private/public resources, local commitment and on domains to focus for future specialization, creation of stable connections and linkages between research and farm worlds; contribution to climate-change).

Table 4: Evaluative dimensions and questions for ex-post evaluations

Project and innovation effects at farm level (empowering, state of play of innovation and benefits)

To what extent the farmers were empowered by the participation to the OGs?

To what extent the farmers gained a major capacity to dialogue with the research world and up-take their own needs for innovation?

To what extent the farmers turned into more adaptive and/or innovative behaviours?

Effects on socio-economics systems

To what extent the innovation project increased the competitiveness/productivity of the farms?

To what extent the farmers turned into adaptive/resilient/innovative behaviours?

How far the innovation was successfully transformed into practice?

*To what extent fostering the KT&I achieved developing knowledge base in rural areas?

*To what extent fostering the KT&I strengthen the links between agriculture, food production and forestry and research and innovation and improved environmental management and performance?

*To what extent the KT&I promoted a resource efficient and competitive agricultural and forestry sector working in harmony with the essential natural resources on which it depends?

*To what extent the KT&I built bridges between research and farmers, forest managers, rural communities, businesses, NGOs and advisory services?

*To what extent the KT&I helped supply of food, feed and biomaterials, the preservation of the environment and adaptation to and mitigation of climate change?

How far the OG contributed to increase the capacities of rural actors to respond to climate change challenges?

*To what extent the innovation applied by the OG contributed to the smart specialization strategy?

To what extent the OG fostered the research turned into a demand-driven approach?

To what extent the OG fostered individual and collective learning loops?

Discussion

The proposed ES covers the main issues of KT&I assessment:

The "HOW" analysis aims at assessing the extent to which the context/environment enables the OGs to provide KT&I, at what conditions the OGs are well-functioning and by which mechanisms and actors the innovation is implemented at farm level and across the supply chains.

The "EFFECTS" analysis aims at assessing the medium-long term outcomes/effects of the innovation actions on rural systems, farms and value chains.

The "CONTRIBUTION" analysis aims at assessing the contribution of the EIP to the other priorities of the RDPs and the reverse, and the up-streaming the Europe 2020 Strategy pipeline, through the meanings of its effects.

The novelty of the KT&I processes and the approach to their assessment certainly lay new challenges:

^{*}Common Evaluative questions proposed by the EC in the contexts of the Guidelines for the Ex Ante evaluation and for the Evaluation plan of the RDPs 2014-2020.

- the very early set-up of adequate M&E systems, which should focus on qualitative assessment to be conducted during the whole programming period. This requires the redesign of such systems and the definition/adaptation of tools (indicators), participatory methods and techniques, which are not still commonly in use in the rural development and entail new investments;
- particularly on the qualitative analyses, there's a need for developing a major understanding, by the MAs of the RDP, on their usefulness to help building bridges between the research and the entrepreneurial world and spreading a wider culture of innovation in rural areas;
- however, on the participatory methods and techniques, there's a call for the development of a major competency of the evaluators, who are certainly more keen to quantitative analysis, as a consequence of a pre-ordinated EU common monitoring and evaluation framework.

Finally, this ES needs to be applied at different perspective levels (European, countries, operational groups, networks, clusters, projects). This means that its success relies on a substantial change in the mindset of all the actors being involved into the GOs, since the selection procedures, and their commitment to the evaluation activities of the RDPs. As it is, this ES could effectively promote the development of a self-commitment to an effective KT&I, which is relevant for farmers in the short run and worthwhile in the long-run (in terms of developing double-loop learning processes). The challenge is certainly great for the farmers, but there's a major call for the research and innovation centers and for the advisors, to appoint self-evaluation exercises, which nowadays are far to be conducted at regular basis, in view of foster and serve interactive innovations and reconverting their activities to demand-driven processes and activities.

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