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The use of FADN methodology to support the evaluation of business development plans in the RDP Sicily 2014-2020

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Abstract

Article 19(4) of Regulation (EU) No 1305/2013 provides that business start-up aid for young farmers, non-agricultural activities in rural areas and the development of small farms shall be conditional on the submission of a business plan. Therefore, this tool, also known as Farm Development Plan (FDP), is mandatory to verify the economic improvement of an investment under sub-measures 6.1 "Business start up aid for young farmers", 4.1 "Investments in agricultural holdings" and operation 6.4.a "Investments in creation and development of non-agricultural activities" so that rural development resources can be directed towards those project ideas which are consistent with the objectives and purposes of the rural development strategy and, thanks to the support, have the highest probability of success. The article presents the lesson learned from the Sicilian experience of designing a web-based tool for FDP submission, namely "PSAWeb Sicilia". This device allowed the Managing Authority (MA) of RDP Sicily 2014-2020 to make available an FDP scheme to users in compliance with EU obligations, consistent with the objectives and purposes of the Programme, as well as with the implementing and procedural provisions of regional calls. The computerised management of the FDPs ensured better coordination between the offices responsible for verifying and evaluating the proposals,

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while processing and analysis of aggregated data from over 8,400 business plans provided an in-depth knowledge of the investment needs in Sicilian agriculture and a better capacity to forecast the RDP potential response as well as some aspects of specific interest to the regional agricultural system. Thanks to PSAWeb Sicilia, in fact, a large amount of data at farm, sectoral, territorial and type of investment level was collected providing information of inestimable value not available from other data sources. The assessment of access requirements in terms of farms' economic size, economic-financial viability and profitability was ensured by borrowing principles and procedures from the Italian FADN. The cooperation between the MA and CREA-PB achieved several results. Firstly, the data collected combined with the monitoring data have been made available for the evaluation activity and for the communication to the public of the RDP implementation. This information will also be very useful both for better targeting interventions in 2021-22 and for reprogramming them in the future CAP. Finally, as a positive externality, the use of the application has contributed to increasing accounting knowledge among operators and technicians in the agricultural sector, so that it has become a teaching tool in some university courses.

Introduction

In 2016 CREA-PB and the Managing Authority (MA) of RDP Sicily 2014-2020 started a collaboration for the design and development of PSAWeb Sicilia, an easy-to-use application made available to potential beneficiaries of some investment measures to draw up, in compliance with EU obligations, the farm development plan.

The experience gained with the devices adopted by the MA in the previous programming periods did not allow to adequately assess the projects due to shortcomings in the detection of income and profitability indicators of the recipient farms, necessary to support an accurate assessment of the economic and financial viability of projects; furthermore, the lack of attention paid to the assessment of the needs and objectives of the intervention did not allow to properly direct the support towards the projects more consistent with the results and the expected impacts of the measures (Agriconsulting, 2017; European Court of Auditors, 2017).

Having data available for monitoring and evaluation, to improve programme management, and to communicate results without burdening regional offices was a clear need that emerged during the 2007-2013 programming period (Agriconsulting, 2017). As part of the obligations of

the ex-ante conditionality of the Programme, with the launch of the RDP Sicily 2014-2020, the same regional offices were also called upon to organise the production and gathering of data to be made available to the evaluators along with the information provided by the monitoring system (Article 76 of Regulation (EU) No. 1305/2013).

PSAWeb Sicilia was therefore designed and developed to clearly and accurately represent the structural characteristics of farms, the sectors of intervention, the investment plan and its purposes, consistent with the objectives of the RDP as well as with the constraints imposed by the call and by the implementing provisions of the sub-measures/operations.

In addition to ensuring a better capacity of the Regional Administration to verify the eligibility conditions set out in the calls, a rigorous assessment of the economic and financial viability of the project proposals is provided by the connection between PSAWeb Sicilia with the web application "Bilancio semplificato RICA" (BS), that is a simplified form of the Italian FADN accounting software (GAIA). In fact, in accordance with official accounting criteria, BS allows the preparation of a complete financial report (balance sheet, income, profit and loss and equity statements), both for ex-ante and ex-post investment situation, and the calculation of the economic and social indicators chosen by the regional Administration.

The application was also designed and developed to ensure a better ability to verify and evaluate the priority requirements set by the Programme with the selection criteria as well as to measure the project's contribution to the achievement of the Focus Area target which sub-measures are related to.

The computerised management and the collection in a single database of over 8,400 Farm Development Plans (FDP), acquired up to January 2021 and related to the calls for sub-measures 4.1, 6.1 and operation 6.4.a, have allowed to the different regional branch offices responsible for the verification and evaluation of the FDPs both to access easily to data and to reach their full operational capability in order to make the management of the administrative processes more efficient in handling the appraisal of applications.

The collection of a wide range of data, given the number of observations and the level of detail, led to build a large dataset whose variety of information is not available from official statistical sources. The processing and analysis of this data has resulted in the production of statistics, thematic maps, reports made available for the evaluation of the Programme performance, together with the monitoring data, as well as to support the reprogramming of the interventions for the calls to be put out until 2022, and to build the rural development strategy in the future CAP.

No less important was also the role of PSAWeb Sicilia and its connection to the web-based financial application system (BS) in spreading the accounting knowledge among operators and technicians involved in preparing

the FDPs to apply to RDP calls. Moreover, University of Catania and other higher technical schools in the same Province showed great interest to use it for didactic purposes.

The paper, after exposing the context in which the activity was carried out and the methodological aspects underlying the design of the application, describes the advantages and results achieved thanks to its use. Finally, the paper concludes with an analysis of the medium-term perspectives and possible evolutions of the use of PSAWeb Sicilia.

1. Background

According to the provisions of the Commission Implementing Regulation (EU) 808/2014, the MA is required to make available to companies a FDP scheme for investment measures which, through the clear and detailed representation of the project idea, the characteristics of the farm, the timings and objectives to be achieved by the investment plan, allows the evaluation of the economic and financial viability of the project and the consistency with the objectives and results expected from the measure.

The experience gained with the use of the tools adopted by the MA in the previous programming periods (MS Excel sheet in the ROP Sicily 2000-2006, MS Access investment business plan (PAI) in the RDP Sicily 2007-2013) did not allow to adequately support the Administration in selecting the projects with the greatest chance of success and which best reflected the priorities defined by the Programme (Agriconsulting, 2017). The same limitations were pointed out by a study of the European Court of Auditors that investigated the role of the EU in supporting young farmers and promoting generational renewal. The study, conducted in the four Member States with the most relevant spending for the support of young farmers, France, Spain, Poland and Italy, found that in the regional case studies examined, including Sicily, support for generational renewal was based on an inadequately defined intervention logic, which did not ensure targeted support (European Court of Auditors, 2017). Moreover, it has been brought to the attention that insufficient data on the income and profitability of recipient farms, useful for better targeting support, were not collected and that lack of attention was paid to the assessment of the needs and objectives of the intervention since the expected results and impacts were not accurately recorded.

The recommendations of the Court of Auditors addressed to the Commission and the Member States underlined the importance of promoting generational renewal by applying selection methods that prioritise interventions in favour of more qualified young farmers and less favoured

areas, that is what was done in the current programming period, and by implementing tools, such as business plans, so that it is possible to "prioritise beneficiaries likely to increase the viability of their holdings thanks to the aid" (European Court of Auditors, 2017). The business plans examined in the case studies were found to be of variable quality and their goals were often poorly designed. Moreover, with a view to improving the monitoring and evaluation framework, it was also recommended to draw on best practices EU Member States in their monitoring systems and evaluation reports. In this regard, the experience of Emilia Romagna was reported which, in the ex-post evaluation of the 2007-2013 RDP, used the data of the FADN to carry out a counterfactual analysis, among a sample of young farmers beneficiaries of measure 112 and two samples of farmers, reclassified by age. This analysis was based on elements such as standard production, gross value added, number of work units, farm size, labour productivity and land productivity.

Along with the need to improve the capacity for evaluating the projects, the ex-post evaluation of the 2007-2013 programming period also revealed the need for a better supervision action, functional to the monitoring and evaluation needs of the Programme, both in-itinere and ex-post, and to the communication of its results. In the face of greater flexibility and adaptability to changing monitoring needs, however, the need not to burden the already onerous management by the regional offices involved in the implementation of the RDP was stressed (Agriconsulting, 2017). These are the same regional offices that, in order to comply the ex-ante conditionalities of the RDP Sicily 2014-2020, were also called to guarantee the existence of a statistical information system to undertake evaluations to assess the effectiveness and impact of the Programme (Annex XI of the (EU) Regulation 1303/2013) and to organise the production and gathering of data to be made available to the evaluators along with the information provided by the monitoring system (Article 76 of Regulation (EU) No. 1305/2013).

Monitoring and evaluation activities, aimed to assess the impact, effectiveness, efficiency and relevance of the interventions and to contribute to better targeted support for rural development (art. 68 Reg. (EU) no. 1305/2013), are based on a series of qualitative and quantitative data on the progress and achievements of rural development policy. In order to overcome the critical issues encountered in this area during the previous programming period and to meet the various needs of knowledge, in 2016 the MA of RDP Sicily 2014-2020 and CREA-PB started a collaborative activity aimed to improve and make the Programme implementation more effective with particular reference to the management procedures of some investment measures and the need of knowledge of some specific aspects of their implementation. Right from the start it was found that most of the needs of knowledge and critical aspects outlined above are linked by the business plan

which, in addition to meeting specific regulatory constraints, has shown that it can represent, if accompanied by suitable tools and procedures, a valuable source of information of strategic importance for planning and monitoring activities. An example of this kind is the first experimentation, carried out by CREA-PB, related to the design of a tool for the evaluation of the business plans required for the application to "young farmers package" (sub-measure 6.1.1 in combination with sub-measure 4.1.1) of the RDP Abruzzo 2014-2020. "PSAWeb Sicilia" design and development were inspired by this experience and they were conceived within the Italian FADN project. This is another element of the various software applications and services that CREA-PB has developed to implement the accounting survey and to offer tools to support the business management of farms with the main objective of disseminating the vast information assets of the FADN and enhancing the experience gained in over fifty years of managing the FADN in Italy.

In fact, as the Italian Liaison Agency for the European FADN, pursuant to Regulation No 79/65/ECC setting up a network for the collection of accountancy data on the incomes and business operation of agricultural holdings in the European Economic Community, CREA-PB has as its primary objective the collection of structural and accountancy data of farms to satisfy the information needs of the European Union for the definition and evaluation of the Community Agricultural Policy. To this end, CREA-PB has developed, in line with the provisions of the abovementioned regulation, its own accounting methodology which has resulted in a double-entry management accounting software (GAIA) which allows, even to those who do not possess specific accounting knowledge, to collect, classify, determinate, control and analyse the facts pertinent to the management, both of those properly accounting and of those of an extra-accounting nature typical of the farm. GAIA, in fact, was designed not only for the collection of FADN data but also as a tool free of charge for farmers wishing to keep accounts according to a solid methodology that allows the analysis of the results obtained on the basis of common rules. One of the main characteristics of the Italian FADN accounting method is its compatibility with the rules laid down by specific EU legislation, with those of the statutory financial statements and the European system of national and regional accounts (ESA) as well as with international accounting standards (IAS/IFRS).

By virtue of the experience acquired with the FADN management in Italy, the knowledge and skills of researchers, technologists and programmer analysts, CREA-PB has conceived and implemented a series of web applications which, expanding the field of application of FADN methodology, were put at the service of farmers and advisors, whether they are involved in the FADN survey or external. A further objective of CREA-PB is precisely

the promotion of bookkeeping in farms. In Italy, in fact, the use of the annual budget is not yet widespread among operators in the agricultural sector since the national tax legislation does not require sole proprietorship and simple partnership farms, i.e. most of the agricultural holdings in Italy, to keep accounts. Therefore, CREA-PB developed the web procedure "Bilancio Semplificato RICA" (BS) in order to minimise the amount of data required by FADN survey and to reach an increasingly wider audience of farms outside the FADN survey, without sacrificing the FADN accounting methodology rigor. Efforts have been focused successfully on making easier the phase of collecting technical and economic data, preparatory both to the definition of the economic situation, according to the FADN methodology accounting scheme, and to the assessment of the level of competitiveness of the farm. The BS therefore represents a decision support tool which allows to measure production results and to compare them with technical and economic average data, used as benchmarks, relating to homogeneous groups of farms (by geographical area, type of farming and economic size) from the Italian FADN database.

Furthermore, the aforementioned characteristics, its ease of use and usability through the web have made the BS a suitable tool for assessing the economic and financial viability of FDPs.

Starting from these assumptions, the connection between PSAWeb Sicilia and BS allowed to import into each FDP, in addition to the financial statement report prepared according to the income statement and balance sheet (ex ante and ex post situation), also specific economic and social indicators chosen by the regional administration to assess projects submitted under the various sub-measures/operations. The use of the BS has not been made mandatory for the FDP preparation but it has been given the faculty to present the financial statements in another form, as is the case with the official financial statements filed by the companies subject to the obligation according to the provisions of the national law. In any case, almost all users of PSAWeb Sicilia used the BS for the presentation of financial statements and this allowed the regional administration to have a considerable amount of computerised accounting data based on the same methodology and therefore homogeneous.

2. Materials and methods

The MA of the RDP Sicily 2014-2020 since November 2016 has adopted, for some investment measures, PSAWeb Sicilia which allowed the acquisition, storage and computerised management of 8,422 FDPs ensuring a better and

more efficient implementation of the Programme and a significant support to knowledge for the evaluation and reprogramming of the interventions of some investment measures[1].

The analysis phase of the information needs that preceded the design of the device was aimed to:

- ensure the consistency and completeness of the data set necessary to evaluate the projects in a logic of complementarity with the information already contained in the application submitted to the Italian Paying Agency (AGEA);
- allow the collection of information not directly addressed to evaluate the single project as to provide an overall interpretation of the needs and characteristics of farms in the regional agricultural system, with particular reference to irrigation systems, employment, equipment, type of land tenure, characteristics of young farmers;
- get an overview of specific territorial aspects (Natura 2000 areas, less favoured areas, rural areas according to the National Strategic Plan) with aggregations at regional, provincial and municipal level.

PSAWeb Sicilia has been developed in four different versions according to the type of sub-measure/operation, ordinary or package, and the related eligibility requirements, selection criteria and type of eligible expenses.

The trial was started when the first sub-measure 4.1 call was published in 2016 and continued with the calls for sub-measure 6.1 (2017), operation 6.4.a (2017 and 2018) and sub-measure 4.1 (2020).

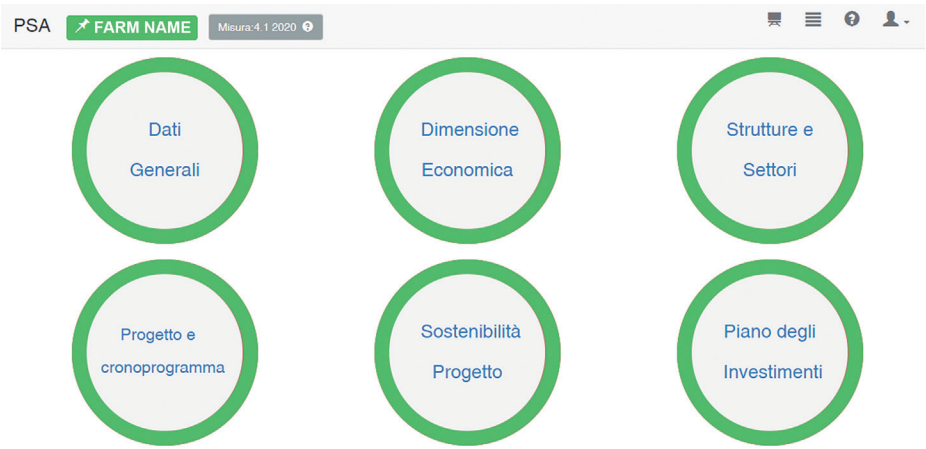
PSAWeb Sicilia, first of all, has responded to the Administration's need to make an FDP scheme available to users, in compliance with EU obligations (Reg (EU) 808/2014), consistent with the objectives and purposes of the Programme as well as with the implementing provisions and procedures of the regional calls.

Conceived as a standardised and modular tool (sub-measure/operation), PSAWeb Sicilia has generated a clear and accurate description of the structural elements of the farm, the sectors of intervention, the investment plan and its purposes.

Since the device has been specifically designed for the needs and characteristics of the RDP Sicily 2014-2020 and sub-measures/operations that require its use, it allows to capture all the relevant features by providing various innovative elements with respect to the methodologies and tools used in past programming periods.

1. Sub-measure 4.1 "Investments in agricultural holdings" (Calls, 2016, 2020); sub-measure 6.1 "Business start up aid for young farmers" (bando 2017); operation 6.4.a "Investments in the creation and development of non-agricultural activities" (call 2017, de minimis scheme, and call 2018, Agritourism - approved state-aid scheme.

Figure 1 - PSAWeb Sicilia - Dashboard



Source: PSAWeb Sicilia (http://psa.psrsicilia.it).

A specific function has been implemented to facilitate the verification of some calls' eligibility conditions, with particular reference to the minimum economic size to access to the aid. In fact, PSAWeb Sicilia provides the automatic typology classification (economic size and type of farming) of the farms, on the basis of the official standard output coefficients tables (Reg. (EC) No. 1242/2008) and the regional coefficients of agricultural products not covered by the official tables. This function represents an important innovation which, thanks to its automation, helps users to classify farms. In fact, the typology classification algorithm provides a number of exceptions that make the manual calculation somewhat difficult, exposing it to a rather high risk of error.

As shown in the previous paragraph, the connection with the BS application of CREA-PB (http://bilanciosemplificatorica.crea.gov.it) allows to generate the income statement and balance sheet, ex-ante and ex-post investment, according to a single methodology valid for all users, i.e. the official accounting criteria, ensuring relevance and homogeneity to the data processed by the Administration; this connection allows to calculate, and to import into the FDP, the economic and social indicators adopted for each sub-measure/operation to assess the improvement in the overall performance of farms and the economic viability of the projects (Table 1).

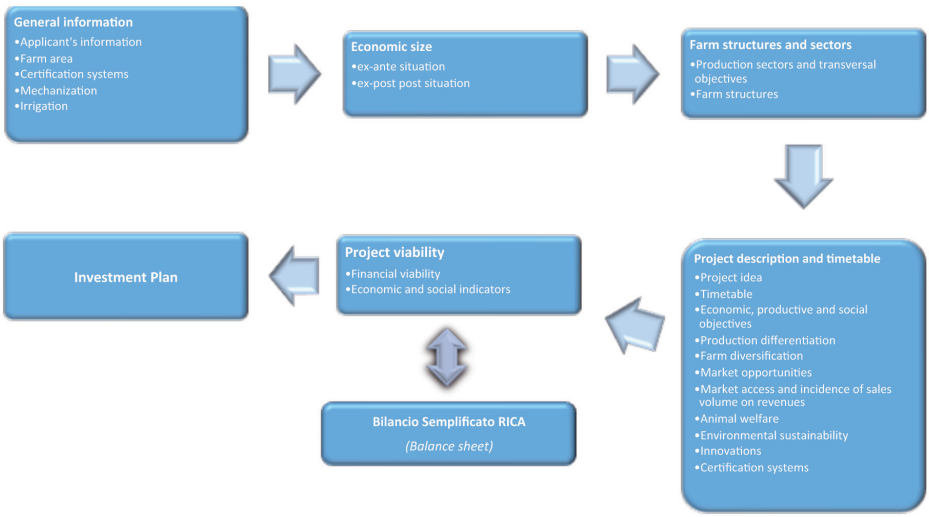
The preparation of guides to the FDP compilation, the organization of training sessions and seminars aimed to teach technicians how to use PSAWeb Sicilia and BS have supported users to submit FDPs.

Table 1 - Economic and social indicators by sub-measure/operation

Indicator description	Sub-measures/operations				
Economic indicators	**4.1 ***	**4.1 ****	**6.1**	**6.4.a de minimis**	**6.4.a State aid**
GSP/UAA (Gross land productivity)		X			
RC/TR (Incidence of direct costs)		X			
AV/UAA (Net land productivity)		X			
ROI = OI/KINV (Return on investment)	X	X	X		
TR/KFIX (Efficiency of fixed capital)	X	X	X		
VAt (Added value including non-characteristic revenues)	X	X	X		
R_OGA (profitability of other gainful activities)			X	X	X
RN (Farm profitability)			X	X	X
GSP (Gross saleable production)			X		
Social indicators					
AWU Annual work unit	X	X			
OI/FWU (Net profitability of family labour)	X	X	X		
VAt/AWU (Profitability of farm labour)	X	X	X		
Number of employees			X	X	X
Young males (< 40 years age)			X	X	X
Young females (< 40 anni di età)			X	X	X
Women			X	X	X
Disadvantaged people			X	X	X

* Call 4.1 2016; ** Call 4.1 2020.
Source: RDP Sicilia 2014-2020 Calls.

Figure 2 - Logical path of data entry in PSAWeb Sicilia



Source: CREA-PB.

Another specific feature of the application concerns the methods to input the information related to the investment plan aiming to allow multiple levels of analysis. Specifically, the unique association of each expenditure item provided by the investment plan with the general measurement objectives and with the specific sub-measure/operation objectives (Figure 3) has made possible:

- the clear identification of the objectives set and the expected effects of the investment plan, in order to assess the coherence of the project with the purposes of the sub-measure/operation;
- the verification of expenditure parameters for the attribution of some scores related to selection criteria;
- the quantification of the contribution of the intervention(s) to the achievement of the expected results of the Focus Area to which the sub-measure/operation is related to.

The automated checks during the data entry phase, together with a series of tests to be carried out before delivery, as well as the printing of the various verification reports, have ensured a high level of consistency of the information stored in the database. In addition, the computerised delivery procedure was designed to prevent further changes and ensure the integrity and official nature of the data transmitted to the Administration.

Data acquisition was addressed to the collection of elements of particular interest for policy makers, with reference, for instance, to applicants, type

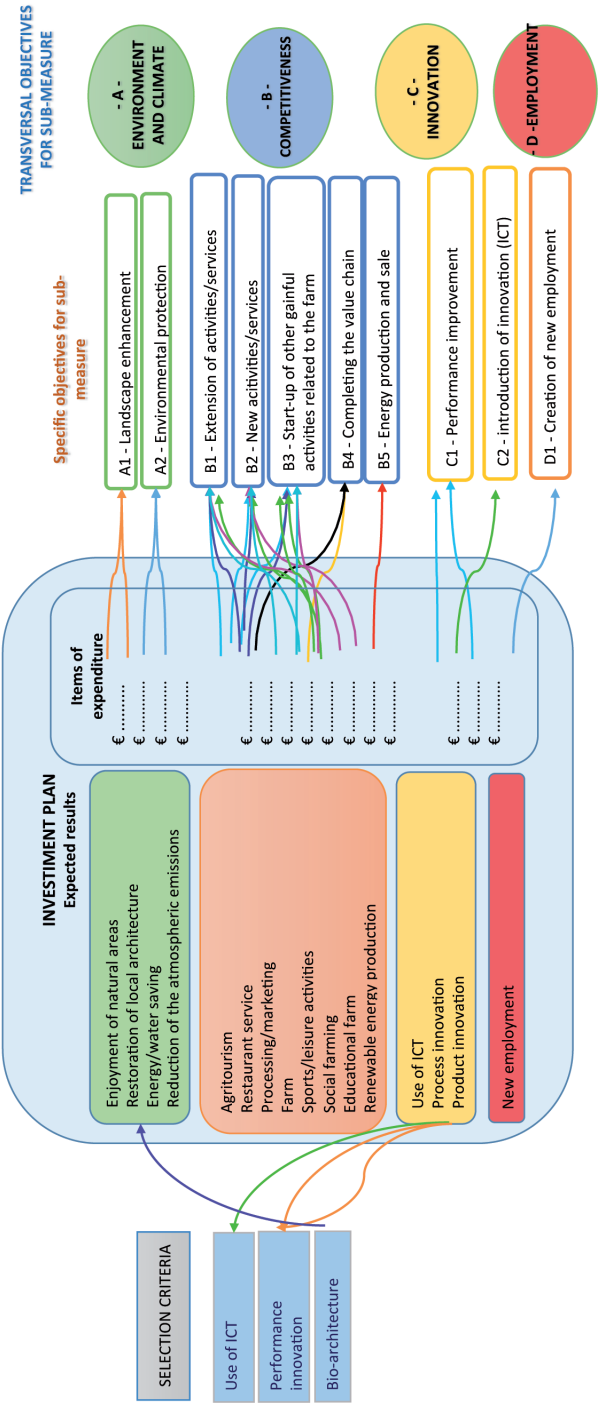


Figure 3 - Connection between the investment plan and transversal objectives, specific objectives and expected effects of sub-measure 6.4.a

Source: CREA-PB.

of land tenure, the physical farm size (Utilised Agricultural Area - UAA, Total Farm Area - TFA), UAA under NSP rural areas or less favoured areas, type of farming (TF), economic size (ES), labour, mechanisation, irrigation. Only a few of this data can be found on the Italian Informative Agricultural System (SIAN) but with several limitations to use and consult them in aggregate form and with this level of detail.

The following figure shows the main information stored in PSAWeb Sicilia Database by category.

3. Results

The experimentation of PSAWeb Sicilia application has broadened the scope of the "business plan". In addition to being a useful tool for farmers in guiding the development, modernization and competitiveness of their farms, it has also become a valid support for the MA, in assessing the consistency of the project idea with the objectives and purposes of the RDP. Moreover, it allows to verify the economic and financial viability of the project with particular attention to the income prospects of the recipient farms.

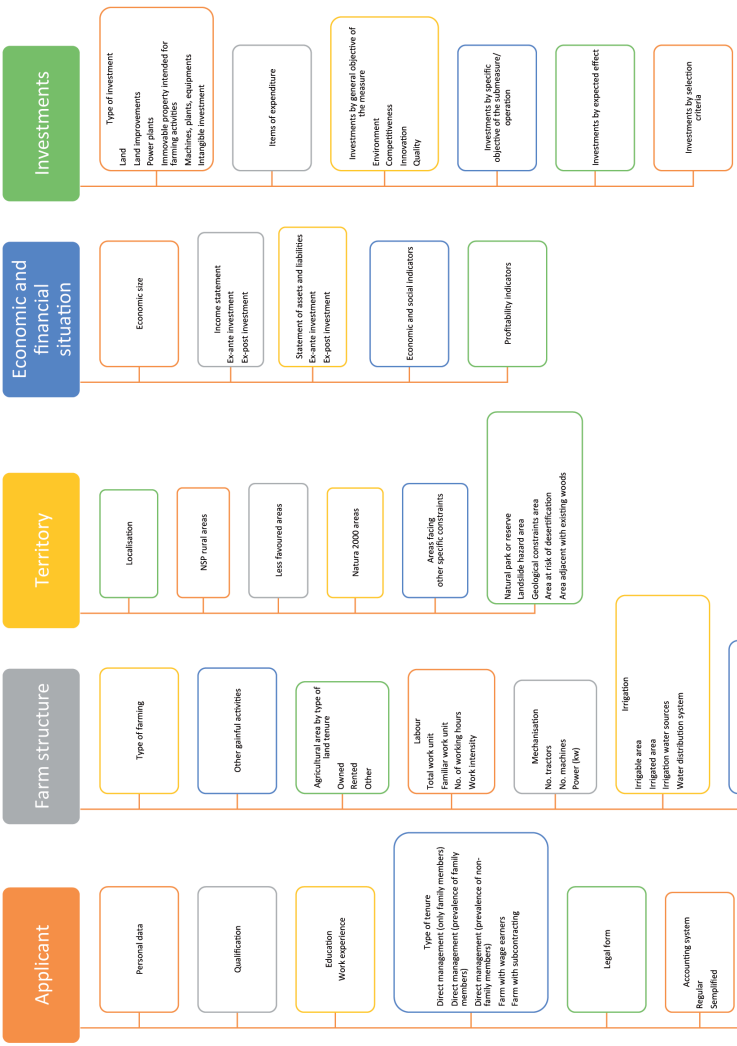
The MA, responsible for the implementation of the Programme which, for the programming period 2014-2020, is worth 2,213 million euros of public resources, has secured, for the first time, the computerised management of 8,422 FDPs, with a significant improvement in the coordination between central and branch offices responsible for assessing the admissibility, eligibility and technical-administrative investigation of the applications relating to sub-measures 4.1 and 6.1 and to operation 6.4.a.

At the time of the publication of call for sub-measure 4.1 in 2017, the offices managed 2,522 applications with an allocation of public resources equal to 100 million euros to which have been added 1,964 applications for the sub-measure 4.1 call in 2020 whose budget is 40 million euros.

Sub-measure 6.1, activated in 2017 with the "young farmers package" call and with a budget of 235 million euros, collected 3,189 applications. The package provides, along with the support for the establishment of the young farmer as a farm manager, the obligation to activate at least one of sub-measures 4.1, 8.1 or operation 6.4.a. This led to different configurations based on the composition of the investment package (Fig. 4).

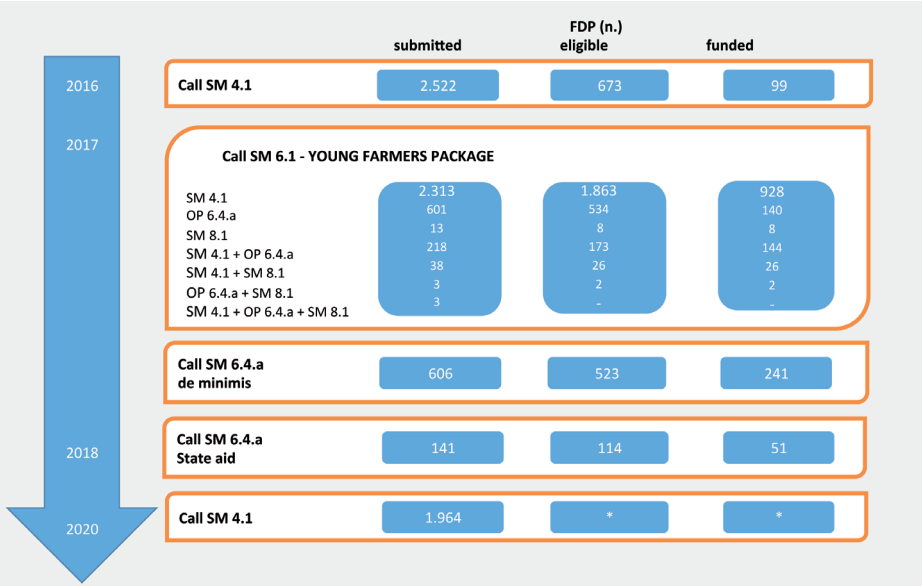
In order to support farm diversification, through the creation and development of non-agricultural activities, according to the provisions of operation 6.4.a, 606 applications were submitted under the call (de minimis scheme with a budget of 25 million euros) and 141 applications under the "Agritourism" call published in 2018 (state-aid scheme with a budget of 20 million euros).

Figure 4 - Main information stored in the PSAWeb Sicilia Database by category



Source: CREA-PB.

Figure 5 - FDPs submitted, eligible and recipient by sub-measure/operation



Source: our elaboration on PSAWeb Sicilia data (last update on 31/01/2021).

In terms of analysis, FDP data and information stored in the database ensure the same level of detail for the applications submitted as well as for the eligible to the technical-administrative investigation and for the recipient ones.

The varied information of the submitted FDPs gave a significant representation of the actual need of the regional agricultural system in terms of modernisation and restructuring (Agosta *et al.*, 2020a), of establishment of young farmers (Agosta *et al.*, 2020b), of farm diversification (Agosta *et al.*, 2020c; Agosta *et al.*, 2020d).

The next phase of analysis, carried out on the group of FDPs eligible for the technical-administrative investigation, highlighted the effectiveness of the selection criteria in addressing resources towards types of farms and investment plans responding to the strategic priorities for Sicilian agriculture.

In anticipation of the publication of new calls, the Administration was also able to carefully evaluate the opportunity to review certain selection criteria and access requirements, also developing simulations based, for example, on the hypothesis of a maximum expenditure ceiling of the investment or a reserve of resources in favour of production sectors (animal husbandry) or territories (small islands) less involved in the previous call.

The third level of analysis concerned the projects funded according to the budget of the calls and it was focused on the expected effects of the investment plans, in terms of transversal and specific objectives of the sub-measure/operation.

Along with the analyses of the individual sub-measures/operations, the study of the FDP data provided the Administration with important elements on specific aspects (Agosta *et al*., 2020e) capable of better corroborating the contribution of the reports on previous assessment activities and sectoral analysis (Cagliero, Cristiano, 2013). Thus, the MA has guaranteed the production and collection of data which, along with the monitoring data, could be used by the independent evaluator of the Programme.

Among the main achievements, it should be noted the contribution to the communication activities related to the implementation of the Programme and the strengthening of the culture of local partnership to plan, implement and evaluate the interventions.

Finally, the objective of spreading the accounting knowledge, a priority action of CREA-PB within the FADN activity, has also materialised with the training of students of the Department of Agriculture, Food and Environment of the University of Catania in the use of the PSAWeb in order to offer an education more in line both with the innovation needs of farms and with the development of professional profiles that can really improve the implementation of policies.

The role of CREA-PB, in the context of the collaboration with the MA, fully responds to the institution's objectives in in relation to:

- the development of methodological instruments and tools for the management of the available databases in order to strengthen the analysis of the impact of European, national and regional agricultural policies on the agri-food system and on the country's public budget;
- support and advice to regional administrations and to representatives of companies for the definition of policy tools;
- economic and social assessment of investment needs and their impact on the regional agricultural entrepreneurship.

In this perspective, the set of information stored by PSAWeb Sicilia integrates perfectly with the databases managed by CREA-PB, as the common variables adopt the same definitions and classifications, and represents an important and very rich source of data and information for specific analysis. An example of this kind is the in-depth analysis on the relationships between the land market and rents and sub-measures 6.1 and 4.1 of the RDP Sicily 2014-2020, carried out as part of the institutional survey "Land and Rental Market" carried out annually by CREA-PB since 1947.

Table 2 - Main products produced as part of the PSAWeb data management activity

Software, database, processed data	PSAWeb Sicilia (http://psa.psrsicilia.it) Database Statistical Processing Cartographic processing
Technical support material	PSAWeb Compilation guides related to sub-measures/operations Methodological notes: • "Metodologia registrazioni BilancioSemplificato e PSAWeb - Insediamento a cancello aperto"; • "Calcolo della Dimensione Economica con le Produzioni Standard"; Glossary of terms used in PSAWeb; Correaltion table between type of costs and macro-objectives per sub-measures/operations; Statistical simulation to support the preparation of calls; Statistical Processing and analysis.
Reports	1. Il fabbisogno di investimenti delle aziende agricole: una lettura della sottomisura 4.1 PSR Sicilia 2014-2020 attraverso i Piani di sviluppo aziendale, CREA, Roma, 2020 (www.reterurale.it/flex/cm/pages/ServeBLOB.php/L/IT/IDPagina/20909). 2. Insediamento giovani nel PSR Sicilia 2014-2020: la lettura del fabbisogno attraverso il Piano di sviluppo aziendale della sottomisura 6.1, CREA Roma, 2020 (www.reterurale.it/flex/cm/pages/ServeBLOB.php/L/IT/IDPagina/21422). 3. Il supporto alla diversificazione dell'attività agricola verso la creazione e lo sviluppo di attività extra-agricole: una lettura della operazione 6.4.a Agriturismo Aiuto in esenzione del PSR Sicilia 2014-2020 attraverso i Piani di sviluppo aziendale, CREA, Roma, 2020 (www.reterurale.it/flex/cm/pages/ServeBLOB.php/L/IT/IDPagina/21962). 4. Il supporto alla diversificazione dell'attività agricola verso la creazione e lo sviluppo di attività extra-agricole: una lettura dell'operazione 6.4.a in regime de minimis del PSR Sicilia 2014-2020 attraverso i Piani di Sviluppo Aziendale, CREA, Roma, 2020 (www.reterurale.it/flex/cm/pages/ServeBLOB.php/L/IT/IDPagina/21959). 5. Il fabbisogno di investimenti delle aziende agricole siciliane attraverso la lettura dei Piani di Sviluppo Aziendale del PSR Sicilia 2014-2020, CREA, Roma, 2020 (www.reterurale.it/flex/cm/pages/ServeBLOB.php/L/IT/IDPagina/22079).
Thematic focuses	Relazioni tra mercato fondiario e degli affitti e sottomisure 6.1 e 4.1 del PSR Sicilia 2014-2020, in Andrea Povellato, Davide Longhitano (a cura di): Indagine sul mercato fondiario in Italia – Rapporto Regionale, CREA, Roma, 2020 (www.crea.gov.it/documents/68457/0/CREA_PB_Rapporto_Regionale_MF_2019.pdf/c40dfe48-f87d-db70-fcba-95cc4914aa6b?t=1615395625164). Thematic studies: Labour, farm profitability, irrigation systems, mechanisation, land needs.

Source: CREA-PB.

4. Conclusions

The close collaboration between the MA and CREA-PB, aimed at designing, developing and adopting PSAWeb Sicilia, allowed to meet various institutional, knowledge and research needs. In particular, the Regional Administration has acquired a series of elements useful to verify the compliance with regulatory obligations, to assess the effectiveness and efficiency of the resources allocated for the implementation of generational renewal and to enhance the competitiveness and profitability of farms. CREA-PB obtained a set of data and information for carrying out analyses and studies in the research areas corresponding to the mission of CREA-PB.

Furthermore, the statistical basis generated by PSAWeb represents a rich source of information on rural development to be exploited both to improve the evaluation of the effectiveness and impact of some investment measures of the current programming period and to support the work of the regional technical groups engaged in the construction of the path for defining the post-2020 CAP strategy.

It should be emphasised that, although the observations collected by PSAWeb cannot be regarded as a representative sample, since they have not been selected according to appropriate statistical methods, their number – more than 8,400 in January 2021, to which we have to add the FDPs related to new calls that will be published until the end of RDP implementation – allows to outline an important cross-section of the Sicilian agricultural system, with a unique, broad and detailed perspective, thanks also to the specificity of the collected information.

By virtue of the modular and flexible structure one of the most interesting aspects of the application is the possibility of further developments in terms of functionality and replicability in other realities. For instance, the Regional Administration has expressed the need to monitor, with precision and immediacy, the progress of the implementation of the individual projects. This would allow, on the one hand, the analysis of the real effects of the investment at farm level and, on the other hand, the verification of the achievements of the sub-measures/operations objectives identified by the RDP.

Another option for strengthening the application could be the integration with data from other sources, such as AGEA. The eventual link with the farm file is already set up thanks to the alignment of the AGEA land use codes with the FADN Farm Return headings.

Particular attention should be paid to improve the application in order to monitor the implementation of interventions, even in progress. This aspect is of central importance in the results-based approach (New delivery model) introduced in the proposal for a regulation of the New CAP (COM (2018) 392 final) which links the payment of subsidies to the achievement of the objectives included in the Strategic Plan (COM (2018) 392, art. 65, no. 7).

Table 3 - Context indicators available on PSAWeb Sicilia

Dimension	Codes		Indicator	PSAWeb data
	PMEF 2021-2027	QCMV 2014 -2020		
Farms and farmers	C.12	C.17	Agricultural holdings (farms)	Number of agricultural holdings Agricultural size of the holdings - in utilised agricultural area (UAA) size classes Economic size of the holdings - in standard output (SO) classes Labour force - in persons and in annual work units (AWU) Average size of the holdings - physical (UAA), economic (standard output), labour in persons and AWU
	C.13	C.22	Farm labour force	Family labour force (sole holders working in the farm + members of the sole holder's family working in the farm) Non-family labour force
	C.14	C.23	Age structure of farm managers	Farm managers by age groups
	C.15	C.24	Agricultural training of farm managers	Basic education (qualification) Agricultural education (qualification)
	C.16 - **NEW**		New farmers	Number of young farmers
Agricultural land	C.17	C.18	Agricultural area	UAA per Type of farming
	C.18 - **NEW**	C.20	Irrigable area	Irrigable and irrigated area
	C.19	C.34	Farming in Natura 2000 areas	UAA
	C.20	C.32	Areas facing natural and other specific constraints (ANCs)	UAA per Type of area
	C.21 - **NEW**		Agricultural land covered with landscape features	UAA

Table 3 - Continued

Dimension	Codes		Indicator	PSAWeb data
	PMEF 2021-2027	**QCMV 2014 -2020**		
Livestock	C.22	C.21	Livestock number	LU (n.)
	C.23 - **NEW**		Livestock density	LU/UAA
Agricultural and farm income	C.24	C.25	Agricultural factor income	Agricultural factor income
	C.25	C.26	Agricultural entrepreneurial income	Agricultural entrepreneurial income
	C.26	-	Farm net value added	Farm net value added
	C.27	C.28	Gross fixed capital formation in agriculture	Fixed capital
Agricultural productivity	C.29	C.14 C.15 C.16	Labour productivity	Labour productivity

Source: our elaboration on QCMV 2014-2020, PMEF 2021-2027 and PSAWeb Sicilia (last update on 31/01/2021).

The logical evolution of PSAWeb Sicilia is the replicability of its use at national level, or where the activities of monitoring, evaluating and analysing the measures under the RDP and the NSP, are inefficient, inadequate or difficult.

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