Rural Evaluation NEWS

THE NEWSLETTER OF THE EUROPEAN EVALUATION HELPDESK FOR RURAL DEVELOPMENT

⊕ Assessing RDP Effects on Achieving Balanced Territorial Development of Rural Economies and Communities

The Evaluation Helpdesk has launched the Thematic Working Group 'Ex post evaluation of RDPs 2014-2020: Learning from practice' (TWG 8) in the beginning of this year. This thematic working group aims to address the challenges in the assessment of RDP achievements and impacts identified in the AIR submitted in 2019 and to support Member States in preparing for the ex post evaluation of the RDPs 2014-2020.

Working Package 1, of the thematic working group analysed the emerging evaluation issues identified in relation to the assessment of RDP's effects on achieving balanced territorial development of rural economies and communities. The issues have been collected during the analysis of the evaluation sections of the AIRs submitted in 2019, the feedback from evaluation stakeholders in the EvaluationWORKS! events and complementary interviews with evaluation stakeholders in the Member States. Four topics were selected:

1. share of the rural population benefiting from new/improved services/infrastructures;
2. jobs created in rural areas;
3. reporting on net contributions of socio-economic impact indicators;
4. quantification of LEADER/CLLD contributions and measuring their secondary effects.

The issues identified in the four topics are generally related to the availability and quality of data, double counting, different interpretations of methodologies among Member States, difficulties in aggregating data at the EU and in some cases at the national level.

This article presents the main identified issues illustrated by practical examples and recommendations specifically focusing on the topics 'Share of the rural population benefiting from new/improved services/infrastructures' and 'Jobs created in rural areas'.

Share of the rural population benefiting from new/improved services/infrastructures

This topic covers, main issues and solutions for the calculation of the common result/target indicators R23/T22 (Focus Area 6B) 'Percentage of the rural population benefiting from improved services/infrastructures' and R25/T24 (Focus Area 6C) 'Percentage of the rural population benefiting from new or improved services/infrastructures (ICT)' where the following has been observed:

Despite relatively low levels of implementation of Priority 6, some target values for R23/T22 have already been significantly exceeded by the end of 2018, while this is less the case for R25/T24.

Practical and methodological issues: these issues have been identified concerning the application, counting and aggregation of the related common result/target indicators. These issues include:

- unspecific definition of a 'potential users' in the context of the RDP;
- non-validated indicator values and double counting of the same population if different operations are supported in the same area;
- mistakes during the aggregation and calculation of indicator ratios.

Comparing approaches to counting population benefiting from new/improved services/infrastructures

Two main approaches have been applied in the Member States to count the population benefiting from new or improved services/infrastructures, differing mainly due to differences in the operationalisation of the term 'potential users' in the RDPs. In some RDPs a more narrow definition of potential users is applied depending on the specific target groups of certain types of projects, while in other Member States they apply a broader approach for monitoring purposes and count total population of the relevant administrative unit where the service/infrastructure is placed (Table 1).

Table 1. **Comparison between approaches to the operationalisation of 'potential users' in RDPs**

	Total population approach	Target group specific approach
Potential users defined as	The whole population of the administrative unit in which the project is located	Direct beneficiaries (target group) of specific interventions or types of projects
Differentiation	By intervention	• By project type • By target group
Avoidance of double counting	Yes, via unique identifier	Yes, via specific target groups (In the case of projects serving the whole community, the total population is counted)
Strengths	• Simple and automatable • Easy to verify with official statistics	• Provides more accurate numbers • Can be linked to the planning stage of applications (useful for policy steering and evaluation) • Good basis for evaluation (e.g. for applying counterfactual approach)
Weaknesses	• Potentially high overestimation • Numbers are less useful for policy steering and evaluation	• Higher administrative burden • Difficult to verify

How has the target group specific approach been applied?

The target group specific approach is less applied in Member States then other approaches, however, it ensures more precise data on the real population benefiting from new or improved services/infrastructures developed through RDP support.

In Austria, for example, the sub-measure 7.4.1 'Social Affairs' is implemented with an aim to improve local living and economic conditions by maintaining and developing basic social services in rural areas. With respect to this, evaluators have assessed the achievement of the target/result indicator R23/T22 by calculating the share of the rural population benefiting from improved services by collecting the number of potential beneficiaries in the related target populations. The data for the purpose of the evaluation was obtained through interviews as well as from the 'Agrarmarkt Austria' (AMA) database, which contains 'planning' data. The data for the corresponding target group was provided by the project applicant and it was verified through the mandatory plans for facilities. In most cases, a feasibility study was completed at the beginning of the project when designing the service. Table 2 depicts the number of potential beneficiaries related to the relevant overall target populations.

Table 2. Provision of detailed data for R23/T22 at the operations level

Project	Population/target group in the reference area	Benefiting population in absolute numbers	Reference area (rural area without towns)
Aks gesundheit GmbH - Conversion of a social psychiatric dormitory	309,043	24,723	Vorarlberg**
Red Cross Vorarlberg - Purchase of transport vehicles II	309,043	350	Vorarlberg**
Child and Adolescent Psychiatry Rankweil (Herz-Jesu-Heim)	67,779*	678	Vorarlberg**
Day Clinic Child and Adolescent Psychiatry (Marianum Bregenz)	67,779*	678	Vorarlberg**
Senior day care Werfen	2,890	578	Pfarrwerfen
Senior Mobile Pair	3,450	490	Fuschl am See
Refugee House St. Anton	4,637	70	Bruck an der Großglocknerstraße
Purchase of two minibuses for the transport of young people with disabilities	1,008	94	Oberalm
Total	321,028		

* Kids (0 to 19 years old),   ** Excluding towns Dornbirn and Feldkirch

The target group specific approach allows evaluators to collect more accurate data and report on more reliable indicator values with a view to make the indicator more useful for policy steering.

How to improve reporting on the population benefitting from new/improved services/infrastructures in rural areas for the ex post evaluations of RDPs 2014-2020?

The thematic working group identifies some possible ways for making the measured numbers more accurate and to avoid potential errors in reporting, without changing the actual indicator definition.

To operationalise the 'potential users' more precisely for different types of projects/target groups in the RDP context	When further narrowing down the `potential users` in the RDP context, it should be kept in mind, that the indicator fiches' methodology/formula does not define the 'potential users' exclusively as municipalities and group of municipalities, but can also refer to the specific target groups (e.g. women, farmers) or types of projects. Further defining in a more precise way the 'potential users' makes the numbers more meaningful than simply counting the total population of the administrative unit in which an intervention takes place. When using further categorisations of the 'potential users' per eligible activity it is however helpful to respect the demographic structure used by Eurostat (in terms of gender, age group, etc.).
Capture population benefiting from both new and improved services/infrastructures when calculating R23/T22	While the current indicator fiche for result/target indicator R23/T22 refers only to population benefiting from 'improved services/infrastructures', in practice, the population benefiting from new services/infrastructures should also be counted under this indicator.
Verifying the population benefiting and avoiding double counting	After completion of the operation, the number of people benefiting can be verified in order to see if it has been correctly calculated and if there has been any change in the target group that should still be considered in the reported number. Specifying and counting the potential users for different types of projects/target groups helps to avoid overlaps between the counted population benefitting of different interventions in the same administrative unit. Generally, such overlaps between potential users in the same administrative unit may be minor in the case of specific target groups and can be addressed and recorded. However, in cases where in the same administrative unit a project providing benefits to the whole community is implemented in addition to projects for specific target groups, the total population of the administrative unit should be counted only once. It should also be noted, that indicator O.15 cannot be reported as a substitute for the result indicator, as this would be double counting.
Further verification of the indicator values during the ex post evaluation and an in-depth analysis of different types of services	The indicator should be meaningfully used for evaluation, if collected in a precise manner. For this purpose, the evaluator may look at the methodology used to define and collect the 'potential users' in the RDP and if assessed reliably, use the collected numbers as a basis for further qualitative assessment (e.g. survey to explore actual users and quality of services/infrastructures).

Jobs created in rural areas

This topic covers, main issues and solutions for the calculation of 'Jobs created in supported projects' which is used as a common result/target indicator to measure achievements under the Focus Areas 6A (result/target indicator R21/T20) and 6B (result/target indicator R24/T23).

A number of issues concerning the data quality and data collection for the above-mentioned indicators have been identified. For example, stakeholders (e.g. beneficiaries, LAGs) who estimate and report on jobs created in the Member States have different interpretations of how to operationalise the indicator fiches (e.g. not distinguishing between jobs created and maintained or adding temporary jobs created during the investment to the number of jobs created). This affects the plausibility of the monitoring data. There is sometimes insufficient quality control of the data collected (e.g. no corrections of incorrect data entries or checking the accuracy of estimated values) leading to implausible indicator values.

Although the indicator fiches have established a 3-step approach (1. estimate, 2. adjust, and 3. validate) for collecting the indicator values, some Member States still use different points in time and frequency for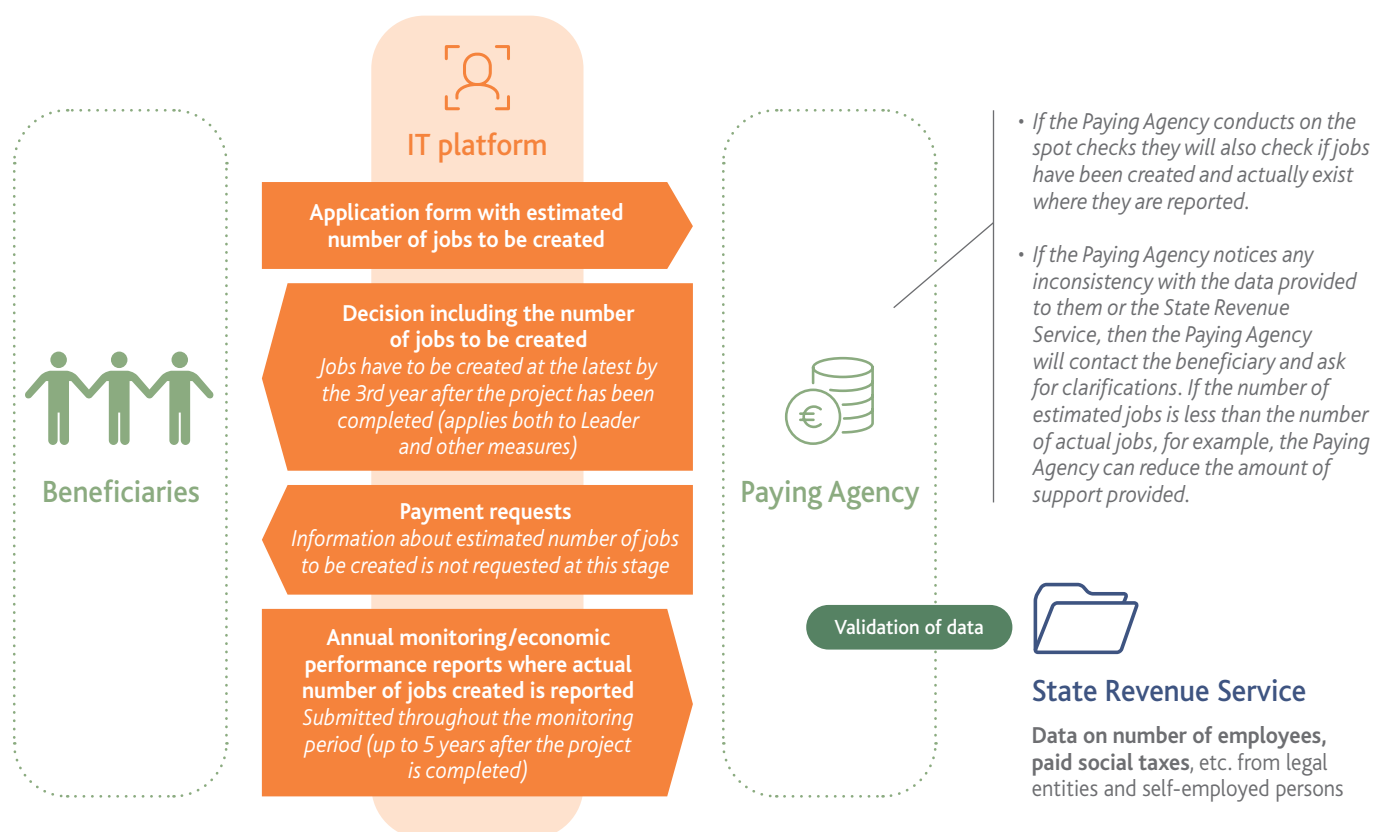 collecting the indicator values (e.g. estimated values are collected only at the time of application and validated through quotients established on previous experiences). Particularly, the third step, the 'validation' is often not carried out as part of the monitoring but only in the context of evaluation.

To increase the plausibility of data on actual new jobs created collected through the ex post validation procedure based on the sample of projects or all completed projects, the Paying Agency may carry out a cross-comparison with other governmental databases (e.g. business or social security data). The administrative burden of the validation procedure on all completed projects, if chosen, should be carefully considered. While this is already practiced in some Member States, in others it is hindered by data protection rules.

Collection of information on jobs created in Latvia

The following example from Latvia schematically shows how the information on jobs created is collected by the Paying Agency from the beneficiaries and the actual number of jobs created in all projects (applied to LEADER and other relevant measures) is validated by using data from the State Revenue Service's database (Figure 1).

Figure 1. **Latvian approach to the collection of information for jobs created**

IT platform

Beneficiaries

Application form with estimated number of jobs to be created

Decision including the number of jobs to be created
Jobs have to be created at the latest by the 3rd year after the project has been completed (applies both to Leader and other measures)

Payment requests
Information about estimated number of jobs to be created is not requested at this stage

Annual monitoring/economic performance reports where actual number of jobs created is reported
Submitted throughout the monitoring period (up to 5 years after the project is completed)

Paying Agency

- *If the Paying Agency conducts on the spot checks they will also check if jobs have been created and actually exist where they are reported.*

- *If the Paying Agency notices any inconsistency with the data provided to them or the State Revenue Service, then the Paying Agency will contact the beneficiary and ask for clarifications. If the number of estimated jobs is less than the number of actual jobs, for example, the Paying Agency can reduce the amount of support provided.*

Validation of data

State Revenue Service

Data on number of employees, paid social taxes, etc. from legal entities and self-employed persons

How can we improve the reporting on the jobs created in rural areas for the ex post evaluations of RDPs 2014-2020?

Member States are encouraged to further enhance the quality of the data collected with a view to avoid incorrect entries and implausible values in the SFC system. The stakeholders (e.g. beneficiaries, LAGs) who estimate and report on jobs created in the Member States, should be supported, in order to achieve a common understanding of the definitions. Methodological support on data collection can also include, for example, providing checklists for project applicants or LAGs and integrating error reports to avoid incorrect entries in online application forms and/or reports.

One of the outcomes of the thematic working group is an example of a checklist, which has been developed based on the observations of the use of indicators R21/T20 and R24/T23 in the Member States and their definitions established in the fiches. This checklist includes quality criteria which can help to achieve a common understanding with involved actors of what characterises high quality data to be collected for monitoring jobs created and their respective reporting.
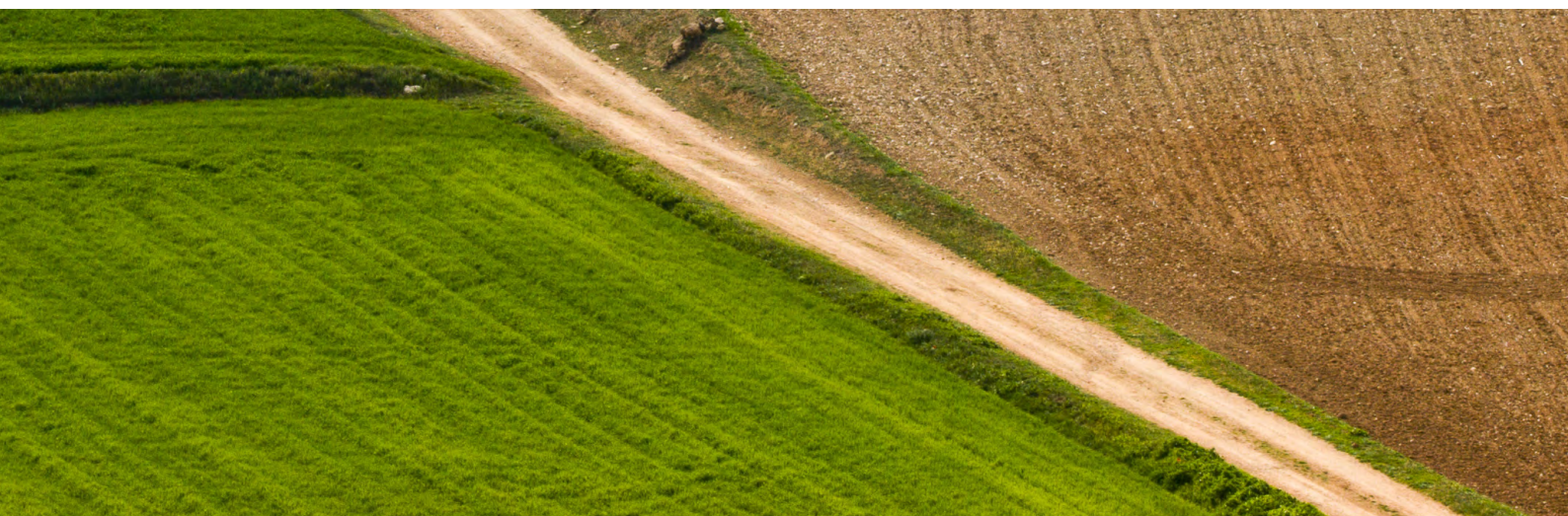
What comes next in the Thematic Working Group 8?

The work of the thematic working group continues with the next working package, which will deal with issues related to the assessment of RDP effects on ensuring the sustainable management of natural resources and climate action.

Thematic working group experts will focus on emerging issues related to calculating and reporting on values of environmental complementary result indicators and will work on suggestions to support Member States in preparing for the ex post evaluation of RDPs 2014-2020, particularly focusing on two topics:

- emissions from agriculture, energy efficiency and renewable energy;
- water abstraction and quality.

Working Package 2 of the Thematic Working Group 8 is planned to be released in October 2020. ∎

Learn More!

More detailed outcomes of the Working Package 1 focusing on the assessment of RDP effects on achieving balanced territorial development of rural economies and communities can be found on the Evaluation Helpdesk's website.

To ensure that outputs and the process meets the objectives of the thematic working group, ongoing consultations will take place with evaluation stakeholders through periodic Sounding Boards and other means of written feedback.
If you want to join the Sounding Board, please inform us via e-mail:
info@ruralevaluation.eu

🌐 New Technologies for Monitoring Agricultural Activity:
New IACS Vision in Action (NIVA) Project

The Integrated Administration and Control System (IACS) operated by Member States forms the core of the digital subsidy payment infrastructure of the European Unions' Common Agricultural Policy (CAP). At the same time, trends in digitalisation of agricultural businesses and administration, availability of digital data and their wide acceptability in the agricultural industry, as well as, the need for more evidence-based policy evaluation has put new demands on the current IACS system.

The European Commission has been promoting using satellite imagery for checks on crop types and cropped areas that are the basis of farmers claims for income support already since the 1990s. This is now common practice in the whole EU. With the new CAP planning period with CAP Strategic Plans the European Commission wants to gradually move to a performance approach, 'rewarding' farmers for doing or leaving activities to contribute to climate goals. For instance (no) tillage or (delayed) mowing are such activities. The European Commission and Member States are extending their compliance assurance from rigid annual checks to a more farmer centric approach, where farmers should be made aware of what is expected from them, their activities are monitored throughout the year and regularly controlled.

This new approach, referred to as Area-Monitoring-System, can be very labour intensive and potentially cause high administrative burdens, unless, modern digitalisation tools are used. In the tradition of the CAP implementation, the European Commission establishes conditions and output requirements, while national authorities and Paying Agencies decide on the implementation. This means that there are many different implementations and the efforts to modernise all systems in the EU can differ. Given these challenges and the short deadlines, working together is a relevant way to speed-up innovations.
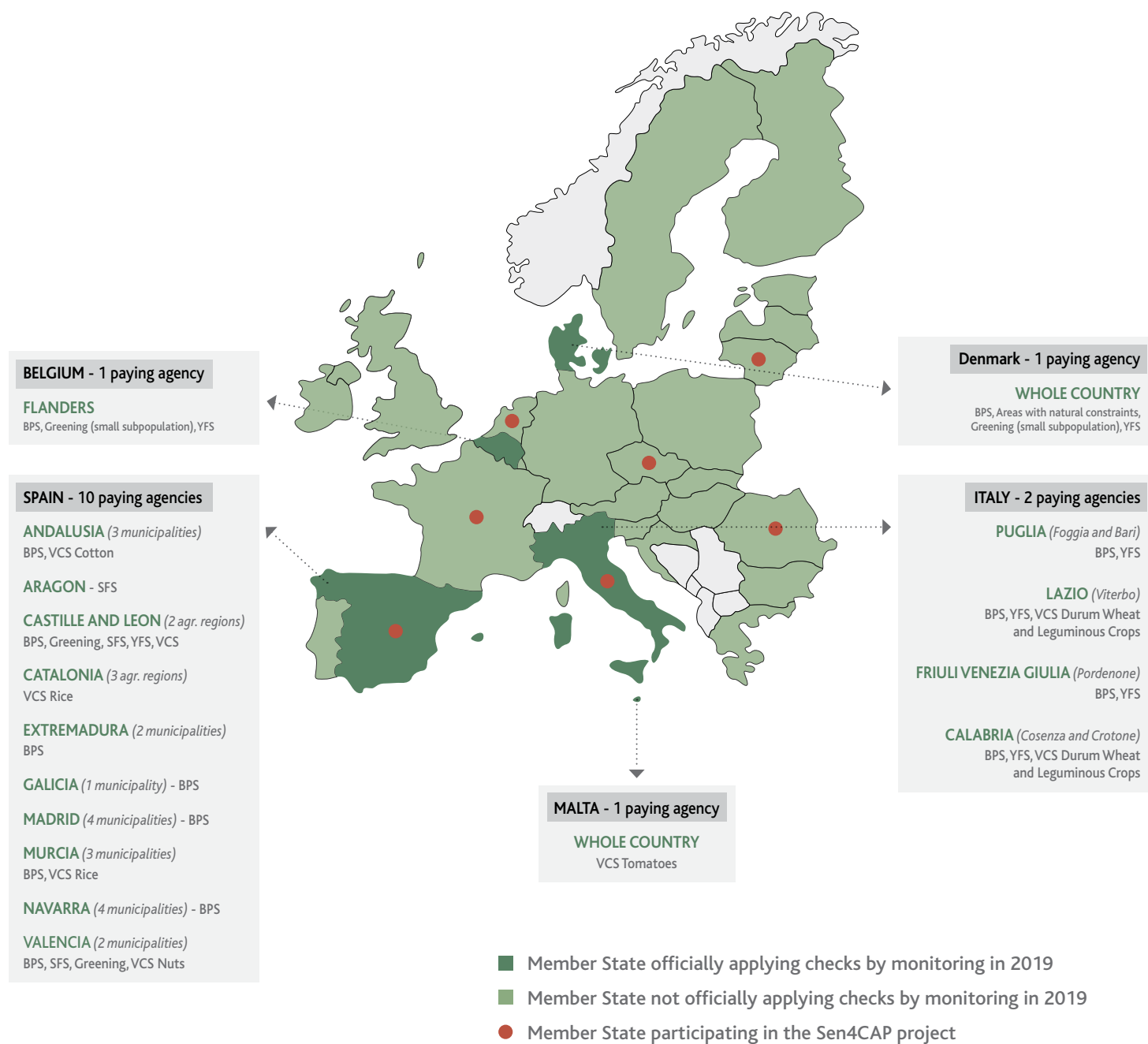
As a step towards such a system, the European Commission has already provided new guidance to deploy monitoring tools in the current CAP framework. This is called 'Checks by Monitoring', that also offer Member States an opportunity to get acquainted with monitoring, which will be an indispensable element in the future CAP. In 2019, 15 out of 66 Paying Agencies have piloted this Checks by Monitoring (see Figure 2).

Figure 1. **The farmer's application process from a Paying Agencies point of view (grey) and how the NIVA innovations are interlinked into this process (orange)**

Source: https://www.niva4cap.eu/use-cases
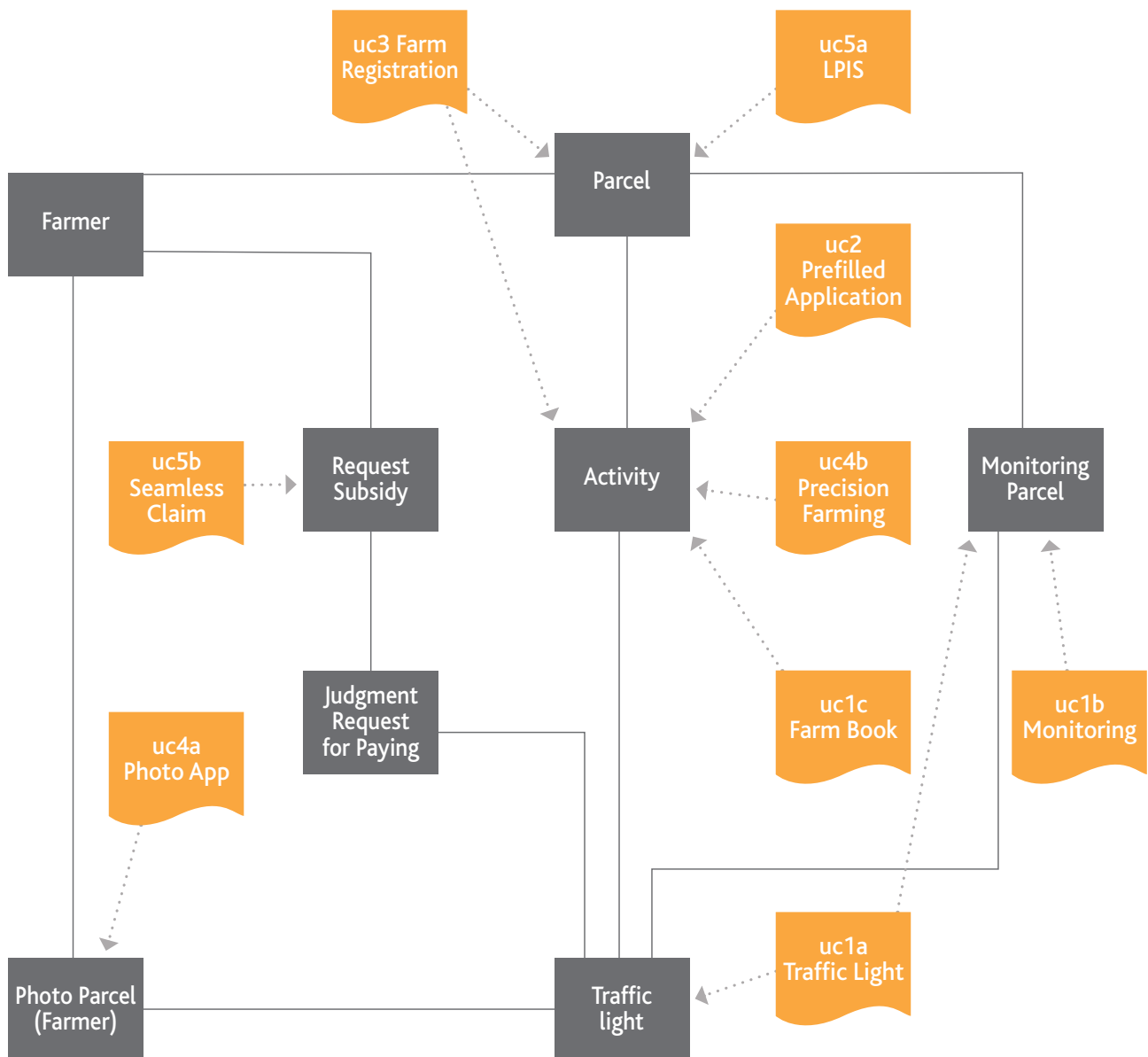
Figure 2. **Pilot checks for monitoring in the EU**

BELGIUM - 1 paying agency

FLANDERS
BPS, Greening (small subpopulation), YFS

SPAIN - 10 paying agencies

ANDALUSIA *(3 municipalities)*
BPS, VCS Cotton

ARAGON - SFS

CASTILLE AND LEON *(2 agr. regions)*
BPS, Greening, SFS, YFS, VCS

CATALONIA *(3 agr. regions)*
VCS Rice

EXTREMADURA *(2 municipalities)*
BPS

GALICIA *(1 municipality)* - BPS

MADRID *(4 municipalities)* - BPS

MURCIA *(3 municipalities)*
BPS, VCS Rice

NAVARRA *(4 municipalities)* - BPS

VALENCIA *(2 municipalities)*
BPS, SFS, Greening, VCS Nuts

Denmark - 1 paying agency

WHOLE COUNTRY
BPS, Areas with natural constraints,
Greening (small subpopulation), YFS

ITALY - 2 paying agencies

PUGLIA *(Foggia and Bari)*
BPS, YFS

LAZIO *(Viterbo)*
BPS, YFS, VCS Durum Wheat
and Leguminous Crops

FRIULI VENEZIA GIULIA *(Pordenone)*
BPS, YFS

CALABRIA *(Cosenza and Crotone)*
BPS, YFS, VCS Durum Wheat
and Leguminous Crops

MALTA - 1 paying agency

WHOLE COUNTRY
VCS Tomatoes

■ Member State officially applying checks by monitoring in 2019
■ Member State not officially applying checks by monitoring in 2019
● Member State participating in the Sen4CAP project

Source: ECA special report 04/2020

EUROPEAN
EVALUATION
HELPDESK
FOR RURAL DEVELOPMENT

Tackling common challenges together

In the NIVA project, Paying Agencies from 9 Member States joined forces to tackle this innovation challenge together. It aims to modernise the Integrated Administration and Control System (IACS) used by Paying Agencies, by making efficient use of digital solutions and e-tools to reduce administrative burden and improve environmental performance. With a view toward the Area Monitoring System (AMS) project partners identified the technologies that need to be implemented to monitor and control in a more efficient and certain way.

An important aid in the analysis of satellite imagery is the use of the agricultural parcel boundaries, because if the object is known, by its boundaries in this case, imagery can be more effectively used in monitoring. Every Member State has a compulsory Land Parcel Information System (LPIS) in place and in addition registries for crop parcels. The NIVA project is investigating existing and new ways of access to and sharing of these LPIS and parcel data. In some Member States parcel boundaries are already public open data and if besides boundaries, also the land use of that parcel is published, analyses can be done on the land use and land use changes, supported by satellite imagery. This is an important element in the LULUCF, the third pillar in the European climate action.

Despite the wealth of satellite data currently available, detecting farm activities is not always feasible when the timing and intensity of activities is subject to regulations. Therefore, even after a robust satellite analysis, a number of parcels will be inconclusive regarding compliance. According to the Checks-by-Monitoring approach Paying Agencies are required to follow up on these inconclusive cases. Interacting with the farmer then provides two options: farmers adjust their claims, or farmers send additional documentation to support their claim.

The NIVA project investigates two different methods for providing additional proof or support to the farmer's claim. The first one is the so-called Geotagged Photo, a photo that is location and time stamped, providing visual evidence about the state of the parcel. The second option NIVA is investigating is the supply of machine-movement data. This would show that certain activities were carried out at that location and on a specific date, providing further evidence for the farmer.

Geotagged Photo App (GPA)

The aim of NIVA is to co-develop a GPA with farmers. The project is not concerned about the technological challenges of taking photos on smartphones, as this has been shown already in different Member States. The NIVA project instead looks at how the technology can be used to innovate and provide an alternative to the on-the-spot-checks and rapid field visits. Asking farmers to deliver additional proof to support their claims can only be effective if the process is simple, transparent and highly standardised. Since these geotagged photos are in essence evidence for a payment, a certain level of assurance also needs to be guaranteed.

First trials show that the technology has great potential but needs to be further fine-tuned before it can be called an innovation. At the moment, farmers still experience issues with their smartphones, internet connections (a lot of agricultural land is a so-called connectivity white spot) and taking the right picture that is needed for the desired proof, as this can be challenging for an untrained farmer. The multi-actor co-design approach in NIVA supports in identifying and avoiding these issues in time.

> **First trials show that the technology has great potential but needs to be further fine-tuned**

The NIVA project has benefitted from the development in the open source domain, especially through the EGNSS4CAP project, run by Europe's GNSS agency. This prototype has helped in harvesting the benefits of Europe's GALILEO programme, in particular for location integrity mapping.

Machine data

Another way to prove, for instance, the date of mowing, is by sharing machine data between the farmer and the Paying Agency. Modern machines nowadays record their activity in the on-board terminal, via different means (i.e. the cloud connections that machine manufacturers provide). This data can be made available to farmers and can then be transferred to the Paying Agencies. The big advantage of machine data is that it has a spatial component and it is timestamped. It will therefore show when and what is done.

There are two drawbacks of this approach. First, it can only serve as proof of what has happened, not of what has been omitted

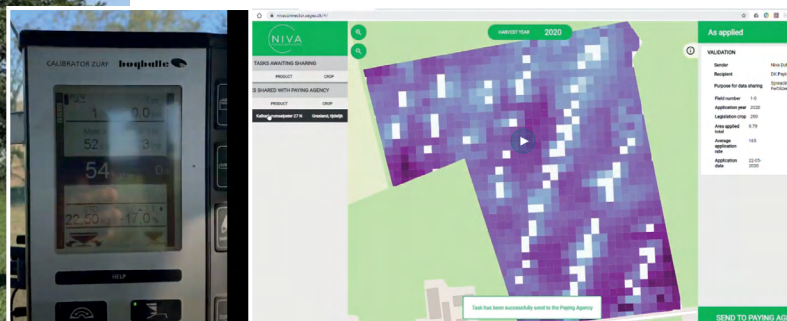Figure 3. **Mockup of the geotagged photo app**
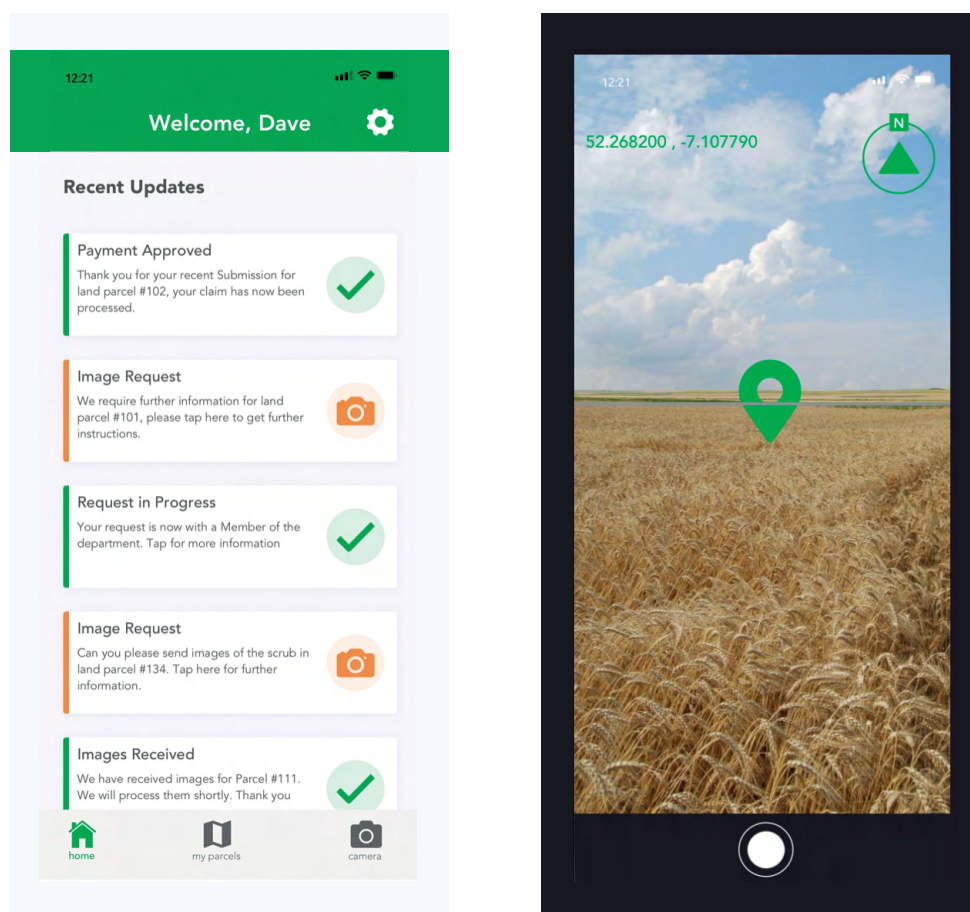
(to the right, the added augmented reality provides assistance to the farmer)

Send your
questions to:
**info@ruralevaluation.eu**

(e.g. tillage). Second, not every tractor or field machine is already equipped with these types of controllers. This last point, however, can still be viewed as a good thing, because it allows for discussion with the mechanization industry to see which options may be best and hopefully come to a quick mutual understanding about how machine data can be used to prove farmer activity.

Improving evaluations through more robust data

The IACS system has been used to govern the CAP direct payments and is a valuable source of information. Although it has been identified as a useful tool/data source for performing evaluations, which will become more important with the new CAP, its usage is currently limited due to a) a range of diverse implementations across Member States, and b) the lack of agro-environment data. Therefore, IACS is not yet fully exploited to assess the impact of agricultural activities for evaluations. With these three examples of new technologies, Paying Agencies are innovating to create a simple and robust system to administer and control payments related to the Green Deal and the CAP. Through the use of new and more accurate

data sources as part of the payment process of farm subsidies, which the NIVA project is working to ensure, the robustness and granularity of evaluations can be greatly improved. This will be vital for future evaluations of the agro-environmental impacts and facilitate the implementation of the future Performance Monitoring and Evaluation Framework. ∎
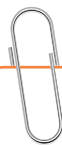
BE PART OF OUR COMMUNITY

If you want to follow the achievements of the NIVA project, or want to contribute to our progress, please register for NIVA's newsletter and get updated on the latest developments, webinars and stakeholder meetings.

EUROPEAN
EVALUATION
HELPDESK
FOR RURAL DEVELOPMENT

Assessing the Prioritisation of Needs
in the Czech Republic CAP 2020+

The first stage of the ex ante evaluation begins with the appraisal of the assessment of needs including the SWOT. The SWOT analysis of the current situation forms the evidence basis for the assessment of needs. The assessment of needs serves as the basis for setting up the intervention strategy and for designing the interventions of the CAP Strategic Plan. During the CAP Strategic plan process one of the first critical steps is prioritising the needs and assessing them. Throughout this process ensuring active involvement of partners in the process of developing the needs while making sure that it is transparent, specific and complete is vital.

A participatory approach to prioritising needs in the Czech Republic

During the CAP Strategic Plan design process, working groups were established for each specific objective, forestry and knowledge transfer. These working groups were composed of key experts each in their corresponding topics, Ministry of Agriculture representatives and representatives of the Institute of Agricultural Economics and Information (IAEI), who facilitated the approach. Each working group was assigned a leader who received guidelines on how to carry out the process in order to ensure that a common approach was taken across all the working groups. Outputs of the working groups were then presented to the public for discussion with key stakeholders.

The approach to the need's prioritisation was designed in cooperation with the working group leaders, whom had previously done in-depth research based on evidence from different studies/statistics and discussing the topics/problems in-depth with the purpose of responding to the following challenges:

- what criteria should be used and how to agree on weights reflecting their importance in the Czech situation;
- how to ensure, as much as possible, the consistency of the application of the approach across the working groups;
- how to make the best use of the high number of experts and their varied backgrounds in each of the groups;
- how to ensure the priorities are established first from an expert point of view, before the discussion begins with interest groups.

EUROPEAN
EVALUATION
HELPDESK
FOR RURAL DEVELOPMENT

The agreed approach consisted of the following principles to allow the criteria to reflect the importance of issues/problems which needed to be addressed:

- **Extent** (measured by proportion of agriculture/forestry affected): For example, does the problem cover a large area or most of the farmers (high score) or is it related to a specific group or small share of agriculture/forest areas (low score).
- **Severity** (the potential negative impact per unit if no action is carried out): The more severe the expected impact of the problem the higher the score received. It means the issues could be local and associated with a small number of sites/farmers, but the issues could have severe local or even global impact if not addressed by needs and relevant interventions.
- **Private vs. public sector interests**: This criterion was assessed to see to what degree the action had relevance towards the public interest (e.g. pure public interest actions like increasing biodiversity was assessed with the highest score).

Each criterion was carefully presented and explained with examples in the working groups to make sure that all members were sure to understand them and then all members of the working groups were asked to assess them on a scale 1-5.

The agreed weights for each criterion were as follows:

- the scale of the problems to which needs respond has eight points;
- the severity of the problem seven points;
- public interest five points.

When each member of the working group proposed scores, the final average score was calculated multiplying the score by the weight (the maximum was 100 points). The collection of scoring and the calculation of the final score for each need was carried out during the working group meeting. The results were presented separately for experts and the Ministry of Agriculture staff and then discussed together to facilitate the group dynamic and mutual learning.

These scores allowed for the creation of an order of the needs from low to high priority per specific objective and for the whole CAP strategy. The results showed a high consistency and there has not been negative feedback from the working groups about the final outcomes of the assessment. Finally, 35 needs were assessed (the intention was to avoid too detailed needs). Given the size and character of the national territory the needs were not differentiated regionally (i.e. relevant interventions will be tailored to regional level).

The main challenge was the needs assessment approach design (to bring together different opinions on the criteria and their weights) and even more demanding was to ensure that the approach was used consistently across the working groups (e.g. several examples were prepared and explained). It is quite difficult to keep the consistency of approach if new needs are identified during the ongoing iterative process of the CAP design and coordinators should be prepared to meet such potential developments.

The results of the needs prioritisation were used by the Ministry of Agriculture as arguments during the discussion with interest groups on the selection of interventions.

Assessing the prioritisation of needs

The ex ante evaluator should ensure at an early stage that the foundation of the future intervention strategy is comprehensive, considers requirements for the CAP specific objectives and provide an overall evidence-based picture of the current situation of the area covered by the CAP Strategic Plan. Understanding what constitutes a robust appraisal of the assessment of needs and the challenges is central. In that regard, the following are essential for checking the prioritisation of needs:

- Checking that the assessment of needs is transparent, specific, complete and sufficiently prioritised.
- Appraising the active involvement of partners in the process of developing the assessment of needs including the SWOT.

> Understanding what constitutes a robust appraisal of the assessment of needs and the challenges is central

In the case of the Czech Republic, the ex ante evaluator has contacted IAEI for the description of the prioritisation approach and the scores for each individual need. The assessment of the need's prioritisation approach carried out by the ex ante evaluator was focused on the logic of the approach (selection of criteria and their weights). The evaluator checked to make sure the assessment was transparent and sufficiently prioritised and did not challenge the approach and the results of the prioritisation based on their assessment. The only proposal of the ex ante evaluator was to describe the needs prioritisation in the CAP Strategic document more explicitly. In the Czech Republic, this needs prioritisation and its assessment has contributed to evidence for the intervention selection and their priorities in a positive and effective way and this activity has been considered very useful for future CAP targeting. ∎

The 13ᵗʰ Good Practice Workshop:
'Data Management for the Assessment of RDP Effects'

The **13ᵗʰ Good Practice Workshop** was the first online workshop of the Evaluation Helpdesk, as a result of the ongoing COVID-19 situation. The 13ᵗʰ Good Practice Workshop, took place on 13-14 May 2020, with the overarching objective to reflect on the experiences from the AIR 2019 in relation to data management, with a view to preparing for the ex post evaluation of RDPs 2014-2020. Additionally, this workshop served to identify necessary lessons learned relevant for future monitoring and evaluation activities.
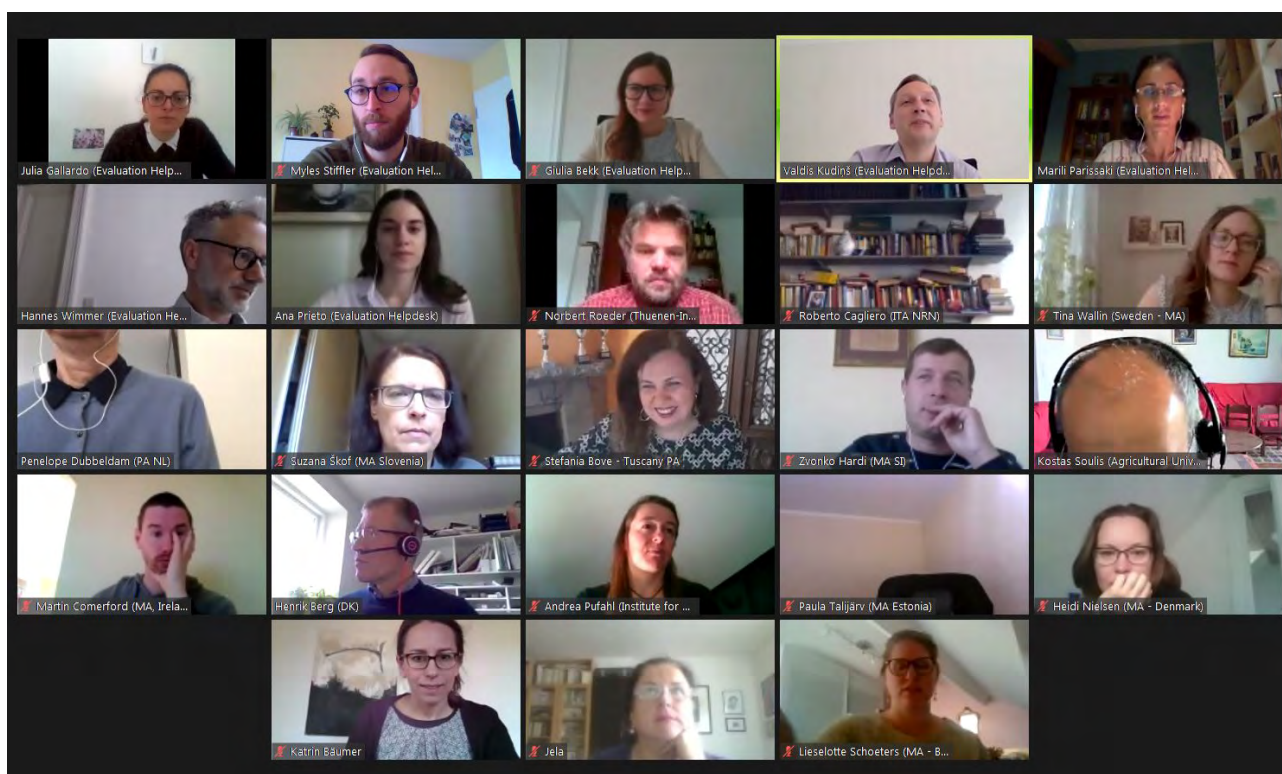
The workshop brought together 70 participants from 25 different EU Member States and focused specifically on how to identify and meet data needs in relation to evaluation, how to better use existing data sources and how to resolve specific data related issues for preparing the ex post evaluations and future monitoring and evaluation activities. The workshop offered valuable insights into the use of existing data sources, the limitations and challenges encountered, and the solutions applied for better identification and use of data for evaluation purposes. Five case studies were presented. One each
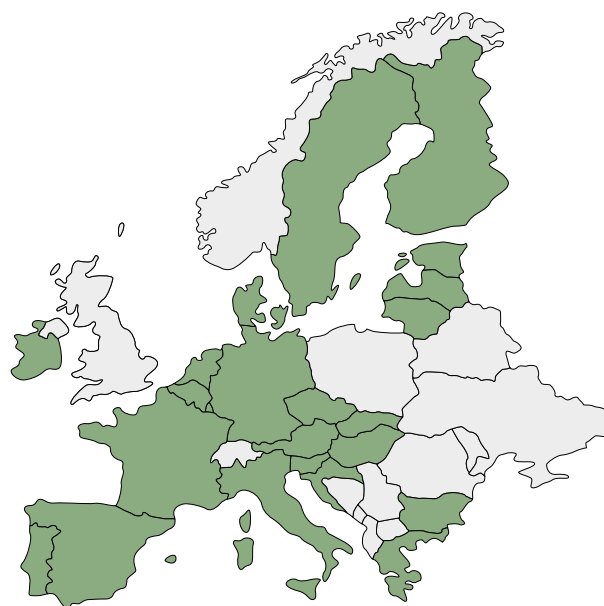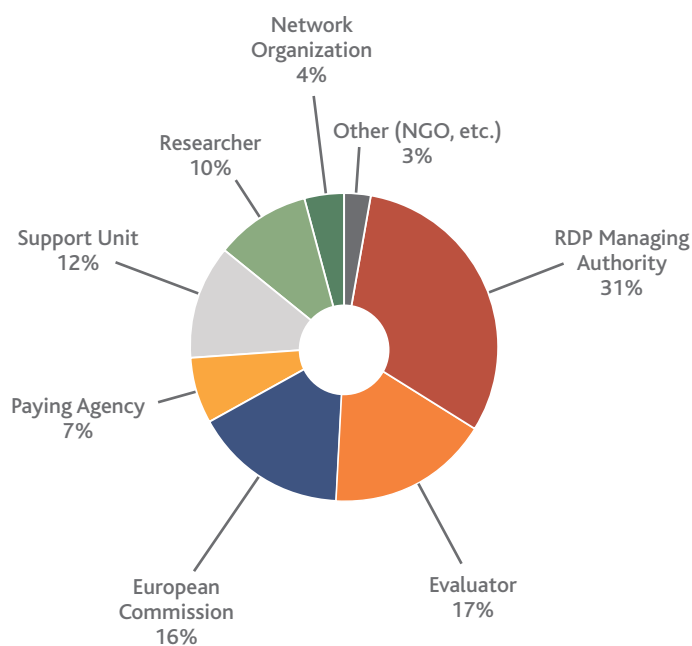
from Germany and Italy on the assessment of economic and socio-economic effects, one from Germany on the assessment of environmental effects, and one from Greece on the assessment of effects on water abstraction and water quality. Additionally, a composite analysis of experiences from several Member States for the assessment of effects on emissions was also presented. Input from DG AGRI representatives on data management related developments, including issues related to the definitions of rural areas, complemented the case studies and facilitated fruitful discussions with participants.

'Agriculture is data rich. It is a resource that has accumulated over many years. This heritage is useful, but it is also difficult to maintain, however, now with IT and digitalisation this information should be more available and accessible to all.'
Pierluigi Londero (DG AGRI)
'Knowing where the data is does not help access it if the collection is not coordinated.'
Groupwork participant.

Pie chart:
- RDP Managing Authority 31%
- Evaluator 17%
- European Commission 16%
- Support Unit 12%
- Researcher 10%
- Paying Agency 7%
- Network Organization 4%
- Other (NGO, etc.) 3%

Outcomes of the case studies and discussions that followed

Lessons for the assessment of socio-economic effects:

The limitations in existing data sources can be addressed in the future with the use of experimental approaches and beneficiary surveys, while also using all available data sources, including national sources and thematic studies, and covering a longer implementation period. Quality data is especially important for evaluating the impacts on employment or poverty, which are expected to be small.

Lessons for the assessment of economic effects (e.g. changes in entrepreneurial income, agricultural output):

The FADN can be complemented with additional samples to address data gaps (e.g. satellite samples, which have been cost-effective and comparable with FADN in Italy). The key success factor lies in the design of a robust and comprehensive data system from an early stage. It is also important to pay attention to the integration and the harmonization of information.

The outcomes of the discussions on the case studies and group work brought together some proposed solutions by Member States on how to improve data management systems for the assessment of competitiveness, environmental and socio-economic effects and LEADER.

EUROPEAN
EVALUATION
HELPDESK
FOR RURAL DEVELOPMENT

HOW TO IMPROVE DATA MANAGEMENT FOR THE ASSESSMENT OF EFFECTS ON COMPETITIVENESS

- Improving FADN so it responds to evaluation needs can be done by analysing the limitations of using FADN for evaluation and undertaking improvements, such as, using additional variables, adding new questions in the FADN survey or incorporating the results of research studies (e.g. from the JRC). The underlying principles should be knowing what to change in FADN and for what purpose, while also considering the additional costs entailed.

- The integration of FADN and other data sources can be done with the provision of unique identifiers. Other factors to achieve the integration of FADN and other data sources include overcoming legal issues or streamlining content and collection periods.

HOW TO IMPROVE DATA MANAGEMENT FOR THE ASSESSMENT OF SOCIO-ECONOMIC EFFECTS

- Improving the representativeness and the size of the FADN sample can be done in many ways, including to encourage farmers to participate in FADN or to develop satellite samples.

- General data availability and quality can be improved by filling data gaps in different data sources (e.g. through additional surveys, focus groups, use of proxies), collecting data early and ensuring the required spatial level of detail in the existing data sources.

- The quality of data in the operations database can be improved with the harmonisation of data, definitions and spatial scales. The use of quality assurance procedures and medium to long-term validation of data can improve its reliability.

HOW TO IMPROVE DATA MANAGEMENT FOR THE ASSESSMENT OF LEADER

- Improving the information obtained from LAGs can be done by clarifying what the evaluation is about and what needs to be assessed concerning LEADER. It is also important to provide clear instructions to LAGs, ask additional questions and offer support in order to improve the usefulness and quality of the data they collect.

- Measuring job creation by LEADER can be addressed with counterfactuals between similar LAG territories, cross-checking data against other databases or checking the before and after situation based on project applications and final reports.

- The quality of data related to LEADER in the operations database can be improved by including more information about local development strategies, including all types of LEADER beneficiaries and ensuring more cooperation between different data providers.
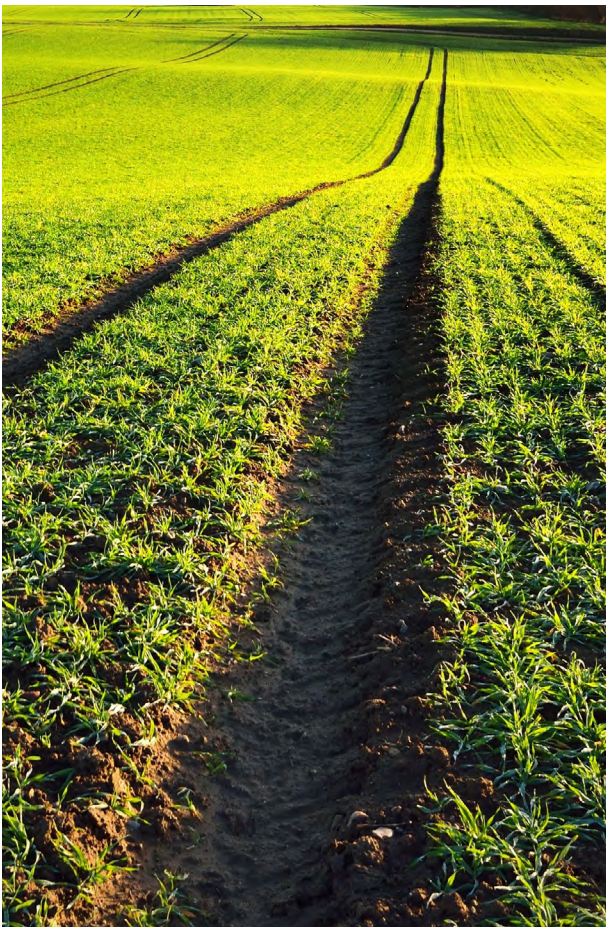
HOW TO IMPROVE DATA MANAGEMENT FOR THE ASSESSMENT OF ENVIRONMENTAL EFFECTS

- The use/integration of a variety of environmental data sources together can be achieved through harmonisation of definitions. After harmonisation is conducted the identification of potential databases to be integrated can be done (e.g. IACS and FADN, LPIS and IACS, LPIS and ESDAC). A key factor for integrating different data sources includes knowing all potential data providers, setting up common identifiers, establishing data sharing or single hub principles, defining system boundaries, knowing the spatial/geographic distribution of the data and being aware of the time series of the data.

- Data gaps can be overcome through resolving legal issues, allowing time for planning and collection of data, investing resources into obtaining robust time series data, establishing common practices/models and using alternative data sources depending on the scope and needs of the evaluation. National data sources are another option for addressing data gaps but may require harmonisation of definitions with EU definitions and better guidance on how to access them.

- The large variety of environmental data sources and its highly fragmented landscape can be overcome through further guidance and documentation of the different data sources and providing easier access for evaluators and researchers through data sharing facilities, research centres and better coordination, this would enable evaluators to more easily find the data and access it.

- The quality of environmental data in the operations database can be improved through validation and consistency checks over a longer period of time.

The overarching conclusion of the Good Practice Workshop was that it is vital to integrate different data from different data sources and Member States, while ensuring the timely collection of quality data if one wants to have robust evaluations for the future. ■

Estimating Impacts of EU RDP Support Through a Regional Quasi-Experimental Approach

Jerzy Michalek, Pavel Ciaian and Federica Di Marcantonio, have recently published the paper 'Regional impacts of the EU Rural Development Programme: Poland's food processing sector', in the journal Regional Studies, which illustrates the unique application of a regional quasi-experimental estimation approach to estimate the impacts of EU RDP support implemented in the programming period 2007-2013 on the performance of the food processing sector in Poland.

Given the complex nature of RDP support and a wide variety of agents that can receive it, the rigorous estimation of the total (i.e. direct and indirect) RDP effects on the food processing sector can be methodologically challenging. In general, the RDP can affect performance of this sector in at least six different ways:

EFFECT I. Through a direct effect of the measures specifically targeting the food processing sector (i.e. Measure 123, here called FP-RDP[1]) on the supported food processing firms.

EFFECT II. Through an indirect effect of other RDP measures targeting agricultural farms (e.g. Measure 132: Supporting farmers who participate in food quality schemes, or Measure 133: Supporting producer groups for information and promotion of products under food quality schemes) on the supported food processing firms.

EFFECT III. Through an indirect effect of other RDP measures targeting agricultural farms (e.g. Measure 215: on farm animal welfare payments; or Measure 142: producer groups) on the non-supported food processing firms.

EFFECT IV. Through specific measures targeting the overall development of rural areas (e.g. Measure 301: Improvement and development of rural infrastructure, Measure 321: Basic services for the economy and rural population, Measure 322: village renewal and development) on supported and non-supported food processing firms.

EFFECT V. Through the general equilibrium (spillover) effect of (all type of) the RDP support on the performance of non-supported food processing firms and non-food processing sector (e.g. technology and capital suppliers, construction sector).

EFFECT VI. Through the interaction effect between RDP measures (i.e. the simultaneous effect of two or more independent RDP measures interacting with each other) on supported and non-supported food processing firms.

Micro-data for the food processing sector are often not collected or not easily available to programme evaluators/researchers, due to the privacy issues. However, even if the individual firm panel data for food processing firms would be available about participants and non-participants in the RDP support, it might not be possible to identify the unbiased RDP impacts on the food processing firms (Effect I) because of the confounding general equilibrium effect of the RDP on non-supported firms (Effect V).

Regional quasi-experimental methodological approach

The regional approach estimates the combined net intra-regional effects of the RDP support reflecting the direct effect on the supported processing firms (Effect I) and the general equilibrium effect on the non-supported firms (Effect V). That is, the estimated net regional effect of the RDP encompasses impacts such as the productivity and profitability improvement of supported firms (Effect I), the competitive pressure between supported and non-supported firms, and the technological spillover effects or imitation on non-supported food processing firms (Effect V)[2]. The advantage of the applied regional approach is that it can directly address the problem related to the bias caused by the general equilibrium effect of the RDP on non-supported firms (Effect V) and the identification of the impacts of the RDP measures targeting overall development of rural areas (Effect IV). The regional approach can capture more accurately the impact of the measures targeted on the overall development of rural areas on the food processing sector (Effect IV) because, among others, it can compare performance of the food processing sector between the supported regions and the non-supported control regions. The estimation approach based on micro-firm data usually cannot identify impacts of these type of measures because supported and non-supported firms cannot be identified, as usually all firms in a given region are impacted by Effect IV.

A further advantage of the regional approach is that it can estimate the aggregate (i.e. total effects I-VI) regional RDP impacts of the support on the performance of the food processing sector. In

contrast, the estimates based on the micro-survey data might lead to biased aggregate regional effects if the sample is not representative.

As with any approach based on micro-data, also in the case of the regional approach, it is desirable that it is applied at the programming area level and contains regions at a lower administrative unit within the programming area (e.g. NUTS 4 or NUTS 5). This is because Member States have certain regulatory flexibility in implementing their RDPs, which allows them to design programme instruments tailored to the specific needs of individual rural regions.

Data and variables

To illustrate the advantages of the regional approach, regional panel data for Poland at NUTS 4 (Powiat in Poland) level for the period 2006-2016 are used. The data are available from the Regional Data Bank published by the Polish Statistical Office. Of the total 379 NUTS 4 regions in Poland, 314 regions (rural NUTS 4) are included in our analysis (i.e. approximately 83% of all NUTS 4 regions). The remaining 65 regions are excluded because they represent urban areas.

The structure and performance of individual regions play an important role in the allocation of RDP funds. The allocation of RDP support is pre-determined by taking into consideration various characteristics of individual regions (Terluin et al., 2017; Castaño et al., 2019). This implies that the RDP is not randomly allocated between regions and variables describing characteristics of regions are crucial in a decision whether a given region

received support. As a result, socio-economic-environmental characteristics of the regions need to be taken into consideration when selecting appropriate control variables. Further, it is important that only those control variables are included which simultaneously influence participation in the RDP support (e.g. regional unemployment rate) and the outcome variables (e.g. employment in the food processing sector).

The NUTS 4 panel data set contains approximately 120 variables capturing all relevant rural development dimensions, i.e. economic, social, environmental, infrastructural, demographic, etc. The data also includes information about the level of support for individual RDP measures (including for FP-RDP) and the allocation of other public support (e.g. structural funds). Additionally, data contain several indicators which can be used to measure the performance of the food processing sector.

In total, 63 socio-economic variables were considered as control covariates (prior to the RDP support implementation, i.e. 2006) that can be used in the matching of the quasi-experimental design to address the selection bias in the allocation of RDP support. Given that in the analysed period regions also received other support than that under the RDP (or FP-RDP) a set of control variables included a covariate which reflects the level of other RDP support (in the case of the FP-RDP) and non-RDP support (e.g. structural funds, other CAP subsidies). Out of the total 314 regions used in this paper, 270 (86%) of them received FP-RDP support, whereas only 44 regions (14%) were unsupported by this measure. In the case of total RDP support (T-RDP), all (314) regions were supported. The comparison of mean of covariates in FP-RDP supported and non-supported regions for the pre-support period (i.e. 2006) is shown in Table 1G (see: on-line Appendix).

Three outcome indicators are used to assess the impact of the RDP on the performance of the food processing sector, calculated as the difference between the period after the implementation and the period before the implementation of the RDP:
- A change (difference) in the average number of food processing firms between 2009 and 2016.
- The number of exiting food processing firms expressed as a cumulative number of exiting firms between 2009 and 2016, and
- A change (difference) of employment in food processing firms between 2006 and 2013.

The number of food processing firms measures growth of firms (and the sector) as a whole, while the number of exiting firms (bankruptcies) captures the intensity (dynamics) of the structural change occurring in the food processing sector in Poland[3]. The change (difference) of employment in food processing firms is a key socio-economic indicator reflected in RDP priorities (European Commission, 2006).

Estimation approach

A quasi-experimental binary treatment framework is employed to estimate the FP-RDP effects, whereas for the T-RDP, Generalised Propensity Score Matching (GPS) is applied. In the case of the FP-RDP support, the data contains non-treated regions so it allows for using a binary approach. The impacts of the FP-RDP support on the performance of the food processing sector as measured by the average treatment on the treated (ATT) was then analysed, a widely applied method in the literature for quasi-experimental evaluation of policies. To address the selection bias, a combination of matching and Difference-in-Differences (DID) method are applied. Using a binary approach, three matching algorithms are tested – modified Mahalanobis distance matching (MDM), propensity score matching (PSM), and coarsened exact matching (CEM) – as well as some of their combinations (e.g. CEM-PSM: a double matching) and all jointly with DID. The GPS is applied for the T-RDP support due to the unavailability of the counterfactual non-supported regions. Further, the application of GPS allows estimating how the T-RDP effects vary with the size of the support.

> It provides a more accurate aggregate picture of regional policy impacts

Main Findings

The estimated results for the Measure 123 (FP-RDP) show that this support contributed to some important structural change in the food processing sector in Poland by causing many firms to exit, but at the same time, it contributed to the creation of new ones and their overall increase (for details see: Table 1). In terms of employment, the FP-RDP led to a reduction of labour in the food processing sector in Poland, likely due to the fact that the support induced substitution of labour for capital[4]. Similar results were obtained for the total RDP (T-RDP) support. The T-RDP caused an increase in both total number food processing firms and the number of exiting firms. However, in contrast to FP-RPD, the total RDP support had a positive impact on employment in the food processing sector due to the fact that T-RDP includes many different measures, many of which have a positive impact on employment in the food processing sector. The GPS approach used for estimating the T-RDP effects shows that the support effects varied with its intensity level suggesting different policy efficiency depending on its size.

Conclusions and recommendations

The analysis shows that the applied regional approach brings several advantages compared with estimations based on firm data by capturing the RDP's effects on non-supported firms

and measures targeting the overall development of rural areas. Additionally, it provides a more accurate aggregate picture of regional policy impacts and it partially addresses the bias caused by general equilibrium effects. Furthermore, the analysis shows that this methodology is relevant for assessing the impacts of regional programmes where there are important intra-regional general equilibrium effects (i.e. combined effects of CAP Pillar 1 and Pillar 2 support), but also for programmes targeting general economic development of regions, for example, EU regional policy, when the objective is to estimate the overall regional effects of

the programme, or when the micro-data are not available. Finally, while the applied estimation approach can be used for other Member States/regions or other types of regional policies, the list of chosen covariates to control for selection bias needs to be adjusted according to the specificities of a particular programme and data structure. ∎

Read the full paper!

Table 1. **The estimated M123 (FP-RDP) effects* on the food processing sector for the alternative evaluation methodologies (a binary quasi-experimental approach)**

Impact indicator	PSM-DID (65 control variables)	Modified MDM (65 control variables)	CEM-PSM-DID (15 control variables)	CEM (weighted regression with 15 control variables)
The number of food processing firms	-	-	-	-
I. ATT-DID (per supported region)	1.94	1.90	0.26	0.32
II. ATT-DID (per country, I x 270 regions)	**522.72**	**513.00**	**70.65**	**86.40**
III. Effect of other factors (IV - II)	3,098	3,108	3,550	3,535
IV. Total effect (Poland) (2009-2016)	3,621	3,621	3,621	3,621
The number of exiting food processing firms	-	-	-	-
I. ATT-DID (per supported region)	6.27	4.90	3.97	8.45
II. ATT-DID (per country, I x 270 regions)	**1,692**	**1,323**	**1,071**	**2,281**
III. Effect of other factors (IV - II)	11,319	11,688	11,940	10,730
IV. Total effect (Poland) (2009-2016)	13,011	13,011	13,011	13,011
Employment in food processing sector	-	-	-	-
I. ATT-DID (per supported region)	-102.04	-214.10	-168.60	-57.80
II. ATT-DID (per country, I x 270 regions)	**-27,552**	**-57,807**	**-45,522**	**-15,606**
III. Effect of other factors (IV - II)	34,162	64,417	52,132	22,216
IV. Total effect (Poland) (2013-2006)	6,610	6,610	6,610	6,610

* estimated programme effects are shown in rows I. (per supported region) and II. (per country) Source: Michalek et.al. (2020)

1. The Measure 123 aimed at overcoming the structural problems faced by food processors located in rural areas. By targeting modernization and increasing production efficiency and productivity the support was expected to lead to increase the value added and enhance the competitiveness of the supported food chain enterprises. The measure aimed at improvement of the overall performance of the beneficiary enterprise through: introduction of new and/or modernization of the existing facilities and improvement of their use; introduction of new products, processes and technologies; reduction of production costs; reaching compliance with EU standards (applied to new EU member states); environmental protection (including decreasing pollutant emissions and waste), improving occupational health and safety, and hygiene conditions, etc.
2. Although the regional approach corrects for the intra-regional general equilibrium effects, it may still suffer from the bias resulted from the inter-regional general equilibrium effect of the impacts of the RDP when the support allocated in one region impacts the performance of non-supported food processing firms from other regions. In general, the share of the RDP support is low in the total economy; hence, it is expected to have an insignificant economy-wide or interregional effects such as on labour wages level or credit costs (interest rate).
3. For example, a positive growth in the total number of firms combined with a high firm exit rate indicates a larger structural change as compared to a situation when the increase in the total number of firms is the same, but the firm exit rate is lower. The former case also implies a higher entry rate of new firms as compared to the latter.
4. Our results show that, although the M 123 support contributed to an increase of employment in supported food processing enterprises, this increase was much lower than in the comparable (matched) group of non-supported units. The effect of the M 12 was therefore negative (confirmed by all methodologies applied).

EUROPEAN EVALUATION HELPDESK
FOR RURAL DEVELOPMENT
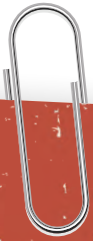
Back to BASICS:
The Farm Accountancy Data Network

Farm level data is essential for monitoring and evaluating the achievements of the CAP and for better targeting of CAP support.

The Farm Accountancy Data Network (FADN) plays a crucial role in this endeavour. It is the only instrument that provides harmonised micro-economic data for farms in the EU. Derived from national surveys, the data is not only used to evaluate the income of agricultural holdings, but also, increasingly, to assess the overall achievements and impacts of the Common Agricultural Policy.

What data is included in FADN?

The information collected annually in the Member States for each of the 80,000 FADN sample farms includes approximately 1000 variables and refers to:

- Physical and structural data (location, crop areas, livestock numbers, etc.)
- Economic and financial data (production value of the different crops, stocks, sales, purchases, production costs, assets, liabilities, production quotas and subsidies, etc.)

Data is collected through a Liaison Agency in each Member State or nominated bodies. The sample in each Member State is stratified according to region, economic size and type of farming to ensure its representativeness. The FADN sample does, however, not cover all agricultural holdings, but only those which due to their size are considered to be commercial.

The quality of data in FADN in terms of completeness and time consistency is one if its main strengths, since a sophisticated quality check is done regularly.

How is FADN used and by whom?

The European Commission is one of the primary users of FADN data. It periodically publishes a set of statistics, which can be found in the Standard Results database. It uses FADN as an information source for the Agri-Food-Data portal (e.g. economic reports on EU farming) and for EU level evaluations and studies.

Send your questions to:
info@ruralevaluation.eu

EUROPEAN
EVALUATION
HELPDESK
FOR RURAL DEVELOPMENT

Evaluators in the Member States use FADN as a generally available and cost-efficient information basis to assess RDP effects. While initially FADN had only been used for economic analysis, more and more its potentials for the assessment of environmental impacts of the CAP (e.g. GHG emissions) are explored. Since it is however not an environmental database there are some challenges in its use (e.g. lack of information on management practices) which require to further enlarge the data-set or to cross it with other data sources (e.g. IACS, national reports for GHG and ammonia emissions).

For micro-level analysis, but also as an input into models, FADN data is usually combined with information on the participation in RDP measures, stemming from the information system of the RDP Managing Authority and Paying Agency. The advantage of FADN data here concerns its consistency in the collection and processing of the data over years.

Some advanced evaluation approaches (e.g. PSM-DiD) are dependent on the availability of panel data for the investigated period. Panel data however requires the replication of the same units over time: ideally prior to and after the implementation of the given measures of an RDP. For FADN data this may be a challenge if a long period is to be analysed, since farms in the survey may be regularly replaced by new respondents.
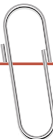
The representativeness of the FADN sample in general and with respect to certain data items and subsamples can be further improved through adding extra questions to the national FADN survey (on innovation, environment) and by enlarging FADN with satellite-samples. For the consideration of the RDP effects on the smallest farms (those under the threshold levels applicable to FADN farms) the evaluators usually complement FADN data with the help of some additional surveys. If FADN or any other sample of farms is used, the evaluator will therefore always seek to understand how the sample relates to the whole population, (e.g. which segment of the supported farms is included in the FADN sample).

Delays in the provision of FADN data every two years can present a challenge to evaluators. However, this data can be complemented with other data, such as, more recent data from national data sources, from farm annual accounts or additional surveys.

Over the years FADN has established itself as an indispensable data source for evaluations and has been constantly developed. Member States and the European Commission are undertaking many initiatives to make FADN data even more useful for evaluations in the future.

The Commission will propose legislation to convert its Farm Accountancy Data Network into the Farm Sustainability Data Network with a view to contribute to a wide uptake of sustainable farming practices and collect data on the Farm to Fork and Biodiversity Strategies' targets and other sustainability indicators[5] (Q2 2022).

Where to find
more information
about FADN?

5. Farm to Fork strategy COM/2020/381 final

📣 UPCOMING AND PAST EVENTS CALENDAR

Please note, due to the current COVID-19 situation please be aware that many events are being cancelled or postponed. Therefore, this list is only indicative, and we encourage you to check on the respective websites of the events you are interested in attending to see the current status of the event.

- **Online - 13-14 May 2020 - 13th Good Practice Workshop 'Data management for the assessment of RDP effects':** Organised by the Evaluation Helpdesk this Good Practice Workshop has the overall objective to reflect on the 2019 experiences in relation to data management, with a view to preparing the ex post evaluation of RDPs 2014-2020 and help identifying necessary lessons relevant for future monitoring and evaluation.
  Read more >>>

- **Online - 26 May 2020 - 13th Rural Networks Steering Group:** The meeting provided an update on the state of play of the CAP Reform and other relevant EU policy initiatives.
  Read more >>>

- **Online - 28-29 September - 14th Good Practice Workshop, 'Assessment of resource efficiency and climate':** Organised by the Evaluation Helpdesk this Good Practice Workshop has the overall objective to reflect on the 2019 experiences in relation to the assessment of resource efficiency and climate action, with a view to preparing the ex post evaluation of RDPs 2014-2020 and help identifying necessary lessons for the related future CAP indicators.
  Read more >>>

- **BE - December 2020 - 7th Rural Networks Assembly.**

What's Going on in YOUR Member State?

Share evaluation related events by emailing info@ruralevaluation.eu

EUROPEAN EVALUATION HELPDESK FOR RURAL DEVELOPMENT