



# **GUIDELINES**

EVALUATION OF INNOVATION IN RURAL DEVELOPMENT PROGRAMMES 2014-2020

DECEMBER 2017

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# Recommended citation:

EUROPEAN COMMISSION – Directorate-General for Agriculture and Rural Development – Unit C.4 (2017): Guidelines. Evaluation of innovation in rural development programmes 2014-2020.

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The Evaluation Helpdesk is responsible for the evaluation function within the European Network for Rural Development (ENRD) by providing guidance on the evaluation of RDPs and policies falling under the remit and guidance of DG AGRI's Unit C.4 'Monitoring and evaluation' of the European Commission (EC). In order to improve the evaluation of EU rural development policy the Evaluation Helpdesk supports all evaluation stakeholders, in particular DG AGRI, national authorities, RDP managing authorities and evaluators, through the development and dissemination of appropriate methodologies and tools; the collection and exchange of good practices; capacity building, and communicating with network members on evaluation related topics. Additional information about the activities of European Evaluation Helpdesk for Rural Development is available on the Internet through the Europa server (http://enrd.ec.europa.eu).

# **G**UIDELINES

EVALUATION OF INNOVATION IN RURAL DEVELOPMENT PROGRAMMES 2014-2020

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Guidelines: Evaluation of Innovation in Rural Development Programmes

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Guidelines: Evaluation of Innovation in Rural Development Programmes

### **ACKNOWLEDGEMENTS**

The guidelines have been drafted by a team of experts from the European Evaluation Helpdesk for Rural Development including Boru Douthwaite, Marili Parissaki, Andreas Resch, Jela Tvrdonova, Valérie Dumont, Matteo Metta, Myles Stiffler, Hannes Wimmer.

Various experts have acted as peer reviewers (Anna Maria Augustyn, Simona Cristiano, Anikó Juhász, Bill Slee) or contributed with their knowledge on evaluation practices (Bart Van Herck, Dimitris Skuras).

Representatives of DG Agriculture and Rural Development have ensured the coherence of the guidelines with the EU's policy framework.

Representatives from the Member States have commented on the draft versions of the guidelines during the Sounding Board meeting on 22 March 2017 and during the 11<sup>th</sup> meeting of the Expert Group on Monitoring and Evaluating the CAP on 10 May 2017.

The ENRD Contact Point and EIP Service Point were also invited to comment on the guidelines.

# INTRODUCTION

Why evaluate innovation in RDPs?

Innovation is one of the three cross-cutting rural policy objectives<sup>1</sup> and can be addressed with the interventions implemented under the measures and focus areas (FAs) in the rural development programmes (RDPs) 2014-2020<sup>2</sup>.

The achievements of this cross-cutting objective are the subject of the evaluation of innovation<sup>3</sup>. In this context, the contributions of innovations supported by the European Agricultural Fund for Rural Development (EAFRD) towards the RDP and EU policy objectives are assessed in order to answer the innovation-related common evaluation questions.

There are various reasons why innovation should be evaluated:

- To provide accountability of rural development interventions and demonstrate how they
  have fostered innovation in rural areas and contributed to programme results and impacts to rural
  policy and the EU 2020 strategy objectives.
- **To better target the EAFRD support to innovation** by selecting the most relevant programme beneficiaries and territories, and most suitable and eligible actions.
- To enhance common learning between stakeholders on how to best support and implement innovative projects by learning from past experiences and understanding conditions for success.

Why are these guidelines needed?

The evaluation of innovation has gained in importance in the programming period 2014-2020, due to the prominence that the topic has achieved on the general policy agenda. Rural development programmes can support the innovation processes, generate various tangible and intangible outcomes in the programme area and in the innovation system as a whole.

Capturing these effects brings several methodological challenges for the evaluation: How to identify the evaluation subject? Which effects contributing to the innovation processes in rural areas can be attributed to the RDP? How can contributions of innovations generated by the EAFRD support to the wider RDP results and impacts be assessed? How can the achievements of regional/national/EU policy objectives be measured?

The main objective of the document is to complement other guidelines and offer advice to RDP evaluation stakeholders on how to carry out the evaluation activities for answering the common evaluation questions related to innovation. Since the RDP's effects on innovation in rural areas can be expected to take place, most likely, in the long-term, the guidelines focus in particular on those evaluation related activities, which will be reported in the Annual Implementation Report (AIR) submitted in 2019 and in the ex post evaluation.

The Evaluation Helpdesk's 4<sup>th</sup> Thematic Working Group "Evaluation of innovation in RDPs 2014-2020" aimed to (1) examine and address the major challenges in the evaluation of innovation; (2) review existing evaluation experiences in the field; (3) identify and design practical solutions for the evaluation of innovation inside of the RDP; (4) develop non-binding guidelines for answering the innovation-

<sup>3</sup> Art. 68 of Regulation (EU) No 1305/2013

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<sup>&</sup>lt;sup>1</sup>The other two cross-cutting objectives are environment and climate change mitigation and adaptation.

<sup>&</sup>lt;sup>2</sup> Art. 8(1)(c)(v) of Regulation (EU) No 1305/2013 and Annex I, Part I.5(c) of Regulation (EU) no 808/2014

**related common evaluation questions** by complementing the existing guidance and the Common Monitoring and Evaluation System (CMES).

#### Who are the target groups for these guidelines?

The guidelines, *Evaluation of innovation in RDPs 2014-2020*, are drafted for different groups of rural development stakeholders:

**Managing Authorities** will find information about the evaluation of innovation at the RDP level: the concept, the policy framework and the focus of the innovation-related evaluation questions. Practical guidance is provided to show how to prepare, manage and coordinate the evaluation and how to assess the contributions of innovations towards the RDP's objectives.

**Evaluation experts** will find solutions for various challenges linked to the evaluation of innovation (e.g. how to screen the RDP's innovation potential when defining the RDP's innovation intervention logic, how to analyse the contributions of innovations to the achievements of the RDP's objectives and the RDP's results and impacts). Evaluators will also find support on how to select the best evaluation approach and collect the evidence to answer evaluation questions.

Other stakeholders may also use the guidelines as a reference document: European Commission (EC) officials (for questions arising regarding the evaluation of innovation); European Innovation Partnership (EIP) operational groups (OG) (as background information when designing projects and understanding their innovation potential); members of local action groups (LAGs) (when evaluating/self-assessing innovative features in their Community-led local development (CLLD) strategies and their effects on the innovation in rural areas); national rural networks (NRNs) when preparing and supporting LAGs and EIP Operational Groups.

#### How are the guidelines structured?

The guidelines are composed of three parts:

Chapter 1 explains the innovation system in rural areas and the concept of the evaluation of innovation in rural development. The concept introduces the EU and RDP policy framework and how they interrelate with each other, as well as the overview of the common evaluation elements. Chapter 1.3 also discusses the challenges linked to the evaluation of innovation in rural development policy.

Chapter 2 informs Managing Authorities about specificities linked to managing the evaluation of innovation and reporting requirements. Chapter 2.2 explains the approaches to answering the innovation-related evaluation questions and provides specific guidance for each of the common evaluation questions: numbers 1, 2, 21, 23 and 30 concerning those aspects which relate to innovation. This includes the description of methods adequate for the evaluation of innovation.

Chapter 3 (Annexes) includes the glossary and the steps for identifying the RDP innovation potential.

### 1. CONCEPTUAL FRAMEWORK

#### 1.1 Innovation and Rural Development

How can we understand innovation?

In the context of EU rural development, a rather broad understanding of innovation has been taken: The described broad understanding of innovation makes it adaptable to different socioeconomic and environmental situations across the EU. It relates to the RDP architecture and its ability to engage with the existing context and to ensure new solutions for rural challenges and needs. Such solutions are not necessarily radical and major, but may involve smaller changes that sometimes prepare the ground for bigger things.

How are RDP interventions contributing to innovation?

"Innovation is often described as a new idea that proves successful in practice. Innovation may be technological, but also non-technological, organisational or social. Innovation may be based on new but also on traditional practices in a new geographical or environmental context. The new idea can be a new product, practice, service, production process or a new way of organising things, etc. Such a new idea turns into an innovation only if it is widely adopted and proves its usefulness in practice".4

Rural development policy is designed to foster innovation (technological, institutional and social) as an enabling factor for achieving the rural development objectives and priorities, and to address rural challenges. The RDP measures/sub-measures and beneficiaries (e.g. EIP operational groups, LAGs, farmers, etc.) produce outputs, results and impacts that contribute to the achievement of the RDP's objectives, influencing and influenced by the innovation system in which it is part of.

The innovation system at local, regional, national or supra-national level involves a rather heterogeneous group of innovation actors, including rural entrepreneurs (e.g. farmers, foresters) input and tourism industries, processors, traders, regulators, researchers, advisory services, government and civil society organisations. Interactive experimental learning among these actors plays a vital role in the innovation system as they put new ideas (new to the system) to use. The flow of technology and information among actors is key to the innovation process inside of the innovation system.

Apart from rural development policy, the **innovation system can be affected by many other factors** present in rural areas, such as, research, education, fiscal policies, and other programmes funded by EU Funds (Horizon 2020, Operational programmes financed by ESI Funds) which support innovative actions and processes. Market demand for innovations can also play a defining role.

For an innovation to become mainstream, not only depends on the strength of a creative idea, but also depends on the market possibilities, the willingness of the sector to adopt it, cost effectiveness, knowledge and perceptions, accidental external factors, etc. It is impossible to predict how these factors interact to turn a new idea into an innovation. Therefore, one can only determine afterwards whether a new idea has led to a real innovation.

<sup>&</sup>lt;sup>4</sup> Guidelines on programming for innovation and the implementation of the EIP for agricultural productivity and sustainability <a href="https://ec.europa.eu/eip/agriculture/sites/agri-eip/files/pb\_guidelines\_eip\_implementation\_2014\_en.pdf">https://ec.europa.eu/eip/agriculture/sites/agri-eip/files/pb\_guidelines\_eip\_implementation\_2014\_en.pdf</a>

### The innovation process involves three pathways:

- Pathway 1: involves the capturing and development of new ideas (i.e. new views, approaches, products, practices, services, production processes/technology, new ways of organising or new forms of cooperation and learning);
- Pathway 2: concerns the capacity of individuals and of the knowledge and innovation system itself to experiment, self-organise and make use of new ideas and approaches;
- Pathway 3: requires the enabling of the institutional and policy environment for emerging innovative processes.

The three pathways should not be seen as isolated instances, but rather overlapping and mutually interlinked entry points to innovation (Figure 1).

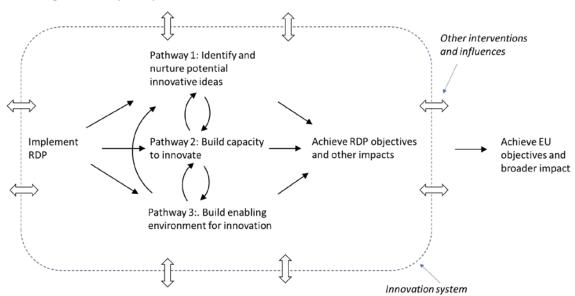


Figure 1. Simplified picture of how RDPs foster innovation

Source: European Evaluation Helpdesk for Rural Development, 2017

RDP measures/sub-measures and their combination can contribute to one, two or all three pathways to a different extent depending on the RDP's specific approach to support innovation (see <a href="Section1.2.1">Section 1.2.1</a>).

# Examples of possible RDP support to Pathway 1

- The development, testing and promotion of a machine to mechanically control weed infestations on agricultural land (e.g. operations carried out under Art. 17 and 35 of Regulation (EU) No 1305/2013);
- Testing and provision of new types of services in rural areas (e.g. operations carried out under Art. 20 and 35 of Regulation (EU) No 1305/2013);
- Introducing a new way of organising meetings, conferences, and trainings (e.g. using new facilitation techniques, roundtable conferences) (e.g. operations carried out under Art. 14 of Regulation (EU) No 1305/2013).

The first pathway can be described as the ability to identify and nurture promising ideas that may lead to innovation of whatever type (technological, non-technological, social, organisational, etc.). Such a new idea takes amplitude to become a real innovation, which ideally responds to a specific need or provides an opportunity that can be applied by many. The two main ways to nurture ideas to build innovation processes are: (1) an individual approach (capturing and nurturing a man/woman with an idea); (2) through different stakeholders working in groups to discover new ideas to be nurtured (bringing the best partners together to form a group, which combines the needed complementary competences to build an innovation project).

In order to be innovative, the idea, or at least some aspects of it, must be new to the environment or place in question, and offer some plausible promise of being useful (i.e. helping one or more of the stakeholders do something different, better or cheaper, responding to a need or developing an opportunity).

The second pathway is about building the capacity to innovate. The pathway is, in some circumstances, a result of carrying out the first pathway. The RDP can facilitate the process of identifying development challenges and opportunities to bring together interested and relevant innovation actors (e.g. via EIP operational groups<sup>5</sup> which test innovative practices through cooperation between relevant actors with complementary knowledge ((e.g. farmers, businesses, advisory services, researchers and others)) to achieve the objectives of an innovative project). This helps to bridge the gap between science and practice by building the necessary skills and knowledge. Synergies created through multi-actor projects funded under the EU research and innovation policy Horizon 2020 can also provide benefits<sup>6</sup> <sup>7</sup>. Operational groups can trigger socio-technical niches. A socio-technical niche is a protected space that allows people to learn about and experiment with novel technology and/or institutions and/or new ways of doing things. When properly constructed and linked, niches can act as building blocks for broader societal changes towards sustainable development<sup>8</sup>.



#### **Examples of possible RDP support to Pathway 2**

The following key skills and qualities of innovation actors<sup>9</sup> can be supported by the RDP and influence the "capacity to innovate" operations:

- Technical and field-specific knowledge and skills required to make new ideas work in practice, including the ability to identify and choose between options (e.g. operations carried out under Art. 14, 15 and 35 of Regulation (EU) No 1305/2013);
- Organisational and soft skills required to facilitate and broker<sup>10</sup> innovation processes, including the ability to build links
  and networks between stakeholders, the ability to go through iterative visioning, planning and reflective learning cycles,
  and the ability to identify key system dynamics and challenges (e.g. operations carried out under Art. 35 of Regulation
  (EU) No 1305/2013);
- Enhanced capacity for effective collective action<sup>11</sup> (e.g. to organise the demonstration and information activities in a collaborative way with the aim of transferring experiences and knowledge between actors, or for cooperation among supply chain actors for the provision of biomass for food and energy production, etc.) operations carried out under Art. 14, 15 and 35 of Regulation (EU) No 1305/2013;
- RDP interventions may build capacity to innovate by providing knowledge transfer opportunities (e.g. services, training and mentoring) operations carried out under Art. 15 of Regulation (EU) No 1305/2013.

<sup>&</sup>lt;sup>5</sup> Guidelines on programming for innovation and the implementation of the EIP for agricultural productivity and sustainability <a href="https://ec.europa.eu/eip/agriculture/sites/agri-eip/files/pb\_quidelines\_eip\_implementation\_2014\_en.pdf">https://ec.europa.eu/eip/agriculture/sites/agri-eip/files/pb\_quidelines\_eip\_implementation\_2014\_en.pdf</a>
<sup>6</sup> Horizon 2020 strongly supports the concept of multi-actor approach for research, which makes farmers, advisors and other

b Horizon 2020 strongly supports the concept of multi-actor approach for research, which makes farmers, advisors and other practitioners in partnerships with researchers co-create solutions or develop innovative opportunities with a view to focus the research and innovations on the needs of agriculture practice, see H2020 WP 2018-2020 page 8-9 for the requirements for multi-actor projects (<a href="http://ec.europa.eu/research/participants/data/ref/h2020/wp/2018-2020/main/h2020-wp1820-food\_en.pdf">http://ec.europa.eu/research/participants/data/ref/h2020/wp/2018-2020/main/h2020-wp1820-food\_en.pdf</a>) and the EIP brochure on multi-actor approach (<a href="https://ec.europa.eu/eip/agriculture/sites/agri-eip/files/eip-agri brochure multi-actor projects 2017\_en\_web.pdf">https://ec.europa.eu/eip/agriculture/sites/agri-eip/files/eip-agri brochure multi-actor projects 2017\_en\_web.pdf</a>

<sup>&</sup>lt;sup>7</sup> Reports from the Strategic Working Group (SWG) Standing Committee for Agricultural Research (SCAR) on Agriculture knowledge and innovation systems (AKIS):

<sup>-</sup> Agricultural Knowledge and Innovation Systems Towards 2020 – an orientation paper on linking innovation and research <a href="http://www.gppq.fct.pt/h2020/">http://www.gppq.fct.pt/h2020/</a> docs/brochuras/bioeco/agricultural-knowledge-innovation-systems-towards-2020 en.pdf (on the building of the multi-actor approach)

<sup>-</sup> Agricultural Knowledge and Innovation Systems towards the Future - A Foresight paper, <a href="https://ec.europa.eu/research/scar/pdf/akis-3">https://ec.europa.eu/research/scar/pdf/akis-3</a> end report.pdf#view=fit&pagemode=none

<sup>&</sup>lt;sup>8</sup> Schot and Geels (2008) for more on socio-technical niches.

<sup>&</sup>lt;sup>9</sup> ENRD (2013). Towards Successful Innovation Brokerage: Insights for the 2007-2013 Rural Development Programmes and Leeuwis C, Schut M, Waters-Bayer A, Mur R, Atta-Krah K and Douthwaite B. 2014. Capacity to innovate from a system CGIAR research program perspective. Penang, Malaysia: CGIAR Research Program on Aquatic Agricultural Systems. Program Brief: AAS-2014-29.

<sup>&</sup>lt;sup>10</sup> ENRD (2013) identifies innovation brokerage as a key system capacity, namely, the presence (and activity) of those actors who are committed to change, and which are creative, proactive, motivated, impartial, transparent and sensitive to the context of innovation.

<sup>&</sup>lt;sup>11</sup> Douthwaite and Hoffecker (forthcoming) and Nemes and Augustyn (2017).

The third pathway concerns changing the framing conditions and environment that influences the innovation systems. This includes improving various enabling conditions 12, such as:

- institutional (e.g. provision of mandates, norms, the policy/legislative environment which supports innovations),
- procedural (e.g. sources of flexible funds to address stakeholders needs for innovations),
- professional (e.g. access to trainings to provide necessary skills and knowledge and means to promote innovations),
- organisational (e.g. possibility to interact with other partners willing to seek innovative solutions),
- operational (e.g. enabling transnational or cross-sector innovation),
- technical (e.g. supporting new techniques and technologies applicable in rural economic sectors and in rural infrastructure).

The RDP can support the third pathway by combining different measures/sub-measures, (e.g. investment measures provide the enabling environment for any type of technical and technological innovation, quality and marketing measures support institutional and procedural conditions, knowledge transfer and advisory measures offer a professional enabling environment).

The potential for several self-reinforcing feedback loops can be further seen in Figure 1. For example:

- The process of technological and/or institutional innovation builds system capacity to innovate that directly feeds back to speed up the rate and quality of innovation;
- RDP interventions in support of innovation-friendly policy (pathway 3) leads to faster rates of innovation that leads to greater capacity to innovate.

Increasing the capacity to innovate helps the innovation actors to make and use linkages to influence the enabling institutional or policy environment in favour of the innovations that the RDP is championing.

# Examples of possible RDP support to Pathway 3

- An RDP that prioritises information and training actions (Art. 14 of Regulation (EU) No 1305/2013) and advisory services (Art. 15 of Regulation (EU) No 1305/2013) based on those innovative practices, which are developed in their OGs (Art. 35 of Regulation (EU) No 1305/2013) or on those innovative practices developed by OGs in other regions or countries (NRN activities, technical assistance).
- An RDP that improves rural internet access will help local businesses and farmers to have access to information and markets, thus increasing their ability and motivation to innovate (e.g. operations carried out under Art. 20 of Regulation (EU) No 1305/2013);
- An RDP developing innovative tillage equipment to incorporate crop residues by an OG may encourage innovative investments and tighter enforcement of laws to ban the burning of crop residues (e.g. operations carried out under Art. 17 of Regulation (EU) No 1305/2013);
- An RDP measure supporting the establishment of short food supply chains or producer cooperatives can increase the linkages and cooperation among consumers and producers to create a more innovative food system<sup>13</sup> (e.g. operations carried out under Art. 16, 17 and 35 of Regulation (EU) No 1305/2013).

 <sup>12</sup> ENRD (2013). Towards Successful Innovation Brokerage: Insights for the 2007-2013 Rural Development Programmes
 13 EIP AGRI (2016) Workshop on Cities and Food: Connecting Consumers and Producers. Available on:
 https://ec.europa.eu/eip/agriculture/sites/agri-eip/files/eip-agri\_factsheet\_cities\_and\_food\_en\_web.pdf

Self-reinforcing loops are important because they provide the prospect for leverage<sup>14</sup>, that is, for relatively small RDP interventions to catalyse and support impacts at a greater scale (e.g. an energy efficient innovative farm practice developed by an RDP innovation project diffuses as positive feedback from new adopters, which then spreads and influences others to adopt the same practices, leading to significant energy saving impacts in the region). Additionally, innovation projects may lead to improved RDP measures. For instance, an innovation project may test the feasibility and cost-efficiency of a future agri-environment-climate measure (AECM).

#### How does the RDP interact with the broader innovation system?

The RDP produces two types of outcomes that are linked to innovation:

- **Enabling outcomes** related to the three pathways (e.g. changes in the rate and quality of emerging innovative ideas; the capacity to innovate; and the enabling environment).
- **Innovation outcomes** resulting from the enabling outcomes (e.g. new practices, increased income, adoption of more sustainable farming practices).

Both types of outcomes contribute to the RDP's objectives and can be assessed through the appropriate indicators. If and how they affect the existing innovation system depends on how the RDP beneficiaries interpret and make sense of what the programme offers<sup>15</sup>. Their reaction is also influenced by history and on-going processes other than the RDP, which stimulate innovations:

- research activities on new technologies and processes,
- extension and education schemes on the promotion of innovation,
- fiscal measures, credit guarantees, innovative procurement,
- Horizon 2020 and other ESI Funds´ national/regional programmes, which intervene in the same innovation approach as the RDP,
- market demand.

Equally, RDP operations will influence how other on-going processes and interventions are interpreted and used and will also be influenced by them.

RDPs are not implemented in a vacuum, but act in a complex innovation system in the given socioeconomic context. The baseline position of the RDP depends on the existing innovation context (i.e. innovation actors and interactions amongst them, the existing enabling environment, market demand, other interventions).

The aim of any evaluation will be to capture the baseline position and attribute any observed changes to the implementation of the RDP measures and sub-measures.

8

<sup>&</sup>lt;sup>14</sup> Senge, P. M., & Sterman, J. D. (1992). Systems thinking and organisational learning: Acting locally and thinking globally in the organisation of the future. European journal of operational research, 59(1), 137-150.

<sup>&</sup>lt;sup>15</sup> Pawson, R. (2013). The science of evaluation: A realist manifesto. London, UK: Sage Publications

# 1.2 The EU policy framework

### 1.2.1 The policy framework for innovation in EU and Rural Development Policy

There are two EU funding instruments specifically supporting innovation in agriculture and forestry. One is rural development policy, which is one of the two common agriculture policy (CAP) Pillars. The other is Horizon 2020<sup>16</sup>, the EU's framework programme for research and innovation, which implements the "Innovation Union" flagship initiative <sup>17</sup>.

The rural development policy is designed to work in synergy with Horizon 2020 to achieve the innovation objectives of the EU, notably, the smart growth objectives. Among the EU's headline targets for smart growth is to increase combined public and private investment in R&D to 3% of the EU's GDP, as well as better conditions for R&D and Innovation<sup>18</sup>.

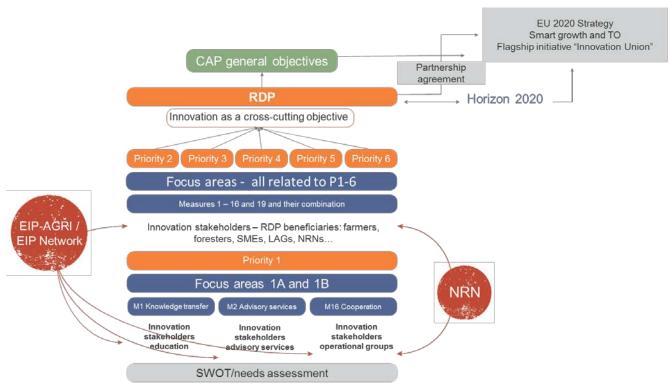


Figure 2. The policy framework for innovation in EU and Rural Development Policy

Source: European Evaluation Helpdesk for Rural Development, 2017

The common agricultural policy plays an important role in contributing to smart growth through innovation. The delivery of the three CAP objectives requires creating, sharing and implementing new knowledge, new technologies, new products and new ways to organise, learn or cooperate.

The architecture of rural development policy in 2014-2020 stresses the importance of innovation in the phases of programme design and implementation. <sup>19</sup> Innovation in rural development can relate to a diverse array of areas including: on-farm development, food chain organisation and risk

<sup>&</sup>lt;sup>16</sup> Horizon2020 is the biggest EU research and innovation programme aiming to couple research and innovation in all sectors, including agriculture and forestry, as a mean to achieve smart, sustainable and inclusive growth and jobs. Many other EU policies that address innovation and skills development can also contribute to agricultural research and innovation (Cohesion Policy, COSME, ERASMUS, LIFE+).

<sup>&</sup>lt;sup>17</sup> It aims to address major societal challenges such as climate change and resource efficiency and strengthen links in the innovation chain (<a href="http://ec.europa.eu/europe2020/europe-2020-in-a-nutshell/flagship-initiatives/index\_en.htm">http://ec.europa.eu/europe2020/europe-2020-in-a-nutshell/flagship-initiatives/index\_en.htm</a>)

http://ec.europa.eu/europe2020/europe-2020-in-a-nutshell/targets/index\_en.htm

<sup>&</sup>lt;sup>19</sup> Art. 5 of Regulation (EU) No 1305/2013

management, preserving and enhancing ecosystems, promoting social inclusion, poverty reduction, economic development in rural areas, etc.

How is innovation rooted in rural development programmes?

A description of the RDP's "approach towards innovation with a view to achieve the Union priorities for rural development" is included in the RDP strategy<sup>20</sup>. This description also includes the EIP for agricultural productivity and sustainability. Each strategy addresses, at the level of each Union priority, the specific needs concerning innovation as identified in the SWOT and needs assessment<sup>21</sup>. Moreover, all Union priorities shall contribute to the cross-cutting objective regarding innovation<sup>22</sup>.

In addition to being a cross-cutting objective, innovation is also considered in RDPs as part of two FAs of the cross-cutting Union Priority 1 "Fostering knowledge transfer and innovation in agriculture, forestry, and rural areas":

- FA 1A: fostering innovation, cooperation and the development of the knowledge base in rural areas,
- FA 1B: strengthening the links between agriculture, food production and forestry and research and innovation including for the purpose of improved environmental management and performance.

RDPs have considerable flexibility in using and combing measures to address the specific territorial and innovation needs and their ability to achieve synergies. The measures can be programmed under various priorities and FAs with a view to maximise their contributions to the relevant objectives. Some RDP measures can even have more direct effects on innovation, namely under FA 1A and 1B:

- 1. M1 Knowledge transfer and information actions
- 2. M2 Advisory services
- 3. M16 Cooperation (supports the establishment and operation of EIP-AGRI operational groups).
- 4. M19 LEADER/CLLD which promotes innovation as one of the LEADER principles and encourages small scale innovative actions in all aspects of rural life (economic, social and environmental)

Innovation-promoting measures may also be programmed under other FAs. M16, for instance, can be linked to most FAs and rural development priorities. It is the main rural development measure to support the European Innovation Partnership Agricultural Productivity and Sustainability (EIP-AGRI).

<sup>22</sup> Art. 5 of Regulation 1305/2013

<sup>&</sup>lt;sup>20</sup> Art. 8.1 (c)(v) of Regulation 1305/2013

<sup>&</sup>lt;sup>21</sup> Art. 8.1(b) of Regulation 1305/2013

The EIP-AGRI is part of the Europe 2020 Strategy to speed up EU innovation, fostering a competitive and sustainable agriculture and forestry sector that "achieves more from less". The EIP-AGRI contributes to ensuring a steady supply of food, feed and biomaterials, working in harmony with the essential natural resources on which farming depends. The EIP-AGRI brings together innovation actors (farmers, advisors, researchers, businesses, NGOs, etc.) at the EU level and within the rural development programmes in the form of OGs. Such innovations may be technological, but also non-technological, organisational or social. Innovation may be based on new but also on traditional practices in a new geographical or environmental context. EIP OGs are project-based and tackle a certain (practical) problem or opportunity, which may lead to an innovation and contribute to achieving the programme's objectives. Each OG is composed of those key actors (e.g. farmers, advisors, researchers, businesses, NGOs) that are in the best position to realise the project's goals, to share the implementation experiences and to disseminate the outcomes broadly. The OG's approach makes the best use of different types of knowledge (practical, scientific, technical, organisational, etc) in an interactive way. A practical approach to support this is "innovation brokering". The regulation offers 4 possibilities to fund innovation brokering <sup>23</sup>. Innovation brokering can play an important role in discovering innovative ideas, facilitating the start-up of OGs, notably by acting as a go-between, connecting innovation actors (farmers, researchers, advisors, NGO's, etc.) in interactive innovation projects. An "innovation broker" aims to discover bottom-up initiatives, helps to refine innovative ideas, and provides support for finding partners and funding. The broker's main task is to help prepare a solid innovative project proposal.

Other measures<sup>24</sup> which specifically mention innovation are for example:

- 1. Setting-up of producer groups and organisations, where activities include *inter alia* the "organisation and facilitation of the innovation processes"<sup>25</sup> (M 9);
- 2. Innovation is one of the seven principles of LEADER/CLLD<sup>26</sup> (M 19).

Each RDP measure/sub-measure has in principle the potential to foster innovation. The specific approach towards innovation chosen by the RDP is expressed in the eligibility and selection criteria for innovation projects and in the combination of measures under FAs to support innovation (knowledge actions, advisory services, cooperation, investment, networking, etc.). Managing Authorities may use various approaches for organising and combining these soft (e.g. measures 1, 2 and 16) and hard measures (supporting investments, territorial development, marketing, environment, nature, etc.) to promote innovation.

**Secondary contributions of innovations to other FAs may occur.** For example, the cooperation operations programmed under FA 2A could produce an innovative approach for enhancing biodiversity and therefore show secondary contributions to the FA 4A. Or, innovative actions of an OG could develop a new technique, which helps to reduce soil erosion damages caused by primary agricultural production

<sup>&</sup>lt;sup>23</sup> Guidelines on programming for innovation and the implementation of the EIP for agricultural productivity and sustainability, section 8.2 page 13

<sup>&</sup>lt;sup>24</sup> Regulation (EU) No 1303/2013, Annex 1, Part 5 of Regulation (EU) No 808/2014, and Guidelines on Programming for innovation and the implementation of the EIP for agricultural productivity and sustainability (2014, p. 10)

Art. 27 of Regulation (EU) No 1303/2013 and Annex 1, Part 5 of Regulation (EU) No 808/2014
 Art. 32-34 of Regulation (EU) No 1303/2013 and Annex 1, Part 5 of Regulation (EU) No 808/2014

(programmed under FA 4C). This, however, also increases competitiveness and access to markets (a secondary contribution to FA 2A).

Networking in the context of rural development policy plays an important role in fostering innovation:

- The EIP network is a new network facility in the 2014-2020 period, specifically put in place to support the EIP-AGRI<sup>27</sup> the European Innovation Partnership for Agricultural Productivity and Sustainability. The main objectives of the EIP network are to connect EIP OGs, to facilitate the exchange of knowledge, expertise and good practices and to establish a dialogue between the farming and the research communities. The EIP-AGRI network is run by the European Commission (DG Agriculture and Rural Development) with the help of the Service Point (SP). The SP team facilitates the networking activities, enhancing communication, knowledge sharing and exchange through conferences, focus groups, workshops, seminars and publications. The primary purpose is to stimulate the interaction between all actors involved in the EIP-AGRI: farmers, researchers, advisors, NGOs, businesses, public authorities, etc. An interactive EIP web platform supports the networking functions. It enables the networking of all stakeholders related to innovation, notably of OGs, advisory services, researchers, farmers, and other stakeholders in the knowledge exchange process.
- National Rural Networks (NRNs) foster innovation in agriculture, food production, forestry and rural areas<sup>28</sup>. They are supported at the EU level by the European Network for Rural Development (ENRD). NRNs can act as "innovation brokers"<sup>29</sup>, which requires a deep connection to and a thorough understanding of the agricultural world as well as highly developed communication skills. NRNs interact with the EIP network to get inspiration and exchange information and approaches for incentivising innovation. Besides collecting good practices and examples and facilitating thematic exchanges between rural development stakeholders, they also have a dedicated task to network the innovation support services and advisory services<sup>30</sup>. This helps to capture innovative ideas from practitioners.

#### 1.2.2 The common evaluation elements for innovation

The evaluation plan<sup>31</sup> (EP) included in the RDP is the starting point for evaluations. The EP specifies the assessment of innovation among those evaluation topics and activities linked to crosscutting issues. The reporting of these related activities and findings are included in the annual implementation reports<sup>32</sup>.

The Common Monitoring and Evaluation System (CMES) includes the evaluation elements for assessing innovation, namely the common evaluation questions (CEQs), judgment criteria and indicators:

At **focus area level**, there are two innovation-related CEQs linked to the objectives of FA 1A and FA 1B. These questions capture the contributions of interventions in terms of expected outputs and results:

• CEQ no 1: "To what extent have RDP interventions supported innovation, cooperation and the development of the knowledge base in rural areas?"

<sup>&</sup>lt;sup>27</sup> Art. 53 of Regulation (EU) No 1305/2013

<sup>&</sup>lt;sup>28</sup> Art. 54 (d) of Regulation (EU) No 1305/2013

<sup>&</sup>lt;sup>29</sup> Guidelines on Programming for innovation and the implementation of the EIP for agricultural productivity and sustainability (2014, p. 13)

<sup>&</sup>lt;sup>30</sup> Art 54.3(b)(iv) of Regulation (EU) No 1305/2013

<sup>&</sup>lt;sup>31</sup> Annex I, Part 1, point 9.3 (a) of Regulation (EU) No 808/2014

<sup>&</sup>lt;sup>32</sup> Annex VII, point 2 of of Regulation (EU) No 808/2014

 CEQ no 2: "To what extent have RDP interventions supported the strengthening of links between agriculture, food production and forestry and research and innovation, including for the purpose of improved environmental management and performance?"

CEQ no. 21: "To what extent has the national rural network contributed to achieving the objectives laid down in Art. 54(2) of Regulation (EU) No 1305/2013?". relates to **other aspects of the RDP**, notably to capture the expected outputs and results achieved by NRNs. This CEQ is relevant for innovation as it concerns objective (d) of Art. 54(2) to "foster innovation in agriculture, food production, forestry and rural areas".

At the **level of EU objectives**, there are two innovation-related CEQs to capture the contribution of programmes in terms of expected impacts.

- CEQ no. 23 is related to the achievement of the EU headline target: "To what extent has the RDP contributed to achieving the EU 2020 headline target of investing 3% of EU's GDP in research and development and innovation?"
- CEQ no. 30 assesses innovation as a cross-cutting objective: "To what extent has the RDP contributed to fostering innovation?"

The following figure shows how the common evaluation elements (CEQ, judgment criteria and indicators) are related to the policy framework at the different levels. There are seven **common indicators** associated with the common evaluation questions for innovation: 5 output and 2 target indicators<sup>33</sup>.

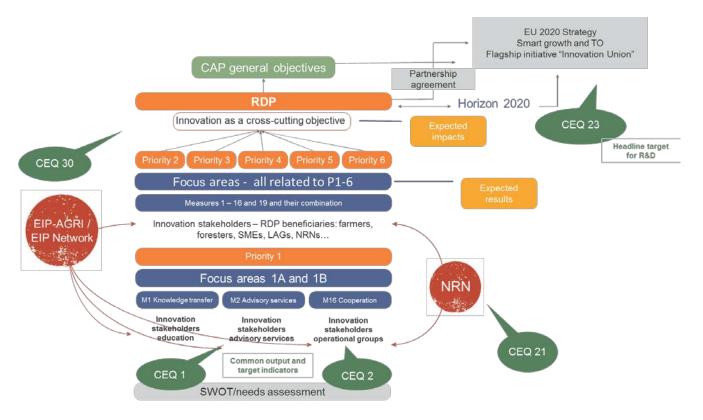


Figure 3. The common evaluation elements for the evaluation of innovation

Source: European Evaluation Helpdesk for Rural Development, 2017

<sup>33</sup> Annex IV Reg.(EU) 808/2014

# 1.3 Challenges in evaluating innovation

There are several challenges, which should be taken into consideration when evaluating innovation in RDPs.

## **Conceptual challenges**

- Identifying clearly the evaluation subject: what is the evaluation of innovation focusing on?
- Mapping the knowledge and innovation system: what are the components, their relationships, and boundaries of a given knowledge and innovation system in the rural area being assessed?
   What is the role of RDPs within it?<sup>34</sup>
- Reviewing the approach of the RDP towards innovation: What is the specific innovation potential of a given RDP? What are the objectives? Are the selection criteria specifically designed for addressing innovation?

#### **Challenges linked to the Common Monitoring and Evaluation System**

- **Developing additional and programme-specific evaluation elements:** how to design additional and programme-specific evaluation elements related to the evaluation of innovation?
- **Reporting results:** how to align evaluation procedures with the timeframe of the Annual Implementation Report in 2019, as well as with the *ex post* evaluation in 2024?

### Methodological challenges

- Attributing the innovation processes to RDP interventions: how to measure the extent to
  which the innovation processes generated in rural areas can be directly or indirectly attributed to
  the RDP interventions?
- Attribution of effects of innovation to RDP results and impacts.
- Designing adequate evaluation approaches: How to triangulate and mix quantitative and qualitative methods to interpret the evaluation findings and inform conclusions and recommendations?

#### Organisational challenges

- Ensuring effective and efficient data management: how to manage, collect and analyse data related to common and additional indicators especially when the management of innovation supporting measures is crossing over different responsible bodies?
- Coordinating involved stakeholders: how to set up a common procedure and achieve a common understanding between Managing Authorities and among various stakeholders involved in the evaluation of innovation (e.g. LAGs, EIP OGs, farmer/forester advisors, researchers)?
- Using evaluation findings for improving the policy design and implementation: how to draw follow-up conclusions and recommendations from evaluation findings to improve the RDP programme, its transparency, accountability, and common learning among RDP stakeholders?

<sup>&</sup>lt;sup>34</sup>See EIP seminar on Knowledge Systems and Interactive Innovation: <a href="https://ec.europa.eu/eip/agriculture/sites/agrieip/files/field\_event\_attachments/sem-knowledge-20151203-pres02-inge\_van\_oost.pdf">https://ec.europa.eu/eip/agriculture/sites/agrieip/files/field\_event\_attachments/sem-knowledge-20151203-pres02-inge\_van\_oost.pdf</a>

#### 2. HOW TO EVALUATE INNOVATION IN RDPS

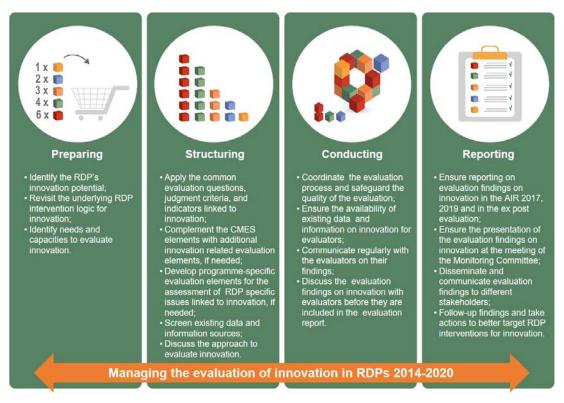
#### 2.1 Suggested approach to evaluate innovation in RDPs 2014-2020 (overview)

Managing the evaluation of innovation

The evaluation of innovation and the answering of the innovation-related evaluation questions are part of the RDP evaluation. They are therefore typically managed together with the other RDP evaluation activities<sup>35</sup>. The figure below provides an overview of this process.

The preparation, structuring and conduction of the evaluation of innovation is described in detail in Chapters 2.2 to 2.4.

Figure 4. Managing the evaluation of innovation in RDPs 2014-2020



Source: European Evaluation Helpdesk for Rural Development, 2017

<sup>&</sup>lt;sup>35</sup> More guidance is provided in guidelines: Assessment of RD results: how to prepare for reporting on evaluation findings in 2017, <a href="https://enrd.ec.europa.eu/evaluation/publications/guidelines-assessment-rdp-results-how-prepare-reporting-evaluation-2017\_en">https://enrd.ec.europa.eu/evaluation/publications/guidelines-assessment-rdp-results-how-prepare-reporting-evaluation-2017\_en</a>

## Reporting on the evaluation of innovation

The reporting of evaluation findings to the European Commission is the responsibility of the Managing Authorities<sup>36</sup>. Figure 5 shows under which CEQs the evaluation findings on innovation can be included in the AIRs in 2017, 2019 and the *ex post*.

Significant evaluation findings on innovation can be expected in the AIR in 2019 and in the ex post evaluation. Since fostering innovation is understood as a process, its results are difficult to observe at the early stages of programme implementation.

AIR 2017 AIR 2019 Quantification of programme achievements Progress towards innovation as a cross-Findings of the assessment of effectiveness in relation to innovation, in particular cutting objective of the programme and its efficiency, results, impact and achievements through answering CEQ1, CEQ2 and of the RDP in relation to the EU 2020 target contributions to achieving the EU headline on innovation and RD cross-cutting CEQ21 and their respective output and target on innovation and to smart growth target indicators through inter alia assessment of the objective of innovation. Answers to CEQ1, programme's net contributions to fostering CEQ2, CEQ21, CEQ23, CEQ30 and innovation through answering CEQ23 and programme-specific EQS, conclusions, CEQ30 and changes in their indicators recommendations in relation to innovation values

Figure 5. Reporting requirements in relation to innovation

Source: European Evaluation Helpdesk for Rural Development, 2017

These guidelines therefore focus on how to approach the evaluation of innovation from 2019 onwards.

**Other reporting formats,** besides those designed for the EU level, could be used by the Managing Authority to inform innovation actors, rural development stakeholders and the wider public on the RDP evaluation findings (see also other guidance<sup>37</sup>). Optionally, some Member States may also decide to conduct a self-standing evaluation of innovation and prepare specific evaluation reports.

<sup>36</sup> Art. 66 of Regulation (EU) No 1305/2013 and Art. 15 and annex VII of Regulation (EU) No 808/2014

<sup>&</sup>lt;sup>37</sup> See the Guidelines "Assessment of RDP results: How to prepare for reporting on evaluation in 2017", Evaluation Helpdesk, September 2016, <a href="https://enrd.ec.europa.eu/evaluation/publications/guidelines-assessment-rdp-results-how-prepare-reporting-evaluation-2017">https://enrd.ec.europa.eu/evaluation/publications/guidelines-assessment-rdp-results-how-prepare-reporting-evaluation-2017</a> en



### **Example: The on-going evaluation of EIP-AGRI in Sweden**

In Sweden, the evaluation of innovation is carried out as part of the RDP evaluation and consists of a quantitative and qualitative evaluation component. Both components are managed by the Evaluation Secretariat<sup>38</sup>. The quantitative evaluation is expected to provide findings only for the AIR to be submitted in 2019 and for the *ex post* evaluation. The uptake of measures related to innovation was still rather low for a quantitative assessment to be carried out in 2017. The qualitative evaluation is designed as an on-going formative evaluation and focuses on the implementation of EIP-AGRI. It is conducted by an action research team from the University of Umeå. This on-going evaluation aims to provide continuous feedback and recommendations for the management and implementation of EIP-AGRI (RDP M16). Findings are expected throughout the programming period, as well for the AIRs submitted in 2017 and 2019, and for the *ex post* evaluation. Both evaluation components are conducted by independent evaluators, who are selected through a tendering procedure in compliance with the public procurement law.

The legal framework requires the answering of all relevant innovation-related evaluation questions<sup>39</sup> by assessing the relevant common indicators<sup>40</sup> and by capturing the achievements of the EU rural policy in fostering innovation.

The following non-binding working steps are proposed:

Screening the innovation potential of RDP measures/sub-measures (recommended)

Before the evaluation activities for answering the innovation-related evaluation starts the Managing Authorities and/or evaluation experts may want to screen the innovation potential of the RDP measures/sub-measures (blue area in Figure 6). This step will help the evaluator and MA to understand how each measure/sub-measure can contribute to the achievement of innovation-related RDP objectives (see <a href="Chapter 2.2">Chapter 2.2</a>).

Complementing the common evaluation elements for innovation (recommended)

The CMES provides basic evaluation elements for answering the innovation-related common evaluation questions. If common evaluation elements (judgment criteria<sup>41</sup> and common indicators<sup>42</sup>) are not sufficient to capture all the expected effects, the missing elements (e.g. evaluation sub-questions, additional judgment criteria<sup>43</sup>, and additional quantitative and qualitative indicators<sup>44</sup>) can be developed by the Managing Authorities, ideally in collaboration with the evaluation experts (green parts in Figure 6), (see <a href="Chapter 2.3">Chapter 2.3</a>).

<sup>40</sup> Annex IV, point 2,3 and 4 of Regulation (EU) No 808/2014

https://enrd.ec.europa.eu/evaluation/publications/guidelines-assessment-rdp-results-how-prepare-reporting-evaluation-2017\_en

<sup>38</sup> Link to Swedish Evaluation Secretariat: <a href="https://www.jordbruksverket.se/utvardering">https://www.jordbruksverket.se/utvardering</a>

<sup>&</sup>lt;sup>39</sup> Annex VII, point 7 of Regulation (EU) No 808/2014

<sup>&</sup>lt;sup>41</sup> Judgment criteria as provided in the Working paper: Common evaluation questions for Rural Development Programmes 2014-2020, <a href="https://enrd.ec.europa.eu/evaluation/publications/working-document-common-evaluation-questions-rural-development-programmes">https://enrd.ec.europa.eu/evaluation/publications/working-document-common-evaluation-questions-rural-development-programmes</a> en

development-programmes en
42 Annex IV of Regulation (EU) No 808/2014

<sup>&</sup>lt;sup>43</sup> Additional judgment criteria are developed in MS in addition to those specified in the Working paper: Common evaluation questions for Rural Development Programmes 2014-2020

<sup>&</sup>lt;sup>44</sup> Additional indicators are those developed in MS in addition to common indicators if the common ones are not sufficient to answer evaluation questions as specified with the judgment criteria. For more guidance see guidelines: Assessment of RDP results: how to prepare for reporting on evaluation findings in 2017,

## Answering the relevant common evaluation questions (mandatory)

The RDP evaluators will assess the RDP's achievements in fostering innovation and its contributions to the EU and national/regional rural development policy objectives. They will use the evaluation findings in the formulation of answers to the common, additional and programme-specific evaluation questions (orange parts in Figure 6). The innovation-related evaluation questions will require a specific approach to answer them (see <a href="Chapter 2.4">Chapter 2.4</a>).

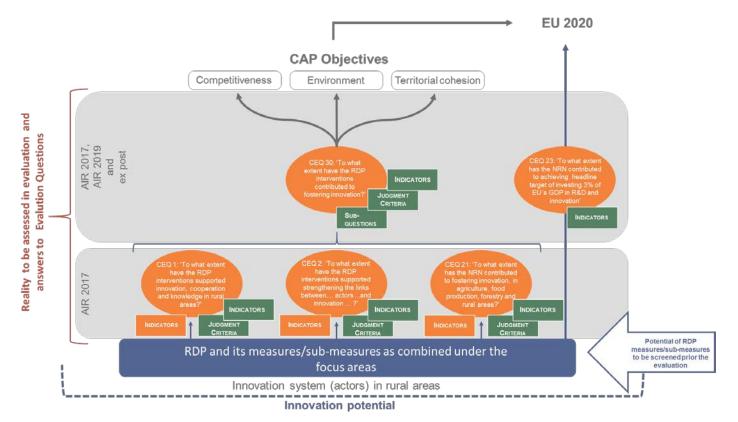


Figure 6. Approach to the evaluation of innovation in RDPs

Source: European Evaluation Helpdesk for Rural Development, 2017

# 2.2 Screening the innovation potential of RDP measures/sub-measures (recommended)

Why should we screen RDP measures for their innovation potential?

Managing Authorities have considerable flexibility to combine and design various rural development measures under the FAs resulting in very different RDP approaches towards innovation. The screening of the selection and combination of measures/sub-measures within the RDP helps to better understand the specific approach towards innovation as well as the innovation potential of the RDP. This is a useful basis for answering innovation-related common evaluation questions particularly in the later stages of the evaluation (e.g. AIR in 2019 or *ex post* evaluation) where it will be possible to capture the effects of the RDP's impacts on the innovation processes.

What is the innovation potential of RDP measures/sub-measures?

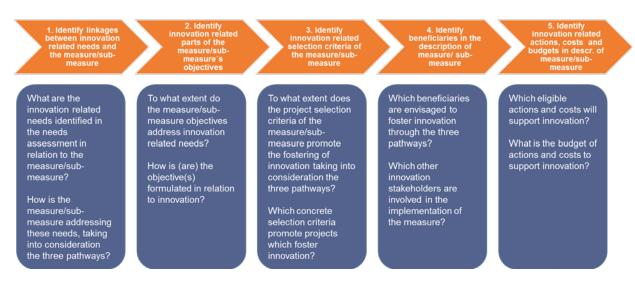
The innovation potential of the RDP measures/sub-measures, as taken alone or in combination within other measures/sub-measures under the FAs, is understood as their ability to foster innovation

within an innovation system in rural areas through a) nurturing innovative ideas, b) building capacities to innovate in a collaborative manner and c) creating an enabling environment for innovation.

What are the working steps for the identification of the RDP innovation potential?

The screening of RDP measures and sub-measures looks at how the measures are designed to help nurture new ideas, build the capacity to innovate or create an enabling environment for innovation. The working method can be an expert-based assessment or a participatory method that involves more key RDP stakeholders. Such a screening exercise could be carried out by answering to the proposed key questions (see Figure 7).

Figure 7. Steps of the screening of RDP measure/sub-measures for their innovation potential



Source: European Evaluation Helpdesk for Rural Development, 2017

What should be screened in the RDP?

The screening should focus on the ability of both individual measures and groups of measures under the FAs to foster innovation (e.g. their ability to contribute to the three innovation pathways as

explained in <u>Chapter 1.1</u>). Similarly, the **NRN's potential to foster innovation** can also be identified through the screening of the NRN actions (see <u>Section 2.4.3</u>).

Overall, the screening of the innovation potential should at least concern the measures linked to the following CEQs:

- CEQ no. 1 is linked to M1, M2 and M16 (Art. 14, 15 and 35 of Regulation EU 1305/2013 respectively). The screening will be focused on the innovation potential of these measures and help to answer the innovation part of the CEQ.
- CEQ no. 2 is linked to M16 (cooperation). The M16 sub-measures will be screened mainly for

The content of Art. 15 of Regulation (EU) 1305/2013 stipulates seven elements that shall be covered by **advice and advisory services**<sup>45</sup>. Of these, only one (point 4c), mentions innovation explicitly. There is no requirement or certainty that other types of advice (e.g. point 4g - specific advice to farmers setting up for the first time) will foster innovation. Hence the analysis of the measure design inside a specific RDP may show if the measure (or sub-measure if applied) might be relevant to foster innovation.

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<sup>&</sup>lt;sup>45</sup> Art. 15 (4), (a)-(g)

- their potential to contribute to the three pathways. The outcomes will help to answer the innovation part of the CEQ.
- CEQ no. 21 covers the four NRN objectives. The screening of the NRN innovation potential will be focused on the NRN's actions, which contribute to the NRN's common objective "Foster innovation in agriculture, food production, forestry and rural areas". This screening will help to answer the innovation-related part of the CEQ.
- 4. CEQ no. 23 will be answered with the assessment of the RDP's contributions to the achievement of the R&D/innovation headline target of reaching 3% of the EU's GDP (public and private combined) 46 while using indicators related to that target. The screening of all RDP measures for the innovation potential is important to: a) identify measures which contribute to fostering innovation and b) take into consideration the expenditures linked to these measures when calculating indicators used to answer CEQ no. 23.
- 5. CEQ no. 30 is linked to the cross-cutting objective on innovation. Here, all measures/sub-measures and their combination under each FA will be screened with a view to identify those with the potential to foster innovation through the three pathways. This analysis will help facilitate the evaluator to construct a case study evaluation based on the theory of change proposed to be used in answering CEQ no. 30.

#### What is the outcome?

The screening helps to make the innovation-related intervention logic of the RDP more explicit. It identifies the RDP measures that have the highest potential to foster innovation and clarifies also to which areas (pathways) they relate. During the later evaluation of the effects, the outcomes of this screening will be taken into consideration for comparing the potential with the actual achievements of the RDP in fostering innovation. This helps to focus the work of the evaluator on those measures and sub-measures that are deemed particularly pertinent for fostering innovation.



#### Do's

- Assess the measure design (link to needs, objectives, selection criteria, beneficiaries) for the potential to foster innovation and its intensity.
- Acknowledge the RDP's underlying innovationrelated intervention logic.

# Don'ts

Limit the screening of the RDP innovation potential only to the mention of the word "innovative" in the selection criteria and measures.

<sup>&</sup>lt;sup>46</sup> See: http://ec.europa.eu/europe2020/targets/eu-targets/index\_en.htm

### 2.3 Complementing the common evaluation elements for innovation (recommended)

Why and when to complement the CMES?

The CMES provides a basic set of evaluation elements (common output indicators) to answer the relevant common evaluation questions no. 1, 2 and 21 (see Section 1.2.1). Moreover, judgment criteria for all CEQs linked to innovation and some additional indicators are proposed in the Working Paper, Common Evaluation Questions for RDPs 2014-2020. For instance, CEQ no. 23 is linked to the EU 2020 headline target, which can be used as a basis to answer this question. CEQ no. 30 is the only question accompanied by additional indicators<sup>47</sup>.

The common evaluation elements shall be reviewed before the evaluation starts and complemented if needed. This examination may take into consideration the findings of the screening of the RDP's innovation potential in fostering innovation (see Chapter 2.2).

What are the steps for the development of additional and programme-specific evaluation elements?

The development of additional evaluation elements (described in detail in the guidelines, <u>Assessment of RDP results: how to prepare for reporting on evaluation in 2017</u>) can be summarised as follows:

- revisit the underlying RDP intervention logic for innovation (see <u>Chapter 2.2</u>);
- review common evaluation questions, judgment criteria, and indicators linked to innovation and check if they are sufficient to answer the innovation-related CEQs;
- complement the CMES with additional innovation-related evaluation elements, in case the common elements are not sufficient to answer the innovation-related CEQs;

The additional evaluation elements (additional evaluation questions, additional judgment criteria and additional indicators) suggested in these guidelines in Chapter 2.4 are **NOT BINDING!** Each MA may decide to develop and use its own additional and programme-specific evaluation elements.

 develop programme-specific evaluation elements for the assessment of innovation, related to programme-specific FAs and EQs of specific interest for the MA.

<sup>&</sup>lt;sup>47</sup> WP: Common evaluation questions for RDPs 2014-2020, <a href="http://enrd.ec.europa.eu/evaluation/publications/working-document-common-evaluation-questions-rural-development-programmes\_en">http://enrd.ec.europa.eu/evaluation/publications/working-document-common-evaluation-questions-rural-development-programmes\_en</a>



#### Do's

- Screen the CMES judgment criteria and indicators to make sure they can sufficiently answer the CEQs.
- Develop additional judgment criteria and indicators if the common ones are not sufficient to collect evidence to answer the CEQs.

#### Don't

Use only output indicators to answer the CEQs (which are not able to fully show if the policy has achieved its purpose).

# 2.4 Answering the relevant common evaluation questions (mandatory)

While answering the CEQs is mandatory, this chapter gives non-binding guidance on how to answer the innovation-related CEQ no. 1, 2, 21, 23 and 30. These questions must be answered in the enhanced Annual Implementation Report to be submitted in 2019 and in the *ex post* evaluation.



The following structure is kept for each CEQ:

- Understanding the CEQ
- Specific challenges
- Suggested approach to answer the CEQ: This chapter proposes steps, methods and tips on how to use the common and additional indicators to answer the CEQ.
  - a. Intervention logic
  - b. Evaluation elements
  - c. Proposed evaluation methodology
  - d. Risks and solutions
  - e. Conclusions and recommendations
- Further reading

# 2.4.1 CEQ no. 1: "To what extent have the RDP interventions supported innovation, cooperation and the development of the knowledge base in rural areas?"

# **Understanding the CEQ**

There are three measures which contribute most significantly to the achievement of the objective linked to CEQ no. 1 (i.e. to support innovation): M1 (Art. 14 "Knowledge transfer and information actions"), M2 (Art. 15 "Advisory services, farm management and farm relief services") and M16 (Art. 35 "Cooperation")<sup>48</sup>. In addition, M19 (Art. 42 and Art. 35 of Regulation (EU) No 1303/2013) can also be considered as an important contributor to the innovation aspect of the above objective.

It is essential to explore what aspects of the measures support innovation. For example, a given intervention logic of Priority 1 could show that M1 and M16 also contribute directly to FA 1B (M16) or FA 1C (M1) and not only to FA 1A.

The innovation-related elements of these measures can be disentangled as follows:

**M1** (Art. 14) covers vocational training and skill acquisition, demonstration activities and information actions. In addition, it may also cover farm and forest management exchanges and visits. Although innovation is not explicitly mentioned in Art. 14, these actions can play an important role in **building the capacity to innovate**.

**M2** (Art. 15) includes advice to individual farmers, young farmers and other land managers, as well as training of advisors or innovation support service providers. This covers several elements, such as the advice on RDP measures at farm level aiming *inter alia* at innovation<sup>49</sup>. The provision of advisory services is one way of **building the capacity to innovate** (see <u>Chapter 1.1</u>), by offering the opportunity to transfer knowledge. In addition, in the context of the EIP, advisors/innovation support services acquire a "coaching" role in the interactive innovation processes in the context of OGs.

**M16** (Art. 35) supports (a) cooperation between a wide range of actors that contribute to achieving the objectives of rural development policy (agriculture and forestry sectors, food chain, producer groups, cooperatives, inter-branch organisations and others); (b) creation of clusters and networks; and (c) the establishment and operation of OGs of the EIP-AGRI. M16 includes 10 sub-measures and supports innovation in relation to **all three pathways** described in Chapter 1.1 (see box below).

**M19** (Art. 42) supports the local rural development through the application of the LEADER principles <sup>50</sup>. One of these principles focuses on promoting innovations through activities of the local action groups and the beneficiaries of CLLD strategies. M19 includes 5 sub-measures, which may support innovations through one, two or all three pathways described in Chapter 1.1 (see box below).

<sup>&</sup>lt;sup>48</sup> These articles are in Regulation (EU) 1305/2013

<sup>&</sup>lt;sup>49</sup> Art. 15 (4) (c) of Regulation (EU) 1305/2013



#### **Examples of how M1 can build the capacity to innovate:**

- New skills for farmers/SMEs for applying innovative processes/techniques or new organisational skills
- Exchanges and visits that help to transfer knowledge from one farm/region to another.

#### **Examples of how M16 supports innovation:**

- The development of new products, practices, technologies in the agriculture, food and forestry sectors (sub-measure M16.2<sup>51</sup>) is related to identifying and nurturing innovation in a collaborative manner.
- All the other sub-measures have the potential to build the capacity to innovate, given that the process
  of cooperation implies to collectively identify new opportunities, produce new ideas, experiment with
  novel technology or identify new ways of doing things.
- In addition, the support offered to cooperation projects by advisors / innovation support services, including the support offered from NRNs to this end, can contribute to building the capacity to innovate.
- The involvement of innovation stakeholders in cooperation projects, (e.g. innovation support services, innovation departments, R&D centres or innovation and technology centres) may contribute to **building** an enabling environment for innovation. For instance, carrying out a collective research project may produce an outcome that may influence legislation (e.g. environmental legislation).
- The establishment and operation of OGs can bring an even more holistic approach to supporting innovation by combining all three pathways: the identification of new ideas (the starting point for OGs), building the capacity to innovate (the support from advisors/innovation support services) and creating an enabling environment for innovation (the results of the OG's projects).

#### **Examples of how M19 supports innovation:**

- Applying new ways of strategy design including various unique forms of ensuring participation of local
  people in the strategic decisions (e.g. various animation activities connected with gathering information,
  various workshops and discussion platforms, etc.) and so contribute to the enabling environment for
  innovation (pathway 3).
- Implementing innovative animation activities, which go beyond strategy design and implementation and ensure the involvement of the broader population into various LAG innovative actions (e.g. focused on building the strong territorial identity through, for example, involving natural and cultural heritage) which further support the enabling environment and nurture potential innovative ideas (pathway 3 and 1).
- Initiating innovative cooperation projects, which allow for the transfer of new knowledge, experiences
  and technologies into the LAG territory and provides a space for nurturing potentially innovative
  ideas (pathway 1).

<sup>&</sup>lt;sup>51</sup> Art. 35, (2), (b) of Regulation (EU) 1305/2013

## Specific challenges

- Developing additional and programme-specific evaluation elements: CEQ no. 1 is linked to one common target indicator (T1) which may not be sufficient to answer the CEQ and may therefore need to be accompanied by additional indicators for measuring the innovation-related expenditure of the relevant measures. At the same time, two common output indicators can be used to answer th7e CEQ no. 1 (O13 Number of beneficiaries advised and O16 Number of EIP operations). Depending on the specific intervention logic further evaluation elements may be necessary to assess all innovation-related aspects.
- Attributing observed changes with respect to supporting innovation, to measures M1, M2, M16 and M19.
- Capturing the contributions of measures programmed under other FAs (other than FA 1B) to supporting innovation.

Suggested approach to answer the CEQ no. 1

### a. Intervention logic

The intervention logic linked to the CEQ no. 1 can also be revisited from the point of view of innovation. This can be done based on the outcomes of the screening of the innovation potential (see <a href="Chapter 2.2">Chapter 2.2</a>) of measures M1, M2, M16 and M19 which are usually programmed under other FAs than FA 1A in combination with other measures. This will help to capture the programme achievements with respect to the objectives of FA 1A and identify which RDP beneficiaries and stakeholders can be data and information providers.

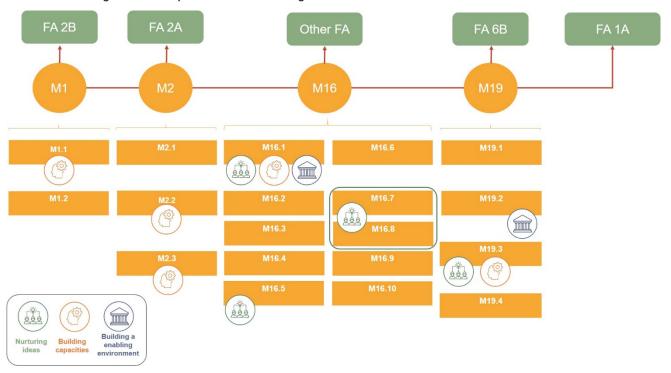


Figure 8. Example of an intervention logic linked to CEQ no. 1

Source: European Evaluation Helpdesk for Rural Development, 2017

In this example, M1 sub-measure, 'training and skills acquisition' and M2 sub-measure, "training of advisors", have been identified as having the potential to support innovation through building the capacities to innovate. The combination of M16.7 and M16.8 has the potential to support innovation through the nurturing of innovative ideas, while M16.1 has the potential to support innovation through all three pathways. Sub-measure 19.2, which supports CLLD strategies contributes to the enabling environment. The LEADER cooperation sub-measure (M 19.3) helps to nurture innovative ideas in a collaborative manner and builds capacities to innovate.

# b. Evaluation elements

The common judgment criteria and indicators for CEQ no. 1 remain at the output level of operations under M1, M2, and M16 and M19. Additional judgment criteria and indicators may need to be developed in order of assess the results of these measures (see <u>Table 1</u>)

Table 1. Evaluation elements and information sources in relation to CEQ no. 1

Judgment criteria	Indicators	Data needs	Data sources			
Common evaluation elements (CMES and elements proposed in the Working document "Common evaluation questions 2014-2020")						
RDP projects have been innovative and based on developed knowledge.	T1: % of expenditure under Art. 14, 15 and 35 of Regulation (EU) 1305/2013 in relation to the total expenditure of the RDP.  Additional indicator: % of innovative projects out of all RDP supported projects.	Data on realised expenditures for measures 1, 2 and 16.  Where possible data on expenditures on sub-measures that have been identified with a potential to support innovation should also be collected.	Application forms of beneficiaries (project start)     Payment requests of beneficiaries (project end)			
Operational groups have been created.	O.16 Number of EIP operations.	Number of EIP operations (data item 0.16).	<ul> <li>RDP monitoring system</li> <li>Application forms of beneficiaries (project start)</li> <li>Payment requests of beneficiaries (project end)</li> </ul>			
Variety of partners involved in EIP OGs.	O.16 Number and type of partners in EIP operations.  Additional indicator: number and types of partners involved in cooperation projects.	Number and type of partners.	Application forms of beneficiaries (project start)     Payment requests of beneficiaries (project end)  OG practice abstracts.			
Innovative actions have been implemented and disseminated by EIP OGs.	O.16 Number of EIP operations.  Additional indicator: number of supported innovative actions implemented and disseminated by EIP OGs divided by type, sector, etc.	Number of EIP operations (data item 0.16).	Application forms of beneficiaries (project start)     Payment requests of beneficiaries (project end)  OG practice abstracts.			

Judgment criteria	Indicators	Data needs	Data sources				
Additional evaluation elements (optional)							
The composition of EIP operational groups includes innovation stakeholders.	Composition of EIP operational groups (number and type of partners), of which are innovation stakeholders.	Number of OG partners. Type of OG partners.	RDP monitoring system				
LAGs have supported innovation projects.	Number of projects implemented by LAGs and their beneficiaries marked as innovative (respecting eligibility and selection criteria).	Monitoring data on LAG projects.	LAG operations database.				
Innovation stakeholders have been trained.	Number and type of innovation stakeholders trained.	Number and type of stakeholders trained.	Application forms of beneficiaries (project start)     Payment requests of beneficiaries (project end)  Interviews, surveys with the MA and with training providers.				
Key success factors for the support of innovation through M1, M2, M16 and M19.	Description of key factors that have contributed to support innovation in rural areas.	Qualitative information.	Interviews, surveys and focus groups with beneficiaries of innovation-related sub-measures of M1, M2 and with OGs.  EIP-AGRI and LAGs.  OG practice abstracts.  LAG operations database.				

## c. Proposed evaluation methodology to answer the CEQ 1

The calculation of the common indicators linked to CEQ 1 is described in Annex 11 of the guidelines "Assessment of RDP results: how to prepare for reporting on evaluation in 2017".

For the assessment of the innovation-related part of CEQ no. 1, it is proposed to:

- STEP 1: Identify the innovation potential of beneficiaries of measures/sub-measures M1, M2, M16 and M19 (beneficiaries who implemented operations ranked as innovative).
- STEP 2: Quantify output and target indicators by using the monitoring data from the RDP/LAG operations database on beneficiaries (who implemented operations ranked as innovative). In order to use the operations database for the evaluation of innovation, the Managing Authorities may opt to add and collect data items linked to innovation.
- STEP 3: Collect evidence for answering the CEQ with the help of specified methods. Surveys, focus groups and the Delphi method, for example, can help in the collections of data for the proposed judgment criteria and additional result indicators. The issue of data quality and validity when it is reported by beneficiaries should be considered when applying these methods (see Table 2).
- STEP 4: Analyse and interpret the collected evidence and use it to answer CEQ no. 1 in terms of supporting innovation.

Table 2. Recommended methods for CEQ no. 1

Methods		Tips on how to use the methods
Surveys to M1 and M2 managers	•	Select managers / beneficiaries of innovation-related sub-measures of M1 and M2 for conducting the survey.
Surveys to M1 and M2 beneficiaries Surveys on	•	Select a sample of cooperation projects (e.g. by sector, size of OG, geography, etc.) to collect data and information from beneficiaries for indicators via the survey.
cooperation projects of OGs Surveys with LAGs and their	•	Construct the surveys including open-ended questions on how M1 and M2 activities, OGs and LAGs contributed to: a) sharing innovative ideas, b) building the capacity to innovate, c) creating an enabling environment for innovation.
beneficiaries	•	Use the findings of the surveys to:
		<ul> <li>Assess how different forms of training and information actions under</li> <li>M1 contribute to supporting innovation;</li> </ul>
		<ul> <li>Assess how advisory services contribute to supporting innovation;</li> </ul>
	0	<ul> <li>Assess how OGs contribute to the production of results that can be used;</li> </ul>
		<ul> <li>Assess how LAGs promote innovation through projects supported by CLLD strategies or activities conducted by the LAG through their animation.</li> </ul>
Focus groups	•	Involve innovation actors in the focus groups (e.g. innovation support services, advisors acting as innovation brokers, research and innovation centres, etc.).

Methods	Tips on how to use the methods
	<ul> <li>Analyse how relevant sub-measures of M1, M2 and the OGs and LAGs influence the capacity to innovate and the creation of an enabling environment for innovation.</li> </ul>
	Consider the option of thematic focus groups (e.g. a focus group on innovation brokering).
Delphi method	Involve innovation experts (e.g. involved in the measures and in cooperation projects, but also other innovation experts, such as, academics).

### Evaluation practices reported in the AIRs in 2017



### **Examples for identifying the innovation potential**

- Castilla y León (ES) stresses the innovation potential of LAGs and recommends the analysis of the local development strategies in order to identify types of operations implemented under strategies that promote the contribution of LAGs to the innovation-related objectives of FA1A.
- Canarias (ES) also stresses the innovation potential of LAGs and recommends including a variable
  in the monitoring and evaluation system that indicates if the operations implemented by LAGs in the
  context of local development strategies under M19 are innovative.

### **Examples of additional evaluation elements**

- Bavaria (DE) mentions the use of additional judgment criteria related to innovation at the LAG level (e.g. new multi-sector projects employed by the LAG, new processes/techniques have been tested). An additional result indicator has been employed (new ideas/solutions, innovations M19). The indicator has been quantified and the information has been collected via (a) an online survey with LAG managers; (b) semi-structured interviews with selected LAG managers.
- **Czech Republic** describes the collection of data for the additional result indicator "number of participants finishing activities focused on innovations" through the operations database. It also mentions a survey with beneficiaries of supported projects to collect information on innovation.

### **Examples of methods**

- Castilla y León (ES) recommends interviewing each measure manager and including additional data elements in the monitoring system that enables the assessment of how different operations incorporate innovative elements and contribute to the innovation objectives.
- Castilla la Mancha (ES) has used a survey sent to all training participants in order to evaluate *inter* alia the contributions of knowledge transfer and information actions to innovation. The survey allowed to assess innovative training sessions.

### d. Risks and solutions

Risks	Solutions
Some data items (e.g. the final number of cooperation projects) may not be available until after the end of the programming period.	The types of cooperation structures/OGs created (legal structure, composition, statement of commitment of partners, etc.) can be analysed through a qualitative assessment as a proxy to the final number of cooperation structures.
Information on the composition and type of partners in cooperation projects or innovation stakeholders in M1 and M2, may not be recorded in the monitoring data.	The composition and types of partners can be assessed with surveys and interviews on supported operations.  Alternatively, the application forms of supported operations may provide useful data.
The type of innovation created and its use may not be recorded in the monitoring tables.	Surveys, focus groups and interviews with operational groups can help to estimate the types of innovation created.

### e. Conclusions and recommendations

The conclusions and recommendations should address at least the following policy issues:

- The realisation of the innovation potential (through the three pathways) of measures M1, M2, M16 and M19 and their identified sub-measures.
- The effect of the training and information actions under M1 and of the advisory services under M2 on building the capacity to innovate.
- The effect of cooperation projects, especially of OGs on supporting innovation, more specifically:
  - The number, scope, content and duration of OG projects can provide useful conclusions on the identification of innovative ideas that should be put into practice;
  - The number and type of OG projects as well as the involvement of innovation stakeholders may provide relevant conclusions on the achievements of the cooperation measure in relation to the innovation capacity in rural areas.
  - Conclusions on the extent to which OG projects produce structures and procedures that facilitate the production of innovation.
  - The effects of LAGs activities (including cooperation between LAGs) and projects implemented via CLLD strategies.

### **Further reading**



Guidelines Assessment of RDP Results: How to Prepare for Reporting on Evaluation in 2017, Annex 11; Guidance document "Cooperation measure", Art. 35 of Regulation (EU) No 1305/2013, November 2014 Documents from the ENRD workshop on M16 "Cooperation", June 2016, Brussels: <a href="http://enrd.ec.europa.eu/news-events/events

2.4.2 CEQ no. 2: "To what extent have RDP interventions supported the strengthening of links between agriculture, food production and forestry and research and innovation, including for the purpose of improved environmental management and performance?"

### **Understanding the CEQ**

CEQ 2 is primarily linked to M16 and its 10 sub-measures of Art. 35 - Cooperation<sup>52</sup>. Links between agriculture, food production, forestry and research and innovation can be promoted in three ways<sup>53</sup>:

- 1. Cooperation between a wide range of actors from the agricultural and forestry sector, the food chain and others that contribute to achieving the objectives of rural development policy, as well as producer groups, cooperatives and inter-branch organisations;
- 2. The creation of clusters and networks, which are more specific but important forms of cooperation;
- 3. The creation of OGs of EIP-AGRI, a new component of rural development policy, aiming to bring research and practice closer together.

Support of rural development policy to these forms of cooperation have evolved over time. In the past programming period, very specific forms of cooperation (food quality schemes and producer groups) or cooperation at local level (under LEADER) had been supported. The current policy promotes links between a broader range of actors and gives more flexibility in the scope and composition of cooperation activities. By linking agriculture, forestry and the food chain with research/innovation actors, the rural development policy places a strong emphasis on innovation as a path to achieve RDP objectives. For example:

- Linking research and practice may help to identify innovation that can enhance programme implementation and contribute to the RDP objectives.
- The emphasis on the support offered to cooperation projects by advisors and innovation support services (including the support offered by NRNs) can contribute to building the capacity to innovate and to improving the competitiveness and/or the environment.
- Cooperation for improved environmental management and performance is another focus of CEQ no. 2. The scope of cooperation projects includes the protection and improvement of resources (water, soil, air), biodiversity and the natural environment, as well as climate change mitigation and adaptation. Environmental management for climate change purposes may include actions related to water and energy efficiency and savings.

<sup>&</sup>lt;sup>52</sup> Art. 35, Regulation (EU) 1305/2013. The Guidance document « Cooperation measure » (version November 2014) offers all the list of sub-measures of the cooperation measure in Annex I., https://ec.europa.eu/eip/agriculture/sites/agrieip/files/16 measure fiche art 35 co-operation.pdf 53 Art. 35 (1), Regulation (EU) 1305/2013



### Example: Cooperation measures used for improved environmental management

Finland - M16 complements other RDP measures to achieve the objectives of priorities P4 and P5:

- 58% of M16 as well as parts of M1 and M2 are used to promote energy efficiency;
- 49% of M16 as well as parts of M1 and M2 are used for carbon sequestration and conservation;
- 10% of M16, 84% of M4 as well as parts of M1 and M2 are used to renewable sources and waste management;
- 5.5% of M16, 89% of M4 as well as parts of M1 and M2 are used to reduce GHG and ammonia emissions.

Cooperation sub-measures (e.g. support for pilot projects M16.2, support for joint actions for the mitigation and adaptation to climate change and for joint approaches to environmental projects and practices M16.5) have primary impacts on FA 4A-C and FA 5A-E.

Source: ENRD (2016). Workshop on M 16 Cooperation<sup>54</sup>.

### **Example: Linking researchers and farmers**

**Belgium -** an innovative pig stable helps to reduce ammonia emissions. To link researchers and farmers through innovation support services has been key to developing and testing these ammonia reduction techniques by adding specific bacteria to the pig manure. This also contributes to the achievement of environmental objectives of the RDP.

Source: EIP - Service Point<sup>55</sup>

### **Example: Innovation support services**

Hessen (DE) - innovation support services have helped to build the capacity to innovate through:

- Support in implementing M16,
- Information and publicity in the region,
- Networking between cooperation activities within Hessen in Germany,
- Support of cooperation activities during the preparation and implementation phase.

Source: ENRD (2016) Workshop on M 16 Cooperation<sup>56</sup>.

### Specific challenges

- Developing additional and programme-specific evaluation elements: CEQ no. 2 is linked to
  only one common target indicator (T2: Total number of cooperation operations supported under
  the cooperation measure) which may not be sufficient to answer the CEQ.
- Attributing observed changes to links between agriculture, forestry and research and innovation. These are those linked to the environmental management and performance, to the cooperation measure M16 and its contribution to the achievement of RDP objectives.

<sup>&</sup>lt;sup>54</sup>Presentation of programming examples linked to EAFRD priorities P4 and P5. Available from: http://enrd.ec.europa.eu/sites/enrd/files/w10\_m16\_finland\_karlsson.pdf

https://ec.europa.eu/eip/agriculture/en/content/innovative-stable-reducing-ammonia-emissions
 Presentation of programming examples linked to EAFRD priorities P4 and P5. Available from: <a href="http://enrd.ec.europa.eu/sites/enrd/files/w10">http://enrd.ec.europa.eu/sites/enrd/files/w10</a> m16.5 hesse de vonkutzleben.pdf

 Capturing the contributions of the measures programmed under FAs other than 1B (including sub-measures of M16) designed for strengthening the links between agriculture, forestry, research and innovation, notably those linked to environmental management and performance.

Suggested approach to answer the CEQ no. 2

### a. Intervention logic

In the example below, the intervention logic linked to CEQ no. 2 is composed of sub-measures of M16 as programmed under the FA 1B or under other FAs contributing to FA 1B's objectives.

A possible starting point for the review of the intervention logic is the screening of the innovation potential of M16 sub-measures to foster innovation through the three pathways.

Strengthening the links between agriculture, food production, forestry, research and innovation

M16.1

EIP OG
Pilot projects

M16.2
Pilot projects

M16.3
Small operations

M16.4
Short supply chains and local markets

Others

M16.5
Climate change and the environment

M16.9
Diversification and education about the environment

M16.10
Others

M16.10
Others

Figure 9. Example of innovation potential of each sub-measure of M16

Source: European Evaluation Helpdesk for Rural Development, 2017

In addition, all sub-measures of M16 programmed under other FAs than FA 1B should be included in the assessment of the achievement of the innovation-related aspects of CEQ no. 2. For example, if

The example shows the innovation potential of M16 sub-measures (as it could be programmed under any rural development FA) contributing to the policy objective of FA 1B. While all ten sub-measures of M16 contribute to strengthening links between agriculture, food production, forestry, research and innovation, only the sub-measures 5, 6, 8 and 9 show potential to contribute to strengthening these links for environmental management and performance. Regarding the three innovation pathways the sub-measures 1, 5, 6, 7, 8 foster the nurturing of innovative ideas (Pathway 1). Sub-measure 1 also fosters building capacities and the creation of enabling environment (Pathway 2 and 3).

M16.1 is programmed under FA 2A, the contributions to linkages among farmers, researchers and innovation advisers can be considered in the assessment of CEQ no. 2.

### b. Evaluation elements

The common judgment criteria and indicators for CEQ no. 2 remain at the output level of operations under the cooperation measure. Additional judgment criteria and indicators may need to be developed in order to assess the results of these measures. The table below lists the judgment criteria, indicators and data requirements for answering CEQ no. 2.

Table 3. Judgment criteria, indicators and data needs and sources

Judgment criteria	Indicators	Data needs	Data sources
Common evaluation elements (CMES	S and proposed in Working document "Co	ommon evaluation questions 2014-2020")	
Long-term collaboration between agriculture, food production, forestry entities and institutions for research and innovation has been established.	T2: Total number of cooperation operations supported under the cooperation measure (art. 35 of Regulation(EU) No 1305/2013 (groups, networks/clusters, pilot projects).  Additional indicator: Number and types of partners involved in cooperation projects, including their roles and responsibilities.	Number of EIP operations (data item O.16).  Number of other cooperation operations (groups, networks/clusters, pilot projects) to be supported under M16 'Cooperation' (data item O.17).  Types of partners involved and their number.	RDP monitoring system     Application forms of beneficiaries (project start)     Payment requests of beneficiaries (project end)
	O.3 Number of operations supported.	Total number of operations supported.  Number of cooperation operations supported (O.16+O.17).	<ul> <li>RDP monitoring system</li> <li>Application forms of beneficiaries (project start)</li> <li>Payment requests of beneficiaries (project end)</li> </ul>
Cooperation operations between agriculture, food production, forestry, research and innovation for the purpose of improved environmental management and performance have been implemented.	T2: Total number of cooperation operations supported under the cooperation measure (art. 35 of Regulation(EU) No 1305/2013 (groups, networks/clusters, pilot projects).  Additional indicator: % of cooperation operations continuing after the RDP support including for the purpose of improved environmental management and performance.	Number of EIP operations (data item O.16), dealing with improved environmental management and performance.  Number of other cooperation operations (groups, networks/clusters, pilot projects) to be supported under M16 Cooperation (data item O.17), dealing with improved environmental management and performance.	RDP Monitoring system     Application forms of beneficiaries (project start)     Payment requests of beneficiaries (project end)

Judgment criteria	Indicators	Data needs	Data sources
	Additional indicator: Number and types of partners involved in cooperation projects, including their roles and responsibilities.	Types of partners involved and their number.	
	O.3 Number of operations supported	Total number of operations supported.  Number of cooperation operations supported (O.16+O.17).	RDP monitoring system     Application forms of beneficiaries (project start)     Payment requests of beneficiaries (project end)
Additional evaluation elements (opti	onal)		
Cooperation projects have improved the capacity to innovate, including in the field of environmental management and performance.	Number and type of innovations produced by cooperation projects, among them those focused on environmental management and performance.	Number of innovations produced.  Number of innovations for improved environmental management and performance.	Surveys.  Interviews and focus groups with those participating in cooperation projects.  GIS.

### c. Proposed evaluation methodology

The calculation of the common indicators linked to CEQ 2 is described in Annex 11 of the Guidelines "Assessment of RDP results: how to prepare for reporting on evaluation in 2017"

For the assessment of the innovation-related part of CEQ no. 2 it is proposed to:

- STEP 1: Identify beneficiaries of M16 and its sub-measures in accordance with the results of identifying their innovation potential (beneficiaries who implemented operations ranked as innovative)
- STEP 2: Quantify output and target indicators with the help of monitoring data from the RDP operations database on OGs. For using the operations database for the evaluation of innovation the Managing Authorities may add and collect data items linked to OGs and innovation.
- STEP 3: Collect evidence for answering the CEQ with the help of specified methods. Design open-ended questions for using the methods included in the table below (surveys, focus groups and Delphi method) respecting the proposed judgment criteria and indicators as well as the results of the identification of the innovation potential.
- STEP 4: Analyse and interpret the collected evidence and use it to answer CEQ no. 2 in terms of strengthening the links with respect to innovation.

Table 4. Recommended methods for CEQ no. 2

Methods	Tips on how to use the methods
Survey to cooperation projects and final beneficiaries	<ul> <li>Select a sample of cooperation projects (e.g. by sector, size of OG, geography, etc.) to collect data and information from beneficiaries for indicators via a survey.</li> </ul>
	<ul> <li>Select inter alia cooperation projects that may have an incidence on environmental management and performance (e.g. sub-measures 5, 6, 8 and 9 or operational groups in this field - M16.1).</li> </ul>
	<ul> <li>Construct the surveys including open-ended questions on how cooperation projects contribute to: a) sharing innovative ideas b) building the capacity to innovate c) creating an enabling environment for innovation.</li> </ul>
	<ul> <li>Use the findings of the surveys to: assess how different forms of cooperation projects (cooperation between different actors, clusters &amp; networks and operational groups) contribute to stronger links between research/innovation and practice.</li> </ul>
Structured focus groups	<ul> <li>Conduct focus groups with innovation stakeholders (e.g. innovation support services, advisors acting as innovation brokers, researchers and innovation centres, etc.).</li> </ul>
	Analyse how links between stakeholders influence the capacity to innovate and to create an enabling environment for innovation.
	<ul> <li>Consider the option of a thematic focus groups (e.g. a focus group for cooperation projects that deals with environmental issues, another for EIP operational groups, etc.).</li> </ul>
Delphi method	<ul> <li>Organise a Delphi process with innovation experts (e.g. involved in cooperation projects, but also academics, etc.) to reach judgments on the relevant criteria.</li> </ul>



### **Examples from the AIRs submitted in 2017**

Mecklenburg-Vorpommern (DE) - uses three judgment criteria in relation to innovation:

- RDP-supported processes are innovative and based on obtained knowledge,
- Innovative actions are implemented and disseminated via OGs,
- Obtained results lead to improved market position of involved partners via innovation.

Several methods are used to collect information from EIP OGs. These cover different dimensions of innovations, and have the aim to judge the quality and effects of OGs:

- Baseline analysis (assessment of framework conditions, interviews with actors, etc.);
- Assessment of innovation characteristics and types through the analysis of the selection criteria and case studies;
- Analysis of obtained results and their dissemination (survey and self-assessment of OGs).

Data and information sources include monitoring data, application forms, projects documentation, primary statistical data collected via surveys, secondary statistical data from various sources.

The survey with beneficiaries (EIP OGs) is carried out before and after the intervention.

**Czech Republic -** suggests using a case study-based approach to gather information from OGs and cooperation projects related to innovation.

### d. Risks and solutions

Risks	Solutions
For some indicators, data may not be available until after the end of the programming period, (e.g. number of cooperation operations that continue after RDP support).	The types of cooperation structures created (legal structure, composition, statement of commitment of partners, etc.) can be analysed with a qualitative assessment (e.g. using focus groups or interviews with OG's partners).
To collect information for some indicators, which might not have been included in the RDP monitoring system (e.g. additional indicators).	The collection of information can be done through surveys and interviews.  Alternatively, the Managing Authorities can consider including the collection of data for additional indicators via the operations database.

### e. Conclusions and recommendations

The main conclusions and recommendations should address at least the following policy issues:

- The tendency of the RDP to use the cooperation measure to identify innovation in rural
  areas. The creation of an operational group, for instance, shows that an innovative idea has been
  identified and can be implemented by linking research and practice. The scope, content and
  duration of the project prepared and implemented by the OG provides useful information to draw
  further conclusions in this respect.
- The effects of the cooperation projects on the capacity to innovate. The analysis of the number and type of cooperation projects as well as the involvement of innovation stakeholders may allow for conclusions on the achievements of the cooperation measure in relation to the innovation capacity in rural areas.

 The effects of the cooperation projects on building an enabling environment for innovation (i.e. the extent to which cooperation projects have enabled the creation of structures and procedures that facilitate the production of innovative ideas). This includes, for example, innovation brokering structures and methods, the establishment of permanent links between SMEs, innovation services and funding bodies, etc.

### **Further reading**



Guidelines "Assessment of RDP results: How to prepare for reporting on evaluation in 2017", Annex 11;

Guidance document "Cooperation measure", Art. 35 of Regulation (EU) No 1305/2013, November 2014;

Documents from the ENRD workshop on M 16 "Cooperation", June 2016, Brussels <a href="http://enrd.ec.europa.eu/news-events/events

# 2.4.3 CEQ no. 21: "To what extent has the national rural network contributed to achieving the objectives laid down in Art. 54(2) of Regulation (EU) No 1305/2013?"

### **Understanding the CEQ**

This question refers to the achievement of the four objectives of the NRN<sup>57</sup>. These guidelines<sup>58</sup> discuss CEQ no. 21 in relation to the NRN's objective "to foster innovation in agriculture, food production, forestry and rural areas" for the purposes of evaluating innovation, as fostered by NRNs from 2019 onwards.

The NRN functions through various groups of actions established in the NRN action plan and includes various types of stakeholders among them also innovation actors. Therefore, it is important to acknowledge, which groups of actions<sup>59</sup> have the potential to foster innovation through the three pathways (see <u>Chapter 1.1</u>) and which types of stakeholders of the innovation system are involved and can be affected by these actions in terms of fostering innovation.

The actions included in the NRN action plan would fall under seven groups of activities as stipulated in the Regulation<sup>60</sup>. Examples of how these activities could be related to fostering innovation are given in the boxes below.

NRNs, as part of technical assistance, are devoted to accompanying and supporting RDP implementation and there contribute directly to fostering innovation as a cross-cutting objective. However, NRNs can also work in synergy with other rural development innovation actors such LEADER LAGs or EIP-AGRI (see example in the box).

<sup>&</sup>lt;sup>57</sup> Art. 54(2) of Regulation (EU) 1305/2013.

<sup>58</sup> The guidance how to answer the CEQ no. 21 has been provided also in the guidelines "Assessment of RDP results: how to prepare for reporting on evaluation in 2017", Annex 11, in which all the NRN-related objectives have been taken in consideration in relation to answering the CEQ, <a href="https://enrd.ec.europa.eu/evaluation/publications/guidelines-assessment-rdp-results-how-prepare-reporting-evaluation-2017">https://enrd.ec.europa.eu/evaluation/publications/guidelines-assessment-rdp-results-how-prepare-reporting-evaluation-2017</a> en
59 Art. 54. of Regulation (EU) 1305/2013

<sup>&</sup>lt;sup>60</sup> Art. 54 (3) (b) of Regulation (EU) 1305/2013

### Nurturing new ideas and the sharing of innovations:

- The collection of project examples covering all priorities of the RDP: these may focus, for example, on innovative projects or creating databases of innovative projects and contributing therefore to the identification and sharing of innovations.
- Facilitation of thematic and analytical exchanges between rural development stakeholders, sharing
  and dissemination of findings. Such exchanges may also foster innovation by nurturing and sharing
  new ideas and creating the conditions for the development of new knowledge.
- Publicity and information concerning the RDP and information and communication activities aimed
  at the broader public. These may include *inter alia* information on the innovation-related
  achievements of the RDP, the achievements of the EIP OGs, how CLLD strategies and partnerships
  foster innovation and examples of such partnerships and innovative LEADER/CLLD projects, etc.

### **Building the capacity to innovate:**

- Provision of training and networking activities for advisors and innovation support services, focused on innovation in agriculture, forestry and other sectors concerned with the RDP. The training of advisors and innovation support services may for instance facilitate the creation of EIP OGs and therefore contribute to building the capacity to innovate in rural areas, since OGs are expected to develop innovative projects.
- Provision of training and networking activities for LAGs and in particular technical assistance for inter-regional and transnational cooperation, facilitation of cooperation among LAGs and the search for partners under M16 (cooperation). The NRN may for instance facilitate cooperative efforts which support experimentation and innovation.

### **Building an enabling environment for innovation:**

- Participating and contributing to the European Networks' activities, notably the ENRD and the EIP-AGRI, can offer the possibility to foster an enabling environment for innovation through these networks.
- NRNs can foster innovation by connecting innovation actors (farmers, researchers, NGOs, LAGs, etc.), collecting information, animating bottom-up initiatives, helping to refine innovative ideas and providing support for finding partners and funding, all of which contribute to an enabling environment for innovation.

It should be noted that this evaluation question refers to NRNs fostering innovation not only in agriculture but encompasses rural areas in their entirety. NRNs can be active in many ways to foster innovation and bring "something new" to rural communities, by:

- 1. working with rural organisations and businesses to generate new ideas and approaches for tackling common needs;
- 2. capitalising on good practices by linking rural development practitioners with relevant experts, academia and research institutes;
- 3. Providing trainings on specific innovation-related topics;
- 4. Helpings LAGs and LEADER stakeholders to support innovation as a key principle of their local development strategies and "incubate" new ideas and approaches.

Before approaching CEQ no. 21, it is therefore important to clarify these aspects and to achieve a good understanding of how a given NRN can foster innovation through their activities.

### Specific challenges

- Developing additional and programme-specific evaluation elements for evaluating innovation in relation to NRNs. How can one design and use additional (result and impact) indicators besides the output indicators already provided by the CMES to answer CEQ no. 21, from the point of view of fostering innovation?
- Attributing the innovation processes to the NRN interventions. How can one measure the
  extent to which the innovation processes generated in rural areas can be directly or indirectly
  attributed to the NRN's activities?
- Attributing innovation fostered through the RDP to the NRN, notably, by assessing the extent to which the innovation fostered through the RDP can be linked with the NRN's activities. This means that the effects of the NRN's activities on fostering innovation should be isolated from the effects of other RDP interventions (other measures, etc.).

Suggested approach to answer CEQ no. 21

### a. Intervention logic

The approach of the RDP towards innovation as established during the programme design<sup>61</sup> also includes the NRN. In the preparing of the evaluation to be reported in the AIR submitted in 2019, the NRN group of actions included in the NRN action plan are screened for their potential to foster innovation in the same manner as the RDP measures. This refers to the NRN's potential to: a) identify and share new ideas b) build the capacity to innovate c) create an enabling environment for innovation. Consequently, all activities implemented under the NRN's group of actions, which have shown innovation potential are taken as part of the NRN's underlying innovation-related intervention logic.

The figure below illustrates the NRN's innovation-related intervention logic and how it can be reconstructed from the NRN's existing intervention logic or from the NRN's action plan.

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<sup>61</sup> Art. 8.1 (c)(v) of Regulation (EU) No 1305/2013 and Annex I, Part I, point 5 (c) and (e) of Regulation (EU) No 808/2014

Expected contributions of innovations to the RDP's objectives Overall NRN objective: **Expected NRN impacts:** Defined for each RDP Build/improve the capacity to innovate through the NRN's support. Expected NRN results in relation to: the NRN's support.
Create an enabling environment for nurturing innovation, building capacities, innovation. Contribute to the identification and sharing of building an enabling environment. NRN groups of activities: **Expected NRN outputs:** Training and networking for innovation support NRN communication tools for innovation. Thematic and analytical exchanges on innovation topics set Facilitation of thematic and analytical exchanges on innovation related topics.

Collection of examples of innovative projects. up with the support of the NRN. ENRD activities related to innovation in which the NRN has participated.

Figure 10. Intervention logic of the NRN with respect to innovation

Source: European Evaluation Helpdesk for Rural Development, 2017

NRN action plan

Based on the figure an innovation-related NRN intervention logic can be reconstructed in the following way:

- STEP 1: Identify innovation needs of the RDP territory that can be tackled through rural networks.
- STEP 2: Link the activities as listed in the NRN's action plan (and pre-defined in the regulatory framework of the 2014-2020 programming period<sup>62</sup>) with the three pathways and consequently with the overall objective to foster innovation through the NRN (as based on the analysis of the innovation potential of measures – see Chapter 2.2)
- STEP 3: Use the theory of change to define the expected outputs as generated through the activities, which lead to expected results as linked to the three pathways. Impacts as linked to the common NRN objectives and RDP's objectives.

### b. **Evaluation elements**

There is one judgment criterion for answering CEQ no. 21, notably, "Innovation in agriculture, food production forestry and rural areas has been fostered by the NRN"63. This is supported by two common output indicators<sup>64</sup>:

- Number of thematic and analytical exchanges set up with the support of NRN (O24)
- Number of ENRD activities in which the NRN has participated (O26)

Additional judgment criteria and indicators are proposed in Table 5. For this purpose, the existing judgment criterion has been broken down into several ones, along the three innovation pathways.

<sup>&</sup>lt;sup>62</sup> Art. 54 of Regulation (EU) 1305/2013.

<sup>&</sup>lt;sup>63</sup> Evaluation Helpdesk, Working Paper: Common Evaluation questions for RDPs 2014-2020, available from http://enrd.ec.europa.eu/evaluation/publications/working-document-common-evaluation-questions-rural-developmentprogrammes en 64 Idem

Table 5. Proposed additional judgment criteria, indicators and data for answering CEQ no. 21

Judgment criteria	Indicators	Data needed	Data sources
Common evaluation elements (CMES ar	nd proposed in Working Document "Com	mon evaluation questions 2014-2020")	
Innovation in agriculture, food production, forestry and rural areas has been fostered by the NRN.	O.24 – Number of thematic and analytical exchanges set up with the support of NRN (those related to innovation).  O.25 – Number of NRN communication tools (those related to innovation).  O.26 – Number of ENRD activities in which the NRN has participated (those related to innovation).  Additional indicator:  % of innovative projects encouraged by the NRN out of the total number of innovative projects supported by the RDP.	Data on innovative thematic and analytical exchanges set up by NRN.  Data on communication tools related to innovation established by NRN.  Information on ENRD activities in relation to innovation in which the NRN participated.  Data on RDP innovation projects initiated/supported by the NRN.	RDP monitoring system.  NRN monitoring and self-assessment;  ENRD monitoring (network statistics).
Additional evaluation elements linked to the NRN's contribution to the identification and sharing of innovation (optional)			
Publicity, information and communication activities carried out by the NRN concerning innovation in the RDP have increased.	Number of publicity, information and communication activities concerning innovation carried out by the NRN.	Number of publicity, information and communication activities, by topic.	NRNs monitoring and self-assessment. Interviews. NRN publications.

Judgment criteria	Indicators	Data needed	Data sources
Additional evaluation elements linked to the NRN's contribution to the capacity to innovate (optional)			
NRN activities concerning training and networking have increased for: a) advisors and innovation support services and/or b) LAGs.	Number of NRN training and networking activities for: a) advisors and innovation support services and/or b) LAGs.	Number of training and networking activities, by target group.	NRNs (monitoring, self-assessment, interviews, publications).  LAGs (interviews, surveys, focus groups).
The ability of advisors and innovation support services to facilitate the establishment of OGs has improved due to the NRN's activities.	Number of OGs that have been set-up with the support of advisors / innovation support services who have received training/networking activities by the NRN.	Number of OGs set up with the support of advisors / innovation support services.  Number of OGs set up with the support of advisors / innovation support services who have received training/networking activities by the NRN.	NRNs (monitoring, self-assessment, interviews, publications).  Surveys/focus groups with OGs.  Surveys/focus groups to advisors (innovation support services).
Additional evaluation elements linked to	o the NRN's contribution to building an e	nabling environment to innovate	
Participation of the NRN to innovation-related ENRD activities has increased.	Number of ENRD activities in which the NRN has participated (O.26), of which on innovation topics.	Number of ENRD activities in which the NRN has participated (data item 0.26), by topic.	Monitoring tables.  NRNs (monitoring, self-assessment, interviews, publications).
Participation of the NRN in the EIP's activities has increased.	Number and type of contributions of the NRN to the EIP-AGRI, of which:  Provision of examples of projects / good practice targeting innovation;  Organisation of meetings on innovation;  Networking events between innovation stakeholders, namely LAGs and OGs;  Cross-border exchanges of information about projects, research initiatives,	Number of contributions of the NRN to the EIP by type as stipulated by Article 35.2, (a) – (f) of Regulation (EU) no 1305/2013.	NRNs (monitoring, self-assessment, interviews, publications).  Networking structure at the Member State level for innovation support services (if separate from the NRN).  EIP Service Point.  Surveys/focus groups with OG projects.

Judgment criteria	Indicators	Data needed	Data sources
	thematic networks and funding possibilities under Horizon2020; Support activities to Innovation Support Services for animating innovative actions and establishing OGs; Support with partner search.		
Increased collaboration, exchanges and networking among innovation project partners.	Number of additional networks / partnerships / cooperation groups among innovation project partners encouraged by the NRN.	Number of networks, partnerships and/or cooperation groups among innovation project partners that were supported by the NRN.	NRN database. Surveys/focus groups.

### c. Proposed evaluation methodology

We recommend the following steps for answering CEQ no. 21:

- STEP 1: Gather information to identify the NRN's contribution to fostering innovation from stakeholders involved in the NRN's actions which have innovation potential. This can be done through the use of the judgment criteria and indicators and the implementation of the methods included in Table 6 below.
- STEP 2: Quantify output indicators and NRN-specific indicators linked to innovation by
  using monitoring data on the NRN's activities from the RDP's operations database and NRN
  monitoring system.
- STEP 3: Apply the theory of change to compare the findings with the innovation potential of the NRN's activities identified at the beginning of the evaluation process with the implemented NRN's activities. This includes the development of a causal timeline and narrative describing the outcomes of the NRN's activities in relation to the innovation pathways and how they came about (also using the information from the monitoring system). Validate the above with the use of triangulation techniques.
- STEP 4: Answer the CEQ by judging the extent to which the NRN has contributed to fostering innovation through different groups of activities by using a Likert scale<sup>65</sup>. The evaluator should also rate the level of confidence the surveyed/interviewed stakeholder has in the findings on a similar five-point scale. The ratings given will need to be justified.



### Examples from the AIRs submitted in 2017

**Czech Republic** - mentions case studies based on information collected from beneficiaries of innovative projects. It proposes tracking the data on innovative projects for output indicators O.24 and O.25 through the operations database and using them in the evaluation in 2019:

- O.24 Number of thematic and analytical exchanges between rural development stakeholders set up
  with the support of the NRN exchanges focused on advisors and services supporting innovations.
- O.25 Number of NRN communication tools focused on advisors and services supporting innovations.

**Slovakia** - describes interviews with involved actors (NRN, and participants of the NRN's activities) to collect data for additional indicators: Share (%) of innovative projects supported by the NRN on the total number of innovative projects supported by the RDP.

Castilla y León (ES) - recommends introducing in the monitoring system an indicator that measures the number of participants in projects of M16.

The guidelines <u>Evaluation of NRNs 2014-2020</u><sup>66</sup> provide a detailed description of methods and tools for evaluating NRNs. They propose a mixed approach combining qualitative and quantitative methods. These in turn comprise surveys, dialogue based methods, analytical methods and diagnostic methods.

The following table provides a brief overview of methods for answering CEQ no. 21, with respect to the innovation objective (d) of NRNs. A full description of these methods can be found in the guidelines Evaluation of NRNs 2014-2020.

<sup>65</sup> Allen and Seaman (2007)

<sup>&</sup>lt;sup>66</sup> Evaluation Helpdesk, Guidelines Evaluation of NRNs 2014-2020, 2016, Chapter 3.1.3 and Part III. https://enrd.ec.europa.eu/evaluation/publications/guidelines-evaluation-national-rural-networks-2014-2020\_en\_

Table 6. Recommended methods for CEQ no. 21

Method	Tips for using each method to answer the CEQ21
Surveys	Can be used to collect data and information on innovation that is not in the monitoring databases, particularly in relation to the additional indicators.
ourveys	Surveys can be addressed to the NRNs, EIP OGs, project beneficiaries and other innovation stakeholders.
	Used as a means for dialogue-based evaluation methods, they can be arranged as follows for CEQ21:
Focus groups (dialogue based method)	<ul> <li>In a two-tier architecture, creating focus groups at different levels (i.e. advisors/innovation support services and LAGs). Both levels may receive training and networking activities from the NRN.</li> </ul>
	<ul> <li>Focused on the thematic area of innovation (e.g. set up groups of people with a diversity of perspectives to validate NRN activities aimed at fostering innovation).</li> </ul>
Functional analysis of networks (diagnostic method)	Combine an online survey to OGs (distinguishing between those that have received some type of support – brokerage function, training, etc. – from the NRN and those who have not) with a series of in-depth interviews with selected OGs. Alternatively, a focus group can be organised in order to reflect on the preliminary results of the online survey.
Stakeholder analysis (diagnostic method)	It can be addressed to innovation stakeholders at different levels: the NRN or the network structure at the Member State level for innovation support services (if separate from the NRN); the coordinators of thematic networks, the coordinators of OGs and even the EIP Service Point.
	Stakeholder analysis will help collect information on those indicators where data is not collected through the monitoring database. In the case of CEQ no. 21, only three output indicators can be quantified with the help of monitoring data and even there, data may be too generic and not address the innovation elements. For example, the number of thematic and analytical exchanges set up with the support of the NRN (O.24) may be recorded in the monitoring database, but without reference to which of these exchanges focused on innovation topics.
Social Network Analysis (SNA) (diagnostic method)	SNA can be conducted on a thematic aspect, notably the fostering of the NRN's innovation objectives, by looking at innovation network plots (e.g. identifying key innovation players within the network), assessing their structural characteristics (e.g. centrality or peripherality of innovation stakeholders) and on overlaps between them (e.g. for identifying key connectors), and discussing them in a focus group.
	SNA can help measure the involvement of innovation stakeholders in the NRN and assess the effectiveness of innovation-related outputs (e.g. thematic and analytical exchanges on innovation, training and networking activities on innovation and the collection of project examples in relation to innovation).
Case studies	Case studies can be adapted and used in any evaluation. They offer the possibility to mix various methods and are very flexible in their design. In the case of CEQ no. 21, it is proposed that one should build case studies around the following issues/criteria linked to innovation:

Method	Tips for using each method to answer the CEQ21
	A. Analyse the role of the NRN in setting up operational groups and thus fostering innovation in agriculture, forestry and rural areas.
	B. Analyse the contributions of the NRN to promote advisors and innovation support services as coaches in the interactive innovation processes (e.g. capturing practice ideas, acting as brokers, facilitators and disseminators of new knowledge).
	C. Analyse the role of NRNs in thematic networks, which connect operational groups and therefore assess links with Horizon 2020.

### d. Risks and solutions

Risks	Solutions		
Data for the three common output indicators should be available, but most likely not focused on innovation. For example, data on thematic and analytical exchanges may not be collected by topic, more specifically the topic of innovation. Likewise, data on communication tools may not be disaggregated by subject (e.g. communication of innovation results).	MAs could include the innovation component for the three common output indicators in the monitoring databases <sup>67</sup> .		
For all other indicators proposed, data would not be collected for monitoring purposes, unless a MA/NRN has decided to do so in addition to the common data items.	At an early implementation stage, NRNs should flag their activities that are geared towards fostering innovation (e.g. training of innovation stakeholders, thematic exchanges on innovation, the collection of good practices on innovation, support to the set-up of OGs, etc.).		
Relying only on one method (qualitative or quantitative) to analyse the data may not give reliable findings.	Use a combination of evaluation methods, which collect information on a continuous or <i>ex post</i> basis, such as those suggested above (surveys, focus groups, diagnostic methods, case studies) and enable to one to triangulate and obtain more robust findings.		

### e. Conclusions and recommendations

Conclusions and recommendations should relate to:

- The contribution of NRNs to fostering innovation in agriculture, food production, forestry and rural areas;
- The main factors and conditions that make NRNs key players in the interactive innovation processes;
- The role of NRNs in the innovation system: 1) identifying innovation through the collection and dissemination of good practice 2) building capacity to innovate through training, networking, thematic and analytical exchanges 3) building an enabling environment for innovation through supporting and animating the EIP's OGs.

<sup>&</sup>lt;sup>67</sup> Example from Italian NRN. <a href="http://www.reterurale.it/flex/cm/pages/ServeBLOB.php/L/IT/IDPagina/16281">http://www.reterurale.it/flex/cm/pages/ServeBLOB.php/L/IT/IDPagina/16281</a>

### **Further reading**



European Evaluation Helpdesk (2016). Guidelines "Assessment of RDP results: How to prepare for reporting on evaluation in 2017" Annex 11

ENRD (2014). NRN Guidebook. Luxembourg Publications Office

European Evaluation Helpdesk (2016), Guidelines Evaluation of National Rural Networks 2014-2020

European Commission, DG AGRI (2014). Guidelines on programming for innovation and the implementation of the EIP for agricultural productivity and sustainability

European Evaluation Helpdesk (2014). Intervention logic and evaluation framework for 2014-2020 National Rural Networks. Background document presented at the Good Practice Workshop "National Rural Networks: How to show their benefits", Rome (Italy), 10 and 11 April 2014

2.4.4 CEQ no. 23: "To what extent has the RDP contributed to achieving the EU 2020 headline target of investing 3% of the EU's GDP in research and development and innovation?"

### **Understanding the CEQ**

This CEQ relates to one of the five EU 2020 strategy headline targets: "3% of the EU's GDP to be invested in R&D/innovation". To understand the question, the context and measurement of the headline target should be acknowledged, and most importantly its aim to improve the conditions for innovation, research and development, while using the combination of public and private funds.

The headline target is linked to the EU 2020 strategy priorities for smart, sustainable and inclusive growth based on knowledge and innovation. Attention is focused on the need for both the public and private sectors to invest in R&D, but it focuses on input rather than impact<sup>68</sup>. There is a clear need to improve the conditions for private R&D in the EU and many of the measures proposed in this strategy will do this. It is also clear that by looking at R&D and innovation together we would get a broader range of expenditures, which would be more relevant for business operations and for the productivity drivers. The Commission proposes to keep the 3% target, while developing an indicator which would reflect R&D and innovation intensity.

This headline target has been translated in the EU Member States into national targets reflecting different situations and circumstances so that each Member State can check its own progress towards the EU 2020 goals<sup>69</sup>.

### Specific challenges

Data management to obtain a high quality of data on R&D and innovation: Eurostat regularly publishes a comprehensive progress report for the headline target indicator<sup>70</sup>. Data collection is

<sup>&</sup>lt;sup>68</sup> EUROPE 2020, A strategy for smart, sustainable and inclusive growth, <a href="http://eur-lex.europa.eu/legal-">http://eur-lex.europa.eu/legal-</a> content/en/ALL/?uri=CELEX%3A52010DC2020

69 http://ec.europa.eu/europe2020/targets/eu-targets/index\_en.htm

http://ec.europa.eu/eurostat/statistics-explained/index.php/R\_%26\_D\_expenditure

guided by the Frascati Manual (OECD)<sup>71</sup> and by specific EU regulations<sup>72</sup>. The Frascati Manual is also the basis for the collection of data for the proxy indicator of the headline target indicator "gross domestic expenditure on R&D (GERD)" which is collected by Eurostat<sup>73</sup>. It includes the expenditures on research and development by business enterprises, higher education institutions, as well as by government and private non-profit organisations. GERD is provided by Eurostat for NUTS 1 and NUTS 2 levels. The indicator "% of total GERD" shows the relative shares of the different sources of funds in R&D: industry, government, the higher education and the private non-profit sector. The fifth source of funds shown, is GERD financed from abroad. "% of total GERD" is provided for NUTS 1 level. Although Eurostat publishes the most recent data, there is a time-lag between 2 to 3 years. Eurostat does not provide data for GERD and the % of total GERD per economic sector (e.g. food industry, agriculture). Although the statistics refer to research and development expenditures explicitly, they in fact also include expenditures on **innovation** to a certain point as stipulated by the Europe 2020 Strategy. For funding programmes which promote innovation, a reference point is the Frascati Manual. It measures scientific, technological and innovation activities, however, the line between R&D and innovation activities is not always entirely clear.

• Assess the contribution of the RDP to the headline target: The challenge is to adequately and realistically reflect the contributions of the RDP to the headline target bearing in mind the orientation of the programmes towards the Europe 2020 Strategy. In this evaluation task, it is also necessary to consider the characteristics of the EAFRD interventions and specificities of rural areas and sectors in which they function. Since the rural areas are usually structurally weaker than urban areas and the EU 2020 strategy is based on investments in growth areas and sectors, a relatively lower contribution of RDPs compared to other operational programmes can be expected<sup>74</sup>. However, what may look less important for national economies, can be of high value for the GDP in rural areas and their future development. Therefore, the headline target for the RDP contributions should be calculated and the CEQ answered.

Suggested approach to answer CEQ no. 23

### a. Intervention logic

All RDP measures/sub-measures which contribute to fostering innovation through the three pathways in rural areas as identified in the screening of their innovation potential (see <a href="Chapter 2.2">Chapter 2.2</a>) should be taken into consideration as part of the intervention logic linked to the CEQ no. 23. This goes beyond the measures which are primarily considered as innovation fostering measures – M1, M2 and M16 and might also cover other investment, marketing and area-based measures whose implementation might support innovation (e.g. through innovation-related project selection criteria). Operations implemented under these measures and sub-measures are taken into consideration for counting expenditures to R&D and innovation and the assessment of the headline target or its proxy (GERD) and additional indicators are employed for answering CEQ no. 23 (as identified in the screening of the innovation potential – see <a href="Chapter 2.2">Chapter 2.2</a>).

<sup>71</sup> http://www.oecd.org/publications/frascati-manual-2015-9789264239012-en.htm

<sup>&</sup>lt;sup>72</sup> Decision No. 1608/2003/EC of the European Parliament and of the Council, Regulation (EC) No. 753/2004 and Regulation (EU) No. 995/2012

<sup>&</sup>lt;sup>†3</sup> http://ec.europa.eu/eurostat/statistics-explained/index.php/Glossary:Gross\_domestic\_expenditure\_on\_R\_%26\_D\_(GERD)

This is a study on the ex ante evaluations, which (among others) examined the relevance of the RDPs for reaching the EU2020 targets, showed that the contribution of the RDPs to the 3% headline target is assessed as very low. Expenditures will only have a minor contribution to the R&D expenditure in several Länder.

### b. Evaluation elements linked to CEQ no. 23

The Working Paper, Common Evaluation Questions for RDPs 2014-2020, suggests two judgment criteria (investments in R&D has increased and innovation has been fostered), two common CMES indicators (T1 - expenditures related to articles 14 and 35 and T2 - Total number of cooperation operations supported under the cooperation measure) and one additional indicator (RDP expenditure in R&D as a % of the GDP) to answer CEQ no. 23. However, these elements cannot fully capture the RDP contributions towards the headline target.

Therefore, these guidelines propose additional evaluation elements for answering CEQ no. 23 (see Table 7).

Table 7. Judgment criteria, indicators and data required to answer CEQ no. 23

Judgment criteria	Indicators	Data needs	Data sources			
Common evaluation elements (CMES and proposed in Working document "Common evaluation questions 2014-2020")						
Investment for R&D and innovation has increased <sup>75</sup> . Innovation has been fostered.	T1: % of expenditure under Art. 14,15 and 35 of Regulation (EU) No 1305/2013 in relation to the total expenditure for the RDP.  T2: Total number of cooperation projects operations supported under the cooperation measure (Art. 35 of Regulation (EU) No 1305/2013 (groups, networks clusters, pilot projects).  Additional indicator:  RDP expenditure in R&D as a % of the GDP (GERD "rural development").	Data on the expenditures on R&D and innovation of the RDP.  Data on total RDP expenditures.  Data on R&D and innovation expenditures for MS/region.  Data on GDP for Member State/region.	RDP monitoring system.  Eurostat.  National/regional statistics.			
Additional evaluation elements (optional)						
Investment for R&D and innovation & innovation has increased.	Additional indicators:  Gross domestic expenditure on R&D (GERD) relative to gross domestic product (GDP).  RDP expenditures in R&D and innovation as a % of the total RDP expenditures.  RDP expenditures in R&D and innovation as a % of the gross domestic R&D & innovation expenditures.	Data on R&D and innovation in accordance to Frascati Manual.  Data on expenditures into R&D and innovation of the RDP broken down by type of beneficiary.  Data on total RDP expenditures  Data on R&D and innovation expenditures for Member State/region.  Data on GDP for Member State/region.	RDP monitoring system.  Eurostat.  National/regional statistics.			

<sup>75</sup> Working Paper Common evaluation questions for RDPs 2014-2020, <a href="http://enrd.ec.europa.eu/evaluation/publications/working-document-common-evaluation-questions-rural-development-programmes">http://enrd.ec.europa.eu/evaluation/publications/working-document-common-evaluation-questions-rural-development-programmes</a> en

### c. Proposed evaluation methodology

The headline target indicator is collected by Eurostat and national statistics and refers to the gross domestic expenditure on R&D (GERD), as a proxy to the GDP, known as R&D intensity. The statistics compile R&D expenditures for four sectors: 1.) the business enterprise sector, 2.) the government sector, 3) the higher education sector, and 4) the private non-profit sector. More detailed information on the calculation of each indicators is proposed in Table 8.

- Data for common indicators T1 and T2 is collected directly from the RDP monitoring system (operations database).
- The headline target "Gross domestic expenditure on R&D (GERD) relative to gross domestic product (GDP)", can be collected at NUTS 1 and NUTS 2 level from Eurostat.
- The additional indicator "RDP expenditure in R&D as a % of the GDP" (called in the following GERD "rural development" GERDRD) shows the expenditure of the RDP on R&D via relevant measures/sub-measures in relation to the GDP:
  - Data on the GDP is collected through national statistics and is also available from EU sources (Eurostat).
  - Data on the RDP's expenditures on research, development and innovation can be obtained from the RDP's monitoring system by counting the expenditures linked to the operations with innovation potential (as identified during the screening of the innovation potential see <a href="Chapter 2.2">Chapter 2.2</a>) and split by beneficiaries attributed to sectors as provided by the Frascati Manual.
- The additional indicator "RDP expenditure in R&D and innovation as a % of the total RDP expenditures" shows the size of the RDP's budget dedicated to supporting research, development and innovation. Data for this indicator can also be obtained from the RDP monitoring system, if the operations database is adapted to track also the information on the projects with a high innovation potential as identified from the screening prior to the evaluation.
- The additional indicator "RDP expenditures in R&D and innovation as a % of the gross domestic R&D and innovation expenditures" shows the relation between the RDP investments into research, development and innovation and the gross domestic expenditures into R&D. Data can be obtained from the RDP monitoring system, from the national and regional statistics as well as from Eurostat.

Figures for indicators can be calculated *ex ante* (planned contributions) and at the time of the evaluation for the AIR submitted in 2019 and *ex post* evaluation (actual contributions at the time of the evaluation) which can then allow for comparing planned with actual contributions. The example in Table 8 shows the planned and actual values of common and additional indicators:

Table 8. Example of planned and actual values of common and additional indicators

	Indicators	Planned	Actual	Calc.
	Total RDP expenditures (aggregated).	800.000.000	790.000.000	а
RDP entry data (operations database)	RDP expenditures under Art. 14,15 and 35 of Regulation (EU) No 1305/2013 (aggregated).	40.000.000	30.000.000	b
	RDP expenditures for all the RDP measures / submeasures investing in R&D and with ability to foster innovation (aggregated).	120.000.000	140.000.000	С
Context data	National/regional GDP (by all sectors) (yearly).	200.000.000.000	200.000.000.000	d
Context data	Gross domestic expenditures on R&D (GERD) by all sectors (yearly).	3.000.000.000	3.000.000.000	е
Values of common target indicators	T1: % of expenditure under Art. 14,15 and 35 of Regulation (EU) No 1305/2013 in relation to the total expenditure for the RDP.	5%	4%	f= b*100/a
	T2: Total number of cooperation projects operations supported under the cooperation measure (Art. 35 of Regulation (EU) No 1305/2013 (groups, networks clusters, pilot projects).	30	50	g
	Gross domestic expenditure on R&D (GERD) relative to gross domestic product (GDP).	1,5%	1,5%	h= e*100/d
Values of additional result indicators	RDP expenditure in R&D as a % of the GDP (GERD "rural development").	0,06%	0,07%	i= c*100/d
	RDP expenditures in R&D and innovation as a % of the total RDP expenditures.	15%	17,72%	j= c*100/a
	RDP expenditures in R&D and innovation as a % of the gross domestic R&D and innovation expenditures.	4,00% 4,6		k= c*100/e

### d. Risks and solutions

Risk	Solution
Wrong estimation of the potential of various RDP measures to foster innovation in rural areas, mainly those outside typical "innovation measures" like M1. M2, M16, M19 or M20, which might cause errors in the calculation of RDP expenditures linked to R&D and innovation.	This risk can be partly eliminated if there is a thorough assessment of the RDP's innovation potential conducted before the evaluation starts.  Marking RDP measures which might show high innovation potential, facilitates the assessment of their actual ability to do so. For example, if evaluators know which measures may have a strong effect on generating new ideas, they will check the "innovative performance" of these measures at the time of the evaluation and take their expenditures into consideration when calculating the respective indicators.
Lack of data availability and quality (in the required format) on R&D and innovation from the national and regional statistics. In the case there is a lack of high	To avoid this risk, it is important that evaluators have the necessary capacity and tools (e.g. coefficients) to

Risk	Solution
quality data, the risk is that evaluators might not use	estimate statistical values at the national/regional
adequate techniques for the estimation of	levels.
expenditures invested in R&D and innovation. This	
may compromise obtaining realistic values of	
proposed additional indicators.	

### e. Conclusions and recommendations

Conclusions and recommendations linked to CEQ no. 23 should consider the following:

- Level of investments in R&D and innovation as implemented through the RDP in relation to the overall situation in investing into R&D and innovation in the Member States/region.
- Potential of individual measures to invest in R&D and innovation in agriculture, food processing, forestry and rural areas.

### **Further reading**



EC (2010) EUROPE 2020 - A strategy for smart, sustainable and inclusive growth

EUROSTAT (2017) Smarter, greener, more inclusive? Indicators to support the Europe 2020 Strategy

Dietz S. (2017) "<u>ELER im Kontext der Strategie "Europa 2020</u>"; presentation at the MEN-D Annual Event 2017

MEN-D (2015) Monitoring und Evaluierung der ELER-Förderperiode 2014 – 2020: Auswertung der Methoden und Erfahrungen der Ex-Ante Bewertung.

MEN-D (2017) <u>EAFRD</u> in the context of the Europe 2020 Strategy - evaluation of contributions and future <u>challenges</u>.

# 2.4.5 CEQ no. 30: "To what extent have the RDP interventions contributed to fostering innovation?"

### **Understanding the CEQ**

CEQ no. 30 relates to the process of fostering innovation. This makes the question conceptually very broad, given that **innovation emerges from the interactions of actors in the innovation system.** The assessment of the processes needs time and therefore the question can be answered only after the RDP's intervention have made substantial progress (in the AIR submitted in 2019), or has finished (*ex post* evaluation).

The EU is interested in the RDP's contribution to innovation at scale, that is to say, successful innovation processes that have led to relatively large changes (e.g. a relatively large number of farmers adopting a new technology). The starting point for answering CEQ no. 30, is therefore to identify large changes to which the RDP claims it has contributed, and where at least some of the contribution was through fostering innovation. These large changes can be identified through the assessment of the impact indicators and the collection of further information (e.g. through desk reviews and interviews with

stakeholders following the outcomes of the identification of the innovation potential, see Chapter 2.2). Findings will also be used in answering CEQs other than no. 30 (CEQs no. 24 to 29).

An *a priori* assumption from Chapter 1.1 is that the RDP measures/sub-measures contribute to **fostering innovation** through three interlinked pathways (see <u>Figure 1</u>). The value of the three pathways is that they help the evaluator unpack and better understand the innovation process. Hence the guidelines propose three sub-questions of CEQ no. 30 corresponding to the pathways:

- To what extent has the RDP fostered innovation through nurturing innovative potential? (Pathway
   1)
- To what extent has the RDP fostered innovation by building the capacity to innovate? (Pathway 2)
- To what extent has the RDP fostered innovation by building an enabling environment for innovation? (Pathway 3)

Interactions between pathways is also important. The process of nurturing innovative potential collaboratively (e.g. developing and introducing a new technology) builds the capacity to innovate of the individuals and organisations concerned, as well as the innovation system itself. Interaction between pathways should be addressed when answering the three sub-questions and the CEQ no. 30.

### **Specific Challenges**

- **Developing additional evaluation elements** to answer the CEQ no. 30 (judgment criteria and indicators, both qualitative and quantitative).
- **Applying evaluation methods** which would allow for the attribution of the observed changes in all three pathways of the innovation system in rural areas to the RDP's interventions.
- Assessing the changes happened due to the innovations supported by the RDP.

Suggested approach to answer CEQ no. 30

### a. Intervention logic

The RDP's approach towards innovation is established during the programme design<sup>76</sup>. In screening the innovation potential of the RDP measures/sub-measures during the preparation stage of the evaluation, all measures/sub-measures (not only M1, M2, M16, M19 and TA) are screened and tested for their potential to nurture ideas, build capacities and create an enabling environment. Consequently, all of the RDP measures and sub-measures which have shown significant innovation potential are expected to be part of the RDP's innovation-related intervention logic that guides the RDP's implementation towards innovation. The evaluator uses this logic as an input into building the case for how the RDP contributed to innovation (see Figure 11).

<sup>76</sup> Art. 8.1 (c)(v) of Regulation (EU) No 1305/2013 and Annex I, Part I, point 5 (c) and (e) of Regulation (EU) No 808/2014

FA 2A FA 3A FA 4A FA 5B FA 6A FA 6B

M4 M4 M4 M4 M6 M19

M1 M16 M2 M2 M2 M2

Nurruring Building a enabling ideas capacities enabling ideas capacities and ca

Figure 11. Example of intervention logic for CEQ no. 30

Source: European Evaluation Helpdesk for Rural Development, 2017

In this example, the measures (circles) under the FAs (rectangles) are expected to foster innovation alone or in combination with other measures in different ways (three Pathways depicted as pictogrammes). For instance, measures M16 and M2 programmed under the FA 3A – integration of primary producers in the food chain and under the FA 5A – water efficiency, are expected to jointly foster innovation through all three pathways. In another case – FA 5B both measures in combination with M4 are expected to foster innovation through building capacities in a collaborative manner.

Measures with innovation potential are expected to generate outputs, which lead to results in fostering innovation through the three pathways and finally they impact the achievement of policy objectives.

Given the complex and emergent nature of innovation, it is assumed that there will be an imperfect match between predicted innovation potential and the RDP interventions that made a difference. Hence, at the time of the evaluation, the evaluator's task is to compare the predicted RDP's innovation potential with the actual contributions to change.

### b. Evaluation elements

The Working Paper, Common Evaluation Questions for RDPs 2014-2020, suggests one judgment criteria (innovation in rural areas and sectors has been fostered) and one common indicator (T1 - expenditures related to Art. 14, 15 and 35). It also recommends, to collect additional quantitative and qualitative information on innovation to answer CEQ no. 30. However, these elements cannot fully capture the RDP's contributions towards fostering innovations.

Therefore, these guidelines propose one to consider the use of additional evaluation elements to answer CEQ no. 30 (see <u>Table 9</u>). In the case of CEQ no. 30, the evaluation elements are linked to the three sub-questions corresponding to the three pathways of the innovation process. The proposed judgment criteria are linked to the characteristics of each pathway. This allows one to see if the pathway

has been followed through the implementation of RDP measures as identified during the screening of the innovation potential.

Apart from the common indicators, the suggested elements are not binding and stakeholders in the Member States may develop their own judgment criteria and additional indicators.

Table 9. Evaluation elements linked to CEQ no. 30

Evaluation elements (sub-questions, judgment criteria and indicators) provided in addition to those copied from the WP: Common Evaluation Questions for RDPs 2014-2020 are written in "italics".

Sub-questions	Judgment criteria	Result indicators	Data and information needs	Data sources
To what extent has the RDP fostered innovation through nurturing innovative potential (Pathway 1)?	Additional JC: Adoption of innovative ideas, processes, models and/or technologies introduced by the RDP.	T1: % of expenditure under Art. 14,15 and 35 of Regulation (EU) No 1305/2013 in relation to the total expenditure for the RDP.	Data on expenditures for operations implemented under M1, M2 and M16.	RDP monitoring system.
		Number of supported innovative actions implemented and disseminated by EIP OGs .	Data on innovative actions implemented by the EIP OP.	RDP monitoring system and interviews.
		Additional result indicator: Level of adoption of new ideas, processes, models and/or technologies introduced by the stakeholders.	Data and information on generated innovative ideas, models, technologies.	RDP monitoring system and survey, interviews.
To what extent has the RDP fostered innovation by building the capacity to innovate (Pathway 2)?	Additional JC: The RDP increased functional linkages between different types of actors.	Additional result indicator: Number of formal partnerships brokered by the RDP as linked to the changes within the rural development priorities to which the RDP has contributed.	Information on formal relationships.	Interviews and focus groups.
		% increase in number and types of partners involved in cooperation projects (WP on CEQ for RDP 2014-2020).	Data on number and type of partners in cooperation projects.	RDP monitoring system.
	Additional JC: Learning platforms and other types of institutional space that allows for sharing, reflection and learning have been	Additional result indicator: Number and quality of platforms and "spaces" supporting innovation that the RDP has set up or strengthened, e.g. communities of practice, innovation platforms, events held to reflection and learning.	Information on platforms set up by RDP.	Interviews and focus groups.

Sub-questions	Judgment criteria	Result indicators	Data and information needs	Data sources
	created and strengthened.			
	Additional JC: Flow of information between diverse actors in the innovation system in which the change happened has improved.	Additional result indicator: Decrease in the average network path length and in network diversity (Social Network Analysis measures).	Information on networks.	Information from the SNA.
To what extent has the RDP fostered innovation by building an enabling environment for innovation (pathway 3)?	Additional JC: The RDP has informed policies that support the changes to which the RDP has contributed.	Additional result indicator: Number and type of policies that the RDP has influenced at the level of participating organisations and the broader enabling environment.	Information on policies.	Interviews and focus groups, (e.g. outcome harvesting).
	Additional JC: The RDP has enabled opportunities for training and exchange of innovative practices.	Additional result indicator: Number of trainings and events to exchange innovative practices and their share in the total number of trainings/events supported by the RDP.	Information on trainings and events.	RDP monitoring system.
	Additional JC: The RDP has enabled interactions among actors (national/cross border) to foster innovations.	Additional result indicator: Number of events focused on the establishment of contacts between innovation actors supported by the RDP.	Information on new technologies.	
	Additional JC: The RDP has supported the new technologies in rural areas.	Additional result indicator: Number of new technologies in rural areas supported by the RDP, broken down by type.		

### c. Proposed evaluation methodology

The proposed evaluation method to answer CEQ no. 30 is the **case study method**. The following steps are recommended for evaluators to conduct the assessment:

• STEP 1 - Identify the significant change or changes to which the RDP can claim it has contributed through fostering innovation through one or more of the three pathways. This can be done with reference to the answers to CEQs no. 22 to 29 (CEQ related to EU 2020 and CAP overall objectives), by interviewing staff and/or a desk review of project documentation. For example, the RDP may claim that it has contributed to a significant change of farm profitability by developing a new piece of farm machinery that was subsequently widely adopted and used by farmers. The search for significant changes should consider predictions made about likely adoption when the innovation potential was established at the beginning of the programme.



### A thematic network on High Nature Value Farming.

As part of the Horizon 2020 research project: "HNV link", a team of researchers has developed an assessment framework in order to analyse the baseline situation of HNV areas to which innovation can potentially contribute. This baseline assessment includes the analysis of several attributes related to:

- agro-ecosystem (soil, climate, and relief conditions);
- farming systems and their dynamic in agrarian systems;
- the rural context and wider driving forces (policies, technologies, societal changes);
- cross-cutting issues (actors and social organisation).

Different methods were combined to build a baseline situation: 1.) agro-ecosystem assessment 2.) agrarian and farming system analysis 3.) rural analysis 4.) actor analysis. The methodology helps to build a counterfactual situation to assess both the process and effects of innovations taking place in HNV areas. An example of the application of this methodology can be found here: <a href="http://www.hnvlink.eu/download/D1.3BAcomplete.pdf">http://www.hnvlink.eu/download/D1.3BAcomplete.pdf</a>

- STEP 2 Gather information about the RDP's performance against the judgment criteria and indicators (as proposed in Table 9 of evaluation elements above) for the three subquestions relating to the extent that the RDP has impacted the three pathways.
  - Pathway 1 has the judgment criterion "adoption of innovative ideas, processes, models and/or technologies introduced by the RDP". It can be measured with common and

Adoption of innovative ideas, processes, models and/or technologies introduced by the RDP can be evaluated using **surveys** that measure the level and extent of adoption of novelties and establish the source of novelty. The surveys should:

- include those who adopted the novelty, but also those who did not adopt it and should strive
  to: a) understand reasons for non-adoption and b) to identify whether alternative ways exist of
  tackling the issue that the novelty addresses;
- be enumerated among adopters and non-adopters of a new idea where adoption is known to have taken place as well as in areas that were identified as promising during the assessment of innovation potential (see <a href="Chapter 2.2">Chapter 2.2</a>).

additional indicators as proposed in Table 9. For the common indicators, the data can be collected via the operations database. For the additional indicators, data and information can be collected via a survey organised and conducted by the evaluator (see the example below)

- Pathway 2 has three judgment criteria, which are accompanied with result indicators:
  - The first is increased collaboration and sharing between actors involved in bringing about the change to which the RDP has contributed. This involves identifying agreements among partners that the RDP has brokered with the help of the additional result indicators: "Number of formal partnerships brokered by the RDP as linked to the changes within the rural development priorities to which the RDP has contributed" and "% increase in number and types of partners involved in cooperation projects" (see Working Paper CEQs for RDPs 2014-2020). Data and information for the first additional indicator can be collected by evaluators during the evaluation via interviews and focus groups with partners involved in established partnerships. For the second additional indicator the data can be collected directly from the operations database.
  - The second relates to the RDP's contribution to increased learning, reflection and sharing. This involves identifying platforms (e.g. community of practice), groups and other forms of institutional "space" (e.g. reviews after actions), both virtual and face to face that allow participants in the innovation process to share experiences, reflect on their meaning and value, learn and take subsequent actions. The additional result indicator: "Number and quality of platforms and "spaces" supporting innovation that the RDP has set up or strengthened", is proposed to be used to measure the success as specified with this judgment criteria. Quantitative and qualitative information shall be collected by the evaluators during the evaluation (e.g. using interviews of focus groups with participants of above platforms/spaces).
  - The third relates to improvements in the flow of information and diversity of types of organisation in the innovation system in which the change took place. Evidence can be collected with the additional result indicator: "Decrease in average network path length and in network diversity". It can be measured by Social Network Analysis (SNA) to be conducted by the evaluator at the time of the evaluation. **Social Network Analysis**<sup>77</sup> is the method to be used to collect evidence for related

indicators at two points of time, calculating changes in average path length and numbers of different types of actors involved. Changes then need to be related back to the RDP's intervention through key informant *interviews* of knowledgeable but independent people who can verify or discount causal claims. Ideally, the baseline would have been established as part of estimating innovation potential at the beginning of the RDP.

Outcome harvesting is a method that asks RDP change agents (those involved in RDP policy engagement) to identify policy changes to which the RDP has contributed and then asks knowledgeable but independent people to validate these claims.

<sup>77</sup> http://www.analytictech.com/networks/whatis.htm

- **Pathway 3** has several judgment criteria linked to various types of enabling environments as described in Chapter 1.1:
  - The first one relates to the degree to which the RDP has informed policies that supported the change to which the RDP has contributed. This requires identifying the policies that the RDP can claim to have influenced followed by an evidencing process to establish the legitimacy of these claims. The evidence can be collected with the additional result indicator "number and type of policies that the RDP has influenced at the level of participating organisations and the broader enabling environment" during the evaluation. Outcome harvesting<sup>78</sup> is an approach well matched for evaluating RDP policy engagement.
  - The second judgment criterion relates to the opportunities for training and exchange of innovative practices as supported by the RDP. The proposed additional result indicator to collect evidence is "number of trainings and events organised for the exchange of innovative practices and their share on the total number of trainings/events supported by RDP". Data for the indicator can be collected via the operations database after linking the information on training activities and events to innovation.
  - The third judgment criterion is linked to the enabling interactions among innovation actors. To measure success linked to this judgment criterion, it is recommended to use the additional result indicator: "number of events organised focused on the establishment of contacts between innovation actors supported by RDP". Data for this indicator can be collected via the operations database (e.g. by adding to the monitoring of events information on innovation actors supported by the RDP).
  - The fourth judgment criterion relates to the RDP as a creator of an enabling environment for introducing new technologies. It can be measured with the additional result indicator "number of new technologies in rural areas supported by the RDP broken down by type". The information needed for this indicator can be collected from the operations database, if adapted accordingly.

<sup>78</sup> Wilson-Grau, 2015

STEP 3 - Develop a causal timeline and narrative describing how the change(s) identified in Step 1 came about. The narrative will assume *a priori* that change(s) came about through one or more of the three pathways and their interactions (see Figure 1). The timeline and narrative should include all the key happenings and processes that led to the change, not just those that resulted from RDP's activity. This approach is built on a case study methodology<sup>79</sup>. Specific methods that may be of use are process tracing (establishing a theoretical path from the outcome to its causes by considering several alternatives)<sup>80</sup> and the construction of innovation histories (method for recording and reflecting on an innovation process)<sup>81</sup>. Data will come from the previous steps, from reviewing RDP documentation and/or key informant interviews with programme staff and stakeholders.



### Techniques for developing the narrative and rating the results

In developing the narrative, the evaluator may employ several **techniques to triangulate and substantiate the case.** These techniques include: contribution analysis in which the evaluator identifies a necessary and sufficient causal package to explain the change<sup>82</sup>; establishing and discounting alternative causal explanations<sup>83</sup> and/or identifying and substantiating crucial parts of the chain of evidence assembled to make the case for RDP contribution<sup>84</sup>.

The extent of RDP contribution should be judged on a Likert scale<sup>85</sup> such as None, Little, Some, Major Contributing Factor, Only Contributing Factor. The evaluator should also rate the level of confidence he or she has in the findings on a similar five-point scale. The rating given will need to be justified.

• STEP 4 - Compare the innovation potential identified prior to the evaluation with the contribution made by the RDP. Our working hypothesis is that there will be differences that help those involved better understand innovation as an emergent and unpredictable process that nevertheless can be nurtured if learning and adaptive management mechanisms are in place in the RDP.

### d. Risks and solutions

The main risk is that the case study evaluation described above is not carried out to a sufficiently high standard to be persuasive in its conclusions.

On the other hand, if a case study approach is not used then the risk is to evaluate CEQ no. 30 only against the judgment criteria and indicators which will not allow an evaluation of the extent of the RDP's contributions, nor help those involved learn how change comes about in complex systems.

<sup>&</sup>lt;sup>79</sup> A case study is a method for learning about a complex instance, based on a comprehensive understanding of that instance obtained by extensive description and analysis of that instance taken as a whole and in its context" (GAO, 1990, p. 15).
<sup>80</sup> Process tracing is a case-based approach to causal inference which focuses on the use of clues within a case (causal-process observations, CPOs) to adjudicate between alternative possible explanations, read more <a href="http://www.betterevaluation.org/en/evaluation-options/processtracing">http://www.betterevaluation.org/en/evaluation-options/processtracing</a>, also read Collier 2011, see the literature

http://www.betterevaluation.org/en/evaluation-options/processtracing, also read Collier 2011, see the literature

81 "Preparing an "innovation history" is a method for recording and reflecting on an innovation process. People who have been involved in the innovation jointly construct a detailed written account (sometimes referred to as a "learning history") based on their recollections and on available documents." Read more

http://www.betterevaluation.org/en/resources/tools/innovation\_history/innovation\_timeline, as well read Douthwaite and Ashby, 2005, see the literature

<sup>82</sup> Mayne, 2012, see the literature

<sup>83</sup> Hilton, 1996, see the literature.

<sup>&</sup>lt;sup>84</sup> Pawson et al., 2005, see the literature.

<sup>85</sup> http://www.socialresearchmethods.net/kb/scallik.php, and Allen and Seaman (2007)

### e. Conclusions and recommendations

Conclusions and recommendations related to CEQ no. 30 should consider the following:

- Specific measures (and their combination) which were most effective and efficient to foster innovation in rural areas through the RDP.
- Ways in which the RDP fostered innovations as linked to the three pathways.
- Policy objectives to which the fostered innovation has contributed most significantly.
- Stakeholders and RDP beneficiaries which were the most effective innovation carriers.

### **Further reading**



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GAO (General Accounts Office) (1987) <u>Case study evaluation</u>. <u>Program Evaluation and Methodology</u>. Division, Transfer Paper 9. Washington DC: GAO.

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Mayne, J., 2012. Contribution analysis: Coming of age? Evaluation 18.3 (2012): 270-280.

Pawson, R., Greenhalgh, T., Harvey, G. and Walshe, K., 2005. <u>Realist review—a new method of systematic review designed for complex policy interventions.</u> Journal of health services research & policy, 10 (suppl 1), pp.21-34.

Wilson-Grau, R. (2015) *Outcome Harvesting*. Better Evaluation. Retrieved.

from http://betterevaluation.org/plan/approach/outcome\_harvesting.

### 3. ANNEXES

### 3.1 Glossary

### Cluster

A grouping of independent undertakings, including start-ups, small, medium and large undertakings as well as advisory bodies and / or research organisations — designed to stimulate economic / innovative activity by promoting intensive interactions, the sharing of facilities and the exchange of knowledge and expertise, as well as contributing effectively to knowledge transfer, networking and information dissemination among the undertakings in the cluster.

<u>Reference</u>: Guidance document "Co-operation" measure, November 2014:

http://ec.europa.eu/eip/agriculture/sites/agrieip/files/16 measure fiche art 35 co-operation.pdf

### **Enabling outcome**

Outcome linked to the three innovation pathways, such as: 1.) identifying and nurturing potential innovative ideas; 2.) building capacity to innovate; and 3.) build enabling environment for innovation. It can be expressed as changes to rate and quality of emerging innovative ideas; changes to capacity to innovate; and, changes to the enabling environment.

Reference: TWG-4.

### **European Innovation Partnerhsip**

As part of the Innovation Union flagship initiative, it is an approach to EU research and innovation. It is challenge-driven, acts across the whole research and innovation chain, and streamlines, simplifies and better coordinates existing instruments and initiatives.

Reference: Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions Europe 2020. Flagship Initiative Innovation Union (2010) <a href="https://ec.europa.eu/research/innovation-union/pdf/innovation-union-communication-en.pdf">https://ec.europa.eu/research/innovation-union/pdf/innovation-union-communication-en.pdf</a>

### European Innovation Partnership "Agricultural Productivity and Sustainability" (EIP AGRI)

Launched by the European Commission in 2012, EIP AGRI is the European Innovation Partnership focusing on the agricultural and forestry sectors. EIP AGRI brings together innovation actors and creates synergies between existing policies. Its overarching aim is

to foster competitiveness and sustainability in these sectors, thereby contribute to: ensuring a steady supply of food, feed and biomaterials, and the sustainable management of the essential natural resources on which farming and forestry depend by working in harmony with the environment.

<u>Reference</u>: Evaluation study of the implementation of the European Innovation Partnership for Agricultural Productivity and Sustainability

https://ec.europa.eu/agriculture/external-studies/2016eip\_en

Communication from the Commission to the European Parliament and the Council on the European Innovation Partnership 'Agricultural Productivity and Sustainability' (2012) <a href="https://ec.europa.eu/eip/agriculture/sites/agrieip/files/communication\_on\_eip-en.pdf">https://ec.europa.eu/eip/agriculture/sites/agrieip/files/communication\_on\_eip-en.pdf</a>

### **Innovation capacity**

"The continuing ability to combine and put into use different types of knowledge".

Reference: Chuluunbaatar, D. and LeGrand, S., 2015. Enabling the capacity to innovate with a system-wide assessment process. Occasional Papers in Innovation in Family Farming. FAO, Rome. <a href="http://www.fao.org/3/a-i5097e.pdf">http://www.fao.org/3/a-i5097e.pdf</a>

### Innovation outcome

Innovation outcomes are resulting from the enabling outcomes (e.g. new practices, increased income, adoption of more sustainable farming practices).

Reference: TWG-4, page 11.

### **Innovation support services**

Innovation support services work using models that are adapted to local conditions and could play an important role in bringing the right people into projects, connecting farmers and advisers with researchers and helping to identify funding.

<u>Reference</u>: EIP-AGRI brochure on innovation support services:

https://ec.europa.eu/eip/agriculture/en/content/innovation-support-services.

### Innovation system

"The groups of organisations and individuals involved in the generation, diffusion and adaptation, and use of knowledge of socioeconomic significance, and the institutional context that governs the way these interactions and processes take place."

Reference: Hall, A., S. Rasheed, N. Clark, and B. Yoganand. 2003. From measuring impact to learning

institutional lessons: an innovation system's perspective on improving the management of international agricultural research. Agricultural Systems 78: 213-241.

### **Innovation pathway**

A process through which RDP activities produces outputs, results and impacts which contribute to the achievement of RDP objectives, influencing and influenced by the innovation system in which it happens.

Reference: TWG-4, page 5.

### Interactive innovation

In interactive (system) innovation, building blocks for innovations are expected to come from science, but also from practice and intermediaries, including farmers, advisory services, NGOs, researchers, etc. as actors in a bottom-up process. Interactive innovation includes existing (sometimes tacit) knowledge which is not always purely scientific.

<u>Reference</u>: Guidelines on programming for innovation and the implementation of the EIP for agricultural productivity and sustainability:

http://ec.europa.eu/eip/agriculture/sites/agri-eip/files/eip-guidelines-july-2014 en.pdf.

### **Operational groups**

Groups of people (such as farmers, researchers, advisers, etc.) who work together on a practical innovation project with concrete objectives.

<u>Reference</u>: EIP-AGRI brochure on innovation support services:

https://ec.europa.eu/eip/agriculture/en/content/innovationsupport-services

### **RDP Innovation potential**

RDP innovation potential is the extent to which the specific RDP approach designed towards innovation can foster innovation and achieve policy objectives in rural areas within a given innovation system or context.

Reference: TWG-4.

### **Social Innovation**

Social innovation can be defined as the development and implementation of new ideas (products, services and models) to meet social needs and create new social relationships or collaborations.

Reference: DG REGIO, DG EMPL, DG AGRI, etc. (2013) Guide to Social Innovation.

### Thematic and analytical exchanges

Exchanges can be promoted by NRNs in different forms. The most common form of thematic exchanges developed by NRNs, has been permanent or *ad hoc* Thematic Working Groups (TWGs). NRN TWGs bring together diverse stakeholders to discuss, analyse and share information on common topics, often resulting in recommendations related to RDP implementation and programming.

<u>Reference</u>: NRN guidebook: http://enrd.ec.europa.eu/enrd-

static/app\_templates/enrd\_assets/pdf/guidebook/nrn\_hand

book\_webversion.pdf

# 3.2 Identifying the RDP innovation potential: step by step

Steps	Key question to be answered	Where in the RDP?	Examples	Risks linked to the step	Solutions
Step 1: Identify linkages between innovation-related needs and the measure/sub- measure	What are the innovation-related needs identified in the needs assessment in relation to the measure/sub-measure?  How is the measure/sub-measure addressing these needs, taking into consideration the three pathways?	Section 4 – SWOT and needs analysis Section 5 – Description of the strategy Section 8 – Description of measures and submeasures	Need to improve the R+D+I system; Need to improve the transfer of knowledge mechanisms; Need to promote the innovation culture amongst actors in the agri-food sector.	Innovation-related needs have not been clearly articulated in the SWOT and needs assessment.	Review the SWOT and needs assessment from the point of innovation-related needs.
Step 2: Identify innovation-related parts of the measure/sub-measure's objectives	To what extent do the measure/sub- measure objectives address innovation- related needs?  How is (are) the objective(s) formulated in relation to innovation?	Section 5 – Description of the strategy Section 8 – Description of measures and sub- measures	Promote new technologies in irrigation systems; Introduce new knowledge in the field of crop protection and processing; Improve the economic results of rural enterprises through innovation.	Innovation-related objectives are not evident in the general description of the measure and sub-measures.	Review all the sub-measures and their respective objectives to identify any innovation- related objectives.
Step 3: Identify innovation-related selection criteria of the measure/submeasure	To what extent do the project selection criteria of the measure/sub-measure promote the fostering of innovation taking into consideration the three pathways?  Which concrete selection criteria promote projects which foster innovation?	Section 8 – Description of measures and sub- measures Selection criteria developed during implementation (source: programme website, MA)	Prioritisation of actors with experience in innovation; Prioritisation of operations that link research and practice; Emphasis on the composition of partnerships (in cooperation operations).	Description of measures does not specify the innovation-related project selection criteria, or only applies a general formulation, e.g. "selected projects is innovative".	Propose operational criteria, which would specify under which condition is the project selected as innovative.
Step 4: Identify innovation stakeholders in the description of the measure/ submeasure	Which beneficiaries are envisaged to foster innovation through the three pathways?  Which other innovation stakeholders are involved in the implementation of the measure?	Section 8 – Description of measures and sub-measures	R&D centres Technology institutes Innovation departments of public institutions	Innovation-related stakeholders may not be defined in the design of the measure.	The evaluator should review if innovation-related stakeholders have been involved in the implementation of the measure and submeasures.
Step 5: Identify innovation-related actions, costs and budgets in the description of measure/submeasure	Which eligible actions and costs will support innovation? What is the budget of actions, costs to support innovation?	Section 8 – Description of measures and submeasures Delivery systems developed during implementation (sources: programme website, MA) Section 10 Financial plan – budget per measure	Use of innovation brokers for the set-up of operational groups; Establishment of steering groups to monitor innovation; Administrative issues in innovation-promoting interventions; Awareness raising events on innovation.	Lack of any evidence on innovation-related instruments and support.	Analyse additional information on the implementation of the measure and sub-measures provided by AIRs or the MA.

Guidelines: Evaluation of Innovation in Rural Development Programmes

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