



5.2 Organizing back-office services through digitalization: the case of Friuli-Venezia Giulia Region

Rationale

Under the 2023-2027 CAP Strategic Plans, Managing Authorities planned a mix of interventions aiming at strengthening farm advice and fostering all advisors' interconnection within AKIS. One of the novelties of this set of interventions is the back office, that aims at providing innovation support and more competent advice to farm advisors and other AKIS actors on a wide range of issues (use of natural resources, weather events and climate change, livestock, forestry and crop production, market conditions, business management, etc.).

In MSs, like Italy and its regions, that are characterized by a variety of farming systems and AKIS actors, defining a best-fitting model for the organization and the delivery of back-office services is challenging, due to the plurality of advisory services and competencies that are needed across the rural areas, as well as different advisory services systems throughout the 21 regions and autonomous provinces.

Furthermore, such a service, to be effective, must ensure trust and mutual recognition of roles and competences and enable, first, the conditions for collaboration between researchers and advisors.



Keywords

Innovation support services; advisory services; back office



Potential users

Managing authorities of the CAP strategic Plans, Regional development agencies



Country

Italy – Friuli-Venezia Giulia Region

Solution

The agricultural and rural development services of the Friuli-Venezia Giulia Region are regulated in compliance with the EU common agricultural policy (CAP) through a regional law setting up the Integrated System of Services for Agricultural and Rural Development (SISSAR), dedicated to information actions aimed at promoting use of environmentally friendly techniques and means of production, also with particular regard to the principles of organic farming, the health of operators and consumers (SISSAR A) and to highly specialized advices for specific production sectors (SISSAR B). SISSAR includes 16 services providers delivering a variety of services. Among them, ERSA has a core role and, for this, it has many relationships and it is trusted by advisors, farmers and researchers.

ERSA is the Regional Agency for Rural Development of the Autonomous Region Friuli Venezia Giulia (Italy). The Agency's main tasks are technical and scientific advice, research and experimentation, training of farmers aimed at innovation and knowledge transfer, divulgation, promotion of the quality labels and certification in agriculture, fishing and aquaculture.

For many years ERSA has been undertaking research and experimentation activities, exploring new cultivation techniques and technologies, ensuring phytosanitary plant protection plans, carrying out land soil classification and studies, animal husbandry experimentation. It also carries out studies and investigations for characterization, recovery and conservation of local genetic material of different vegetable species, giving special regard to their sustainability and of the ecosystem services provided, as well as plants genetic breeding aimed at creating new varieties suitable for cultivations under local conditions (i.e. soil, climate conditions). ERSA promotes ICT and digitalization in agriculture, making use of emerging technologies such as IoT, modelling and data processing. The entire system is intended to provide advanced services and Decision Support Systems to farmers and technicians consistent with the current concept and expectations of the Agricultural Knowledge and Innovation Systems (AKIS).

Other activities concerns: applied research and experimentation, phytosanitary monitoring, chemical and biotechnological lab assays and analyses, certification of plant propagating material, phytosanitary controls aimed at ensuring national and international marketing of plant materials and products, integrated pest management, promotion and valorization of regional agri-food productions, monitoring activities and regional lists of organic producers, agricultural statistics and dissemination of economic information on market trends concerning the primary sector, fields trials, ect. All these activities are carried out in collaboration with Universities and Research Centers.

The Agency organizes training courses for advisors and workshops addressed to farmers.

ERSA has developed DSS tools particularly an ICT tool aimed at transferring knowledge in agriculture, dissemination of research and experimentation results to farmers, technicians and stakeholders named AgriCS (i.e. agriculture, knowledge and development). AgriCS was developed as a pilot project under the RDP 2014-2020 (EU Reg. no. 1305/2013) of the Autonomous Region Friuli-Venezia Giulia. Measure 1.2 – Knowledge transfer and information.

Building on this and ERSA previous experiences and back-ground for knowledge transfer in agriculture through ICT and digitalisation, the Friuli-Venezia Giulia Region has decided to organize the Back-Office around DSS tools.

In practice...

According to the CAP Strategic Plan, the back-office Intervention has the aim to:

- realize, empower and integrate monitoring networks in order to collect data, analyses (lab assays also), information including results gathered through experimental projects/activities
- realize and make available regional/national/international data bases and data sets to advisors and to the AKIS system
- develop and make available digital tools aimed at processing data as well as carry out complex modelling analyses (e.g. DSS, A.I., etc.)
- networking and virtual communities among AKIS subjects, in particular: advisors, researchers, CAP Network at regional, national and international level

Grounding on this, AgriCS will be the core of the Back-office of Friuli Venezia Giulia region. This tool tackles different issues, like climate change, efficient use of resources at farm level, and includes:

- Phytosanitary prediction models
- Meteorological data and related agricultural scenarios in the short term (i.e. day by day simulation over 1 year). Meteorological data are provided and processed hourly or daily
- DSS tools dedicated to farm techniques consisting in simulations based on information or techniques adopted by the farm and provided by the users, combining informative layers provided directly by the ICT platform
- Mathematical models dealing with plants pests and diseases dynamics (regional areas or at farm level)
- Mathematical models dedicated to agronomic topics (at farm level)
- Agro-meteorological scenarios (at territorial level)
- Soil informative layers: information processed by ERSA, data collected through studies and land classification surveys, implementation and conservation of a dedicated GIS system
- Farm data: information on techniques adopted by the farm, provided by the users

Models can be used as DSS by farmers and technicians. ERSA technicians can take advantage of these DSS to plan different agricultural experimentations.

Practical implications for replicability

Friuli-Venezia Giulia Region established the back-office upon the existing agency that has a with a strong background and a previous experience for knowledge transfer in agriculture through ICT tools and digitalization.

However, some provisions are needed along with:

- Dedicated budget to implement the back-office under art. 78 Reg EU 2021/2015;
- Clear definition of functions and boundaries in relation to the activities provided under the daily agency activities.

Benefits

- The presence of Agencies at territorial level and their interconnections within the local AKIS represents an added value for the implementation of the AKIS strategy.
- The previous experiences and back-ground for knowledge transfer in agriculture through ICT and digitalisation has been important in the identification of the back-office model.
- Less administrative burden to award the tender.

Watch this AKIS-in-Practice!



Further information

[Resolution of the Regional Council 17 February 2023, no. 303 LR 5/2006. Programming of the Integrated System of Agricultural and of agricultural and rural development services for the period 2022-2024. Annual update for 2023 \(IT\)](#)
AgriCS website: <https://agrics.regione.fvg.it/agricsweb/>

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