CONCLUSIONS FROM THE 61ST IALB, 11TH EUFRAS, 8TH SEASN INTERNATIONAL CONGRESS IN GALICIA, 2022

The path of knowledge and innovation transfer through extension to sustainable rural development

CONGRESS ORGANIZATIONAL COMMITTEE

President: Antonio López Diaz
Dean of the University of Santiago de Compostela

Members:
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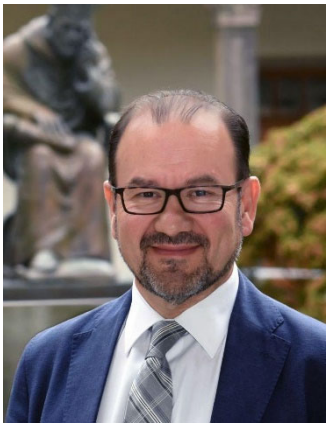
University of Santiago de Compostela
Lugo Campus
21-25 June 2022

CONGRESS OPENING

Antonio López Díaz:	Dean of the University of Santiago de Compostela
José González Vázquez:	Minister of Rural Environment, Xunta de Galicia
Anton Stöckli:	Vicepresident of IALB
	Minister of Agriculture, Switzerland
	Representing Florian Herzog, President of IALB
Jussi Juhola	President of EUFRAS
	Proagria. Finland
Igor Hrovatic	President of SEASN
	Croatia
Florentino Díaz Rodríguez	Organizational Committee Coordinator
	University of Santiago de Compostela



Antonio López Díaz

Dean of USC

It is an honor for the University of Santiago de Compostela to host the 61st IALB, 11th EUFRAS, and 8th SEASN International Conference in June of this year, 2022. These conferences of the three great networks of European rural advisors take place in the Lugo Campus.

The path of knowledge and innovation through the extension towards the development of a sustainable rural is the backbone of this super meeting which gathers the biggest state and international experts in the heart of a province and region, as are Lugo and Galicia, which have a big part of their identity and essence in the rural field.

The role of advisores, in both public and private realms, is of the utmost importance to achieve the development goals in terms of sustainability. Goals which create short term challenges on the social and environmental horizon, goals which demand that we committ ourselves more to the Earth.

Lugo-- as the campus of the University of Santiago de Compostela specialized in the rural field and referred to as Campus Terra, or ¨Earth Campus,¨ because it is focused on the sustainable development of activities related to the field-- is an unbeatable place to hold teh debates which certainly will be enriching and of the utmost interest for public administrations, private businesses, and for the rural professionals in Galicia, in Spain, and in Europe.

José González Vázquez

Minister of Rural Environment.

Xunta de Galicia

Every action and effort which goes along the lines of improving the conditions of the rural environment are a priority for the Ministry of Rural Environment of Galicia. In this sense, within the Law of Land Recovery, they are already implementing this plan through about 20 model villages which represent close to 525 hectares in almost 8,600 plots of 2,200 owners, and more than a dozen agroforestry zones, while simultaneously promoting other valuable initiatives such as Joint Management Groupings.

After intense work, this Law of Land Recovery not only allows us to combat the depopulation through the revaluation of the land, but also serves to guarantee that Galicia continues to be a quality producer.

At the same time, the processing continues to advance for the Law of Food Quality, to prioritize --along with quality-- the differentiation, transformation, and commercialization in benefits of our producers, which demonstrates the Xunta's definitive support of quality and singularity, promoting and protecting our products through 36 Galician seals of differentiated quality.

With this, we hope to generate richness in the rural and to keep the population, while advancing in the anticipation fo forest fires, a problem which threatens our countryside and repeats itself every year in our community.

To carry out all of these programs and actions, we have designed an ambitious training offer through the Galician Agency of Food Quality (AGACAL) and the research centers of the Ministry of Rural Environment that work hand in hand with the universities of Galicia, as well as the Agricultural Knowledge and Innovation Systems (AKIS), a valuable tool for applied farm research which allows the transfer of knowledge through people, organizations, and institutions towards the empowerment of the primary sector. These topics without a doubt will all be discussed during this International Congress which begins today, and which surely will find important results.

Florian Herzog
President of IALB

Speaking on his behalf is Anton Stöckli

I would like to welcome you to Lugo for the 61st annual conference of the IALB. A big thank you to our hosts at the University of Santiago de Compostela who, after two years of online meetings related to the pandemic, allow us to once again meet and network in person.

Climate change, the pandemic, and war in Europe: we find ourselves in a new age of risks and crises, with huge impacts, challenges, and also tasks for agriculture and forestry. The uncertainty of the markets regarding supllies which is heightened by increased inflation and an increase in energy prices, is felt directly by farms. On the other hand, agriculture and forestry have a key part in the energetic transtion, now more accelerated, and in the expansion of circular economy, as well as in the increase of self-sufficiency and food security in Europe. Agriculture and forestry face challenges on many levels; the Agricultural Knowledge and Innovation Systems (AKIS) that work is essential for resilience and the ability to innovate in the agricultural sector. The 61st IALB Conference is dedicated to this and to the integration of education and the extension:

¨The path of knowledge and innovation transfer through extension to sustainable rural development.¨

Agriculture and foresttry are under an unprecedented amount of pressure to innovate; farms have a greater need for knowledge and they should be supported in the best way possible to face the aformentioned challenges. Within the AKIS, advisory and education services carry out an important role as knowledge-mediators and bridge-builders between the science and the practice. In this context, this year's conference will be another valuable oportunity to learn from one another about the new possibilities and ways of facing the challenges and changes which accompany them, and to become familiar with support instruments, the focuses, and methods such as orientation and education within the AKIS can achieve sustainable effects and support European agriculture and forestry in the best way possible.

Knowlege - network- experience!

The IALB Conference is a unique opportunity to broaden our horizons and return home with new ideas for our own activities. Therefore, I ask all of you who actively participate in the workshops and debates of the following days, that you work together to guarantee that this meeting brings an extra value to each person, but also a valuable contribution to the development of work in education and extension of the agricultural knowledge innovation system in general. Take advantage of your visit to the IALB Conference to make contacts and broaden your professional network. IALB is a constantly-growing network to exchange information and experiences beyond national borders. New members are always welcome (www.ialb.org). To encourage this exchange and continue developing cometences, the ample training and certification program for advisors, CECRA, (www.cecra.net) is also available.

I hope all conference participants have exciting and instructive days in Lugo, and that they broaden their network and exchange experiences. You and the whole AKIS will reap the benefits!

Jussi Juhola

President of EUFRAS

Ladies and Gentlemen, friends

Finally, after an extended period on living under exceptional circumstances we're able to gather together for our traditional IALB/EUFRAS/SEASN annual summer conference this time is Galicia, Spain. The past few years have shown us that circumstances can change almost in a heartbeat. When the pandemic first hit a little over two years ago, we had to learn how to live under strict restrictions and lockdown due to a global pandemic. This forced the advisory community to rethink ways of reaching the farmers. We couldn't meet the farmers face to face, so we had to digitalize. Within a matter of a few months the advisory community had digitalized in Europe, using Zoom or Teams for meetings and events had become an everyday activity. Life went on like it always had, we'd been able to adapt to the new situation. We as a community thought of new ways to transfer the knowledge needed on to the farming community. We were able to hold on to our traditional networking events as well, using technology to our advantage and I'm proud to say, we succeeded.

Finally come 2022 the restrictions imposed due to the global pandemic have eased enough to be able to meet face to face, but then we we're yet again faced with a new situation as a war broke out in Europe. The on-going conflict in Ukraine has already had unprecedented effects on global logistics chains. This has caused a dramatic increase in prices of vital production inputs for farming. Once again, we as advisors are faced with a new challenge, we need to be able to help the farmers overcome the hike in prices and ensure production all over Europe. We do not yet know the full effects of the on-going conflict, but already there are indications of worldwide food shortages etc. Despite of all this I'm certain of one thing, as advisors we will come out of this stronger than ever, we have already shown our resiliency during the pandemic, so we will figure out ways through the effects of the conflict as well.

With these words I'd like to welcome you all to the 2022 IALB/EUFRAS/SEASN international conference. I wish you a fruitful conference and networking amongst colleagues. This has been a long time coming, let's enjoy it to the fullest!

Igor Hrovatic

President of SEASN

Dear organisers, dear participants, dear members of all advisory service networks, participants from different EU and national institutions, dear guests,

I am very honoured to be today with you and to have the opportunity to address you and to get new insights for our work in advisory service. 61st IALB conference shows the importance of the advisory service thru the history and importance of this event.

For us as a SEASN these events are more important. The main topic and massage of this year conference is how to improve knowledge sharing and transfer it into the rural area. Yes, there are different approaches to do this. Networking between advisory services and between their networks is one of them and networks as IALB, EUFRAS, GFRAS and SEASN must have an important role in this. For SEASN this is extremely important because of lot of reasons: small and less competitive agricultural holdings, traditional type of agriculture, less developed advisory services, SEASN members from EU and non-EU countries (mostly they are in pre-accession period), less developed AKIS system etc. Because of those reasons in SEASN expect, that specific of agriculture will be taken into account on different levels. We also want more support for implementing AKIS as a system for knowledge transfer. But I must say on this point that support in this way is coming already. For SEASN is very important that we are the part of i2Connect H 2020 project, and thru this project we saw how weak is AKIS and knowledge transfer in general in SEASN region.

Next innovative approach for knowledge sharing is interactive innovation system which was also developed in i2Connect project. Thru organising the first cross visit in SEASN (in Chamber of Agriculture and Forestry of Slovenia – CAFS), we saw how can be successfully knowledge transfer from EIP project to the practice in rural area, using interactive innovation system. And very important system for sharing knowledge transfer is digitalisation.

Because of the reasons mentioned in the explanation of this year conference, we have to consider and have action plan for the future role of advisory service in rural area. And we can be optimistic.

Last but not least to sum up we are here in Lugo not because of God just can help advisory service in Europe from situation in agriculture and rural area. We are here because we believe that European advisory service has the answers for future issues.

In the name of all SEASN members I wish you a good and successful conference, adopted conclusions which will be heard and used by European and national policy makers too.

Thank you very much,

Florentino Díaz Rodriguez

Congress Organizer

USC

Welcome to the 61st annual IALB conference, which will be celebrated together with the 11th annual EUFRAS conference and the 8th annual SEASN conference, from the 21st to 25th of June, 2022 in Lugo, Galicia.

In this conference, which has been celebrated in different European countries since 1961 and which has finally made it to Spain, numerous people from many countries will meet, whose activities revolve around the rural extension, through its multiple variants: farm advising, research, training, and interactive innovation, activities in which the rural advisor plays a decisive role for the sustainable development and wellbeing in rural areas.

This role is carried out by advisors in the public as well as private realms and from positions of responsibility in the Public Administration, giving help and support, directly to farm and agrifood businesses.

The Congress theme is: ¨The path of knowledge and innovation transfer through extension to sustainable rural development.¨ This theme was chosen deliberately, due to the need to adapt the structure of advisory systems to the goals of farming policy of the EU and to the AKIS and also to the environmental demands which European legislation requires.

Lugo is a leading city in a province that is eminently agricultural and rural in which dairy farms are plentiful, without mentioning other farms and an important forestry area.

At the same time, the city is home to a university campus, linked to the University of Santiago de Compostela where there is a high amount of majors in studies and research related to agricultural and forestry topics, in which future professionals of the rural extension are trained. This causes the city to offer an attractive frame for a demanding topic such as this.

It gives us great pleasure to receive all of the participants, coming from many countries, and we hope that your stay among us, in our university campus and in our city, will be highly satisfying and that you can enjoy the company of fellow colleagues, united by our interest in rural advising and for a better future for the same.

Thank you very much.

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SUMMARY OF PLENARY SESSIONS

PRESENTATION: ELENA-TEODORA MIRON

The role of advisory services in the transformation of the agri-business sector and in the AKIS: Is there something to learn from other sectors?

Lugo, 22 June 2022

Elena-Teodora Miron, e.miron@lk-oe.at

Austrian Chamber of Agriculture

1.- ADVISORS IN AKIS

1.1.- ROLE

- Domain expert
- Communication expert
- Networker
- Innovation broker
- Bridge builder between practice and research
- Change agent and evangelist
- Trusted confidante
- ……

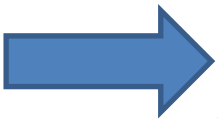
1.2.- REQUIREMENTS

- Continuous update on domain knowledge and evolution
- Methodological expertise in facilitation, building of networks, motivation, innovation
- Project management expertise
- Expert user knowledge of communication and learning technologies
- Policy and systems knowledge to drive transformation
- ……
-

https://www.quirkybyte.com/blog/2018/04/rules-hogwarts-students

2.- THE AKIS

- **Agricultural Knowledge and Innovation Systems (AKIS)** encompass all people and organizations (farmers, foresters, farmers' and foresters' organisations and cooperatives, advisors, researchers, businesses, NGOs…) that generate, share and use knowledge and innovation for agriculture and interrelated fields: rural areas, value chains, environment, climate, biodiversity, society and consumers.



Advisors in AKIS - key actors in the transformation/evolution of the (open) system

2.1.- CONSULTING/ADVISORY

- Core business – delivery of knowledge/advise
- Both research and practice based
- Changing customer contexts due to expansion/transformation of industries we were active in
- Increase of interdisciplinarity
- Stable business model but pressure on pricing
- Transformation of competitors landscape (separation of knowledge layers)
- Increasing competition for domain experts/high-potentials especially people with interdisciplinary competences

2.2.- CUSTOMERS

- Banking, insurance …**high compliance** + Public administration… **high degree of formalization**
- Mechanical engineering (construction machines)…**high investment costs, long product lifetime,** low customer volatility, high confidence of customers

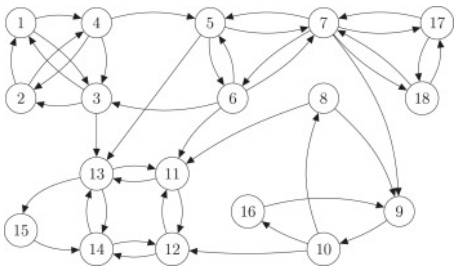
3.- APPROACH

3.1.- OBSERVING PHENOMENA

3.1.1.- Move towards a systemic view- 2008

OECD Meeting, Seoul Declaration on the "Future of the Internet Economy"

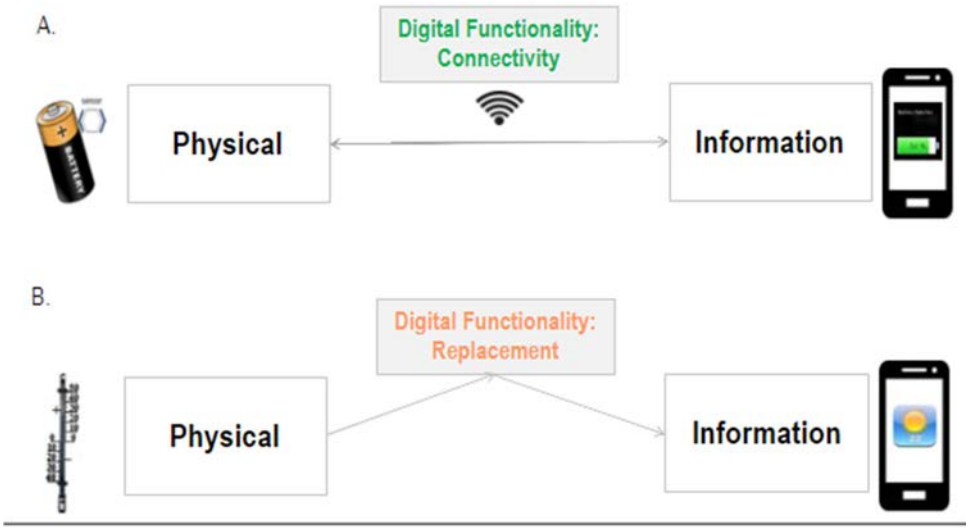
Connectivity = networks (physical or virtual), which are composed of a set of interconnected nodes



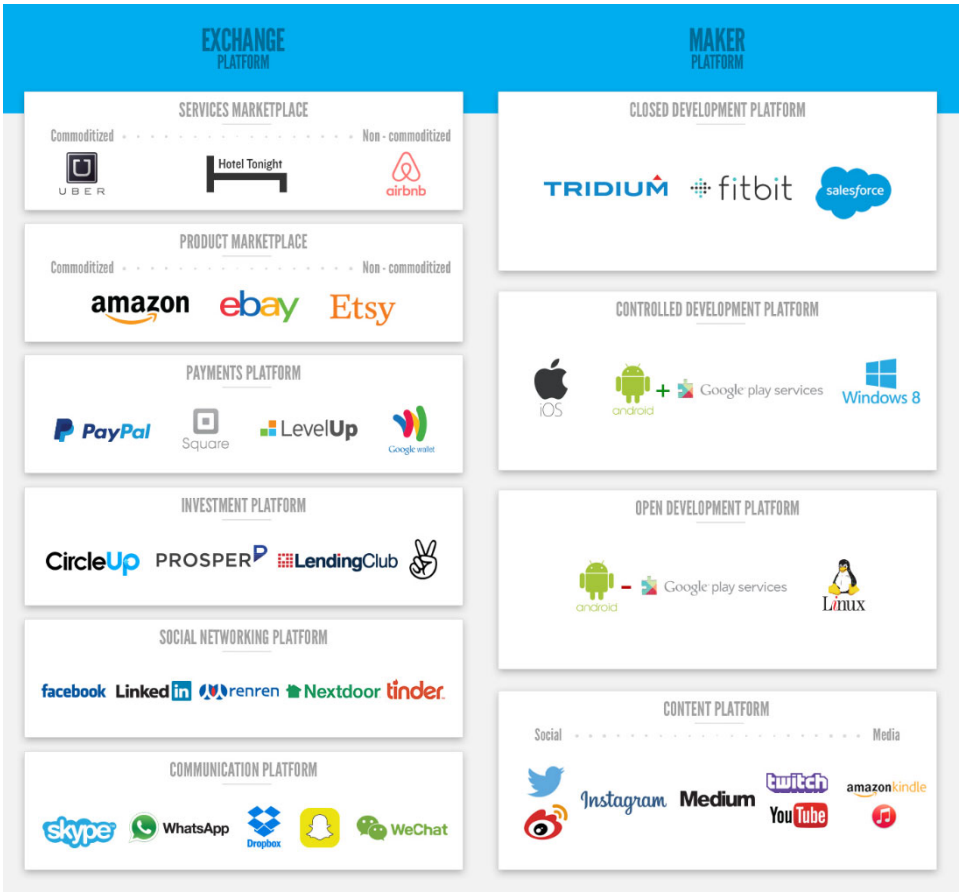
Platforms= environments where people can interact more effectively with each other at scale; provide a governance structure and a set of standards and protocols designed to enhance the potential for interactions and impact among participants at scale [1].

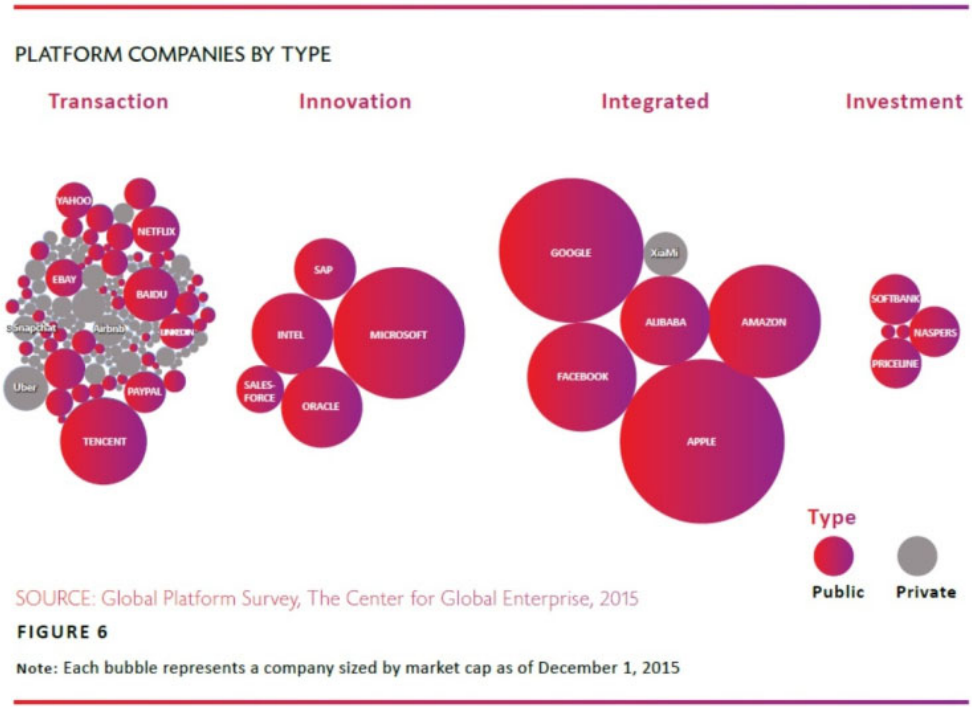
ç[1] World Economic Forum, „Systems Leadership and Platforms: How to mobilize people to transform systems and build the platforms to scale these efforts", White Paper, Nov. 2018

3.1.2.- Observation: Connectivity – Two principles



3.1.3.- Observation: The platform world

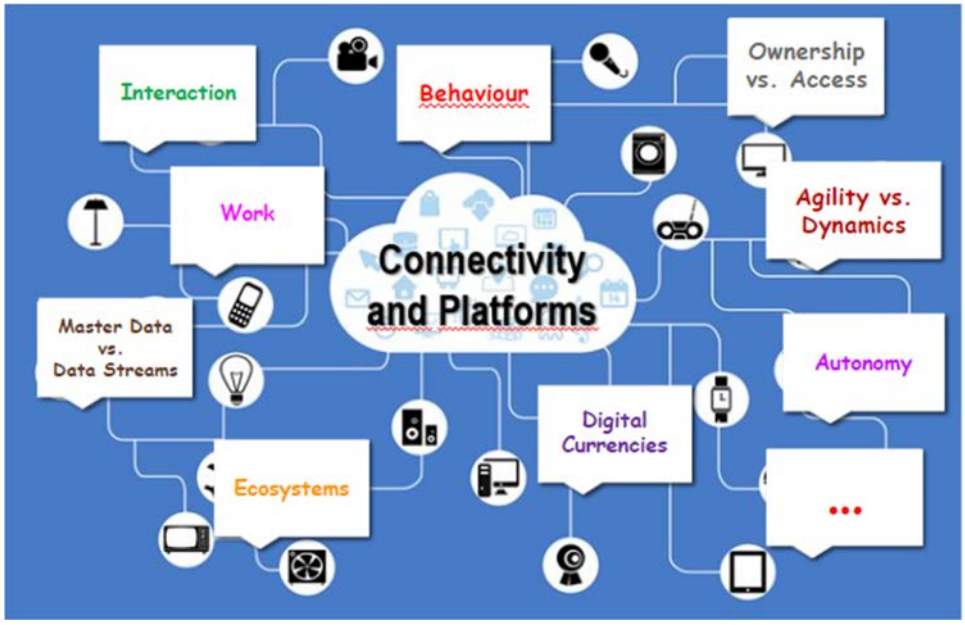




SOURCE: Global Platform Survey, The Center for Global Enterprise, 2015

FIGURE 6

Note: Each bubble represents a company sized by market cap as of December 1, 2015

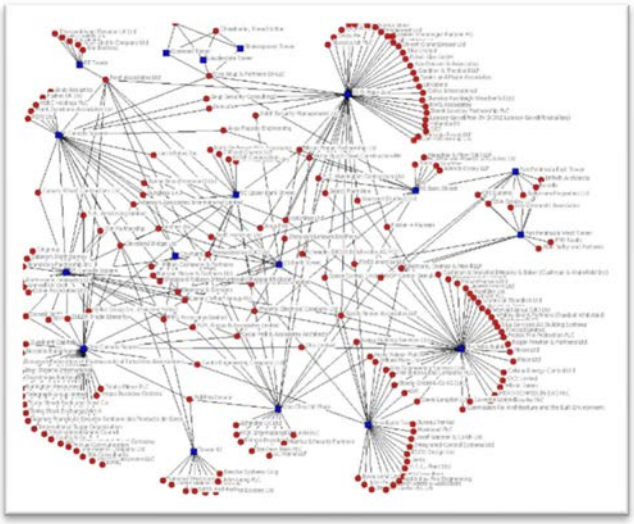


3.2.- UNDERSTANDING NEW CHALLENGES

3.2.1.- For customers:

- Complexity
- Interdisciplinarity
- Blurred organisational boundaries for scale
- Co-opetition
- Quality and quantity of interactions
- Servitization
- New forms of revenue generation

https://tacity.co.uk/category/social-network-analysis/

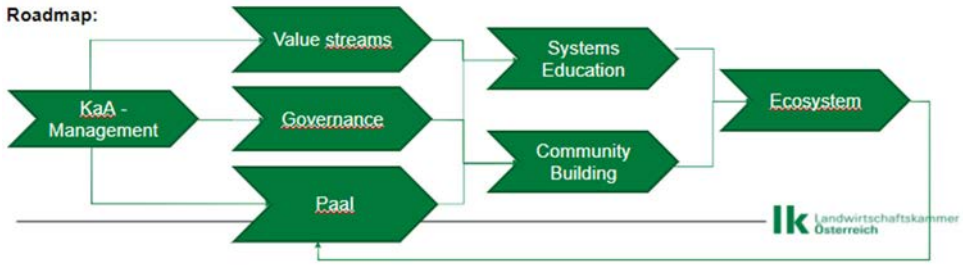


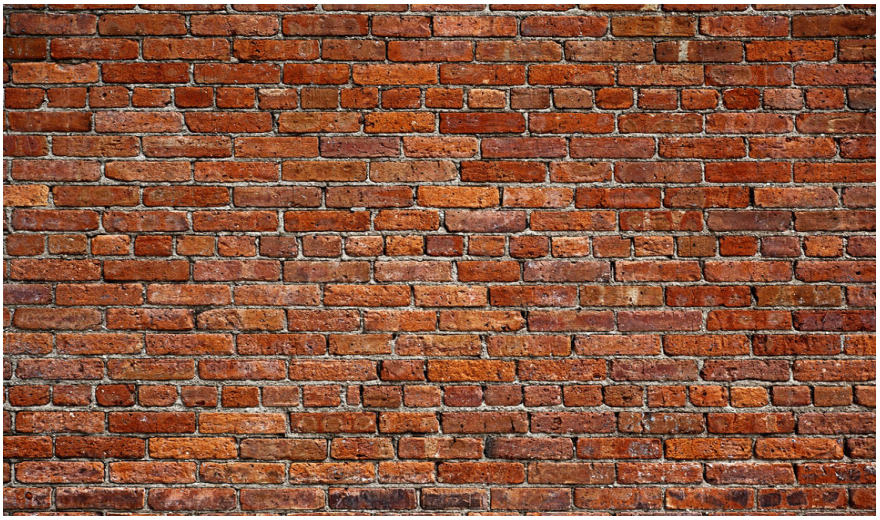
3.3.- DERIVING ELEMENTS FOR FUTURE APPROACHES AND ACTION PATHWAYS

What is the role of advisory in a platform economy
(by 2030 and beyond)? What is the roadmap to arrive there?

Strategic Objectives:

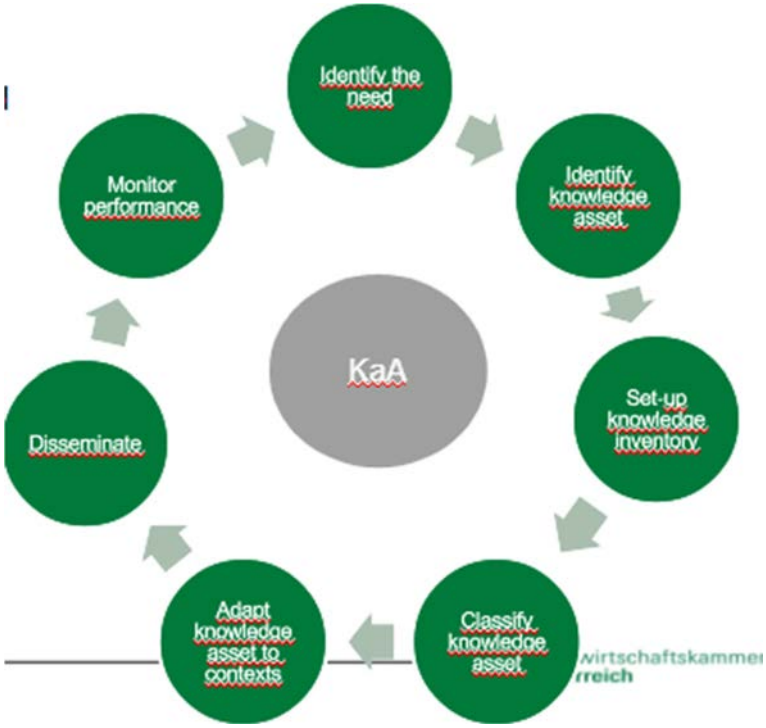
- Become a key node in the knowledge network (became system leadership)
- identify key challenges of the domain and address them through the network
- provide a knowledge aggregation and interaction infrastructure for the community (think global/act local)





3.3.1.- "Knowledge as an Asset" Management

- New form of knowledge „packaging“, delivery and valorisation
- Knowledge management needed to enable transformation from service providers to network orchestrators
- Knowledge assets
- To foster peer exchange
- Long-tail business model for revenue generation
- Inspired by financial industry concepts/practices and knowledge management concepts



3.3.2.- Develop Value Streams

- ...mostly not about money
- ....framing a big enough long-term problem that was a compelling opportunity and enough open space for meaningful contribution (hint: go for core emotions)
- …be transparent & clear about the process (hint: speak about good and bad)
- …target key system leverage points
- …clearly understand and address the motivations of participants (hint: send in B-Team)
- …encourage localized value creation/facilitate decentralized value creation
- …create facilities for global value dissemination (hint: celebrate wins early and visibly)

3.3.3.- Governance

- Define clear values that frame acceptable action
- Define transparent and fair processes for sactions and enforce them
- Set-up mechanisms for decentralized governance and leadership
- Implement mechanisms of social control, motivational control and informative control
- Implement feedback loops
- Move early to diminish fear contagion

3.3.4.- Platform Infrastructure Design

- Define one core interaction, which the platform supports and provide excellent user experience in the interaction
- Create a cheap/affordable plafform infrastructure that can be deployed in (local) communities
- Integrate flows across different communities to create one view of the ecosystem
- Change the mindset
    - move from consumption to participation and outcome

3.3.5.- Systems Education

Young advisors

Not enough education on systemic topics, no international community for experience exchange, some professors providing very narrow views of the domain

Creation of a Professional Training Program

- Since 2014 more than 600 participants from 45 countries
- Focus on presentation of topics relevant in ecosystem management and development, broad domain approaches
- Strong focus on interdisciplinary group work with hands-on experience
- Time reserved for networking with senior researchers and professionals
- Established a thriving cooperation network
- Researchers on tenure tracks in the discipline have passed to 80% through the programme by 2021

3.3.6.- Community Building

- Extensive research in understanding which participants are necessary to be involved in the system for value delivery
- Learning of instruments on how to involve participants in an ecosystem (hint: mixed knowledge from HR and marketing)
- Focus interactions on participants success and outcomes
- Make benefit of community contribution transparent
- Interdisciplinary involvement - lessons learned: multiply initial estimated time by 4 or 5
- Involve the enthusiasts/don‘t waste time on the cynics
- Leverage resource input from the ecosystem for network development

3.4.- MODERNAKIS PROJECT

3.4.1.- ModernAKIS Consortium

Consortium:

- 36 Partneres
- 2 Affilliate Entities
- 27 Member states

Types of Organizations:

a. 9 CAP Managing Authorities/Ministries
b. 2 CAP networks
c. 8 private and public advisory services

d. 4 farmer representative organisations
e. 11 educational and research institutions
f. 4 companies (SMEs) from the agro-food sector

3.4.2.- Overall Objective

Improve AKIS actors' capacities to leverage individual, organizational and systemic resources needed for the transformation towards more coherent, effective and efficient AKIS systems and the transition to a more sustainable management and use of natural resources in farming and forestry.

3.4.3.- Specific Objectives

The importance of the knowledge and innovation value chain for the improvement of the rural environment.

Lugo, 22 June 2022

Isabel Bombal Díaz, dgrifa@mapa.es

Director General of Rural Development, Innovation and Agri-food Training
Ministry of Agriculture, Fishing, and Food

TABLE OF CONTENTS

The importance of the value chain of knowledge and innovation for the improvement of the rural environment.

Lugo, 22 June 2022

Isabel Bombal Díaz, dgrifa@mapa.es

Director General of Rural Development, Innovation and Agri-food Training
Ministry of Agriculture, Fishing, and Food

1.- EXTREMELY COMPLICATED MANAGEMENT

About transorganizational knowledge management:

The most complex scenario for knowledge management may be found in the context of supply chain as it involves multiple companies without an ownership relationship or hierarchy between them, being called by some authors as transorganizational or interorganizational knowledge. That complexity is additionally increased by industry 4.0 (or 4th industrial revolution) and digital transformation, as new challenges emerge from both the volume and speed of information flows and knowledge generation.

Knowledge management , Wikipedia

Jeanfranc Sartori, 2021

→ The intersection of knowledge management and innovation in a system as rich and complex as the agri-food chain in Spain, in the middle of the information society, gives an idea of the challenge we have to face... all the actors of the Agricultural Knowledge and Innovation System in Spain.

1.1.- 2019-2020: STUDIES, DIAGNOSTICS, ANALYSES

1.2.- AEI-AGRI INNOVATION: GRANT MANAGEMENT AT THE SUPRA-AUTONOMOUS LEVEL IN THE PNDR 2014-2020

Submeasure 16.1 Aid to create GOs above the Autonomous Communities

2016 Call: 60 GOs- 2.70M€

2018 Call: 117 GOs- 5.7M€

Submeasure 16.2 Aid to execute projects of general interest by GOs above the Autonomous Communities

2018 Call: 22 projects- 11.14M€

2019 Call: 46 projects- 23.08M€

2020 Call: 33 projects- 16.04M€

2022 Call: 12.15M€ (with Next Generation funding. pending resolution)

2.- FOCUS GROUP ON AKIS ADVISING

Their objective was to analyze and identify actors that can develop advising tasks within the AKIS, in order to achieve an efficient institutional backing to strengthen the transfer of knowledge and innovation in the agri-food sector.

Composition:

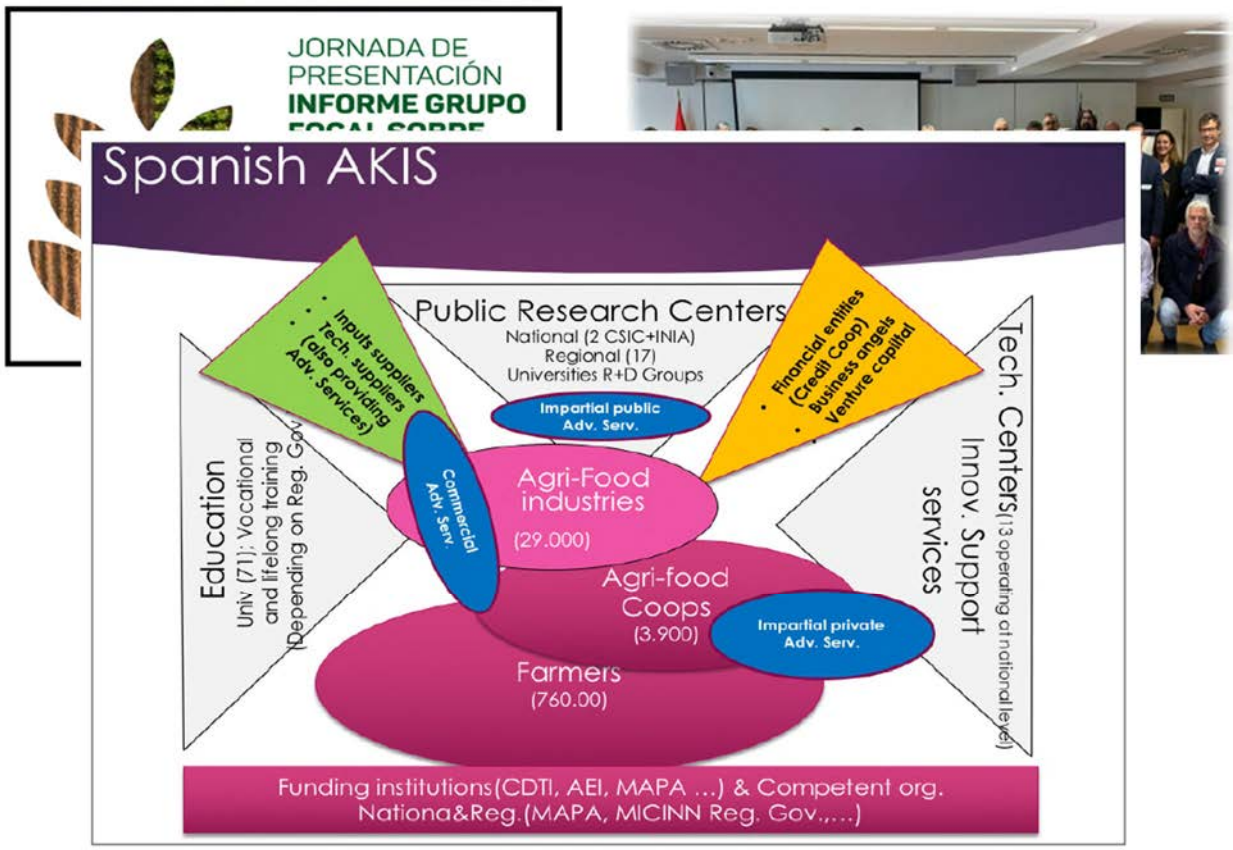
- 33 members (13 Autonomous Communities)
- Cooperatives, researchers, universities, Autonomous Communities, input industries, technology industries, advising services (public and private), NGOs, and foundations

Challenges the focus group discussed:

1. Improvement of governance and coordination of agricultural knowledge and innovation systems in the Spanish context and their interconnection with the European Union.
2. Interaction, knowledge flows and role of advisors in strengthening AKIS (vision of farmers, advisors, researchers, companies and administration).
3. New formulas for agricultural advice within the Spanish diversity; agricultural advice and its role as a facilitator of innovation support services in innovation processes to strengthen its contribution to the improvement of interactive innovation processes in the agri-food sector.
4. Impartial vs. commercial advice: How to ensure the impartiality of the system by allowing the participation of all actors?
5. Contribution of AKIS, and in particular of agricultural advice, to the achievement of CAP objectives (environment and climate change; youth and women; digitalization and innovation).

The final report of the Focus Group of AKIS Advising is available here:

20211022informefinal_digital_tcm30-562479.pdf (mapa.gob.es)



Fuente: Montero Aparicio, A. 2020

2.1.- FOCUS GROUP'S CONCLUSIONS ON ADVISING IN AKIS

Geographical diversity = AKIS diversity

- AKIS variables between regions and by sector
- Dispersion + Fragmentation ≠ Weakness

Plurality of advisors = plurality of needs and demands

Governance and coordination: Need for reinforcement

- ¨Agricultural extension¨ services
- Public organisms
- Farmer organizations
- Independent advisors
- NGOs
- Agricultural input businesses
- Agricultural technology businesses

Unbiased and Quality. Strengthen Advisor Training.

2.2.- FOCAL GROUP'S RECOMMENDATIONS

A strategic focus and system of governance reinforced with mechanisms of coordination at multiple levels

- → Coordinated action
- → Synergies between actions and competences
- → Simple and adapted to the real world and level of development of AKIS in Spain
- → Operative
- → Respect the competences of each field and reinforce the whole through enhanced cooperation

Strengthening AKIS

- → Reinforcement of consolidated tools
- → Development of new tools

3.- CAP STRATEGIC PLAN (PEPAC) 2023-2027

Regulation 2021/2115 CAP Strategic Plan

Cross Objective: Art 6: Modernize the sector through the promotion and sharing of *knowledge*, *innovation* and *digitalization* in agricultural and rural areas and promote their adoption.

General Objectives: Promote an intelligent, diversified, and resistent agricultural sector, which guarantees food security; intensify environmental care and climate action; strengthen the socioeconomic fiber of rural communities

Specific Objectives:

- → Guarantee fair income
- → Increase competitiveness
- → Recalibrate the power in the food chain
- → Action against climate change
- → Environmental protection
- → Biodiversity and landscape conservation
- → Support the generational replacement
- → Lively rural areas
- → Protect food quality and health

3.1.- CAP STRATEGIC PLAN IN SPAIN (PEPAC): INTERVENTION LOGIC OF THE CROSS-CUTTING OBJECTIVES

Lack of connection among actors

Low level of training in the agrifood sector

Resources to drive innovation and knowledge transfer

Multiactor focus with learning among regions

NEEDS

Enhance agrarian training and knowledge exchange

Boost advising

Reinforce an innovative ecosystem

Boost digitalization

Reinforce and adapt the AKIS governing structures

PEPAC Interventions

Non-productive investments on basic services in rural areas focused on digitalization: 2 Autonomous Communities

AEI-Agri Innovation Cooperation: 14 Autonomous Comms. + Ministry of Agriculture, Fishing, and Food (MAPA) ≈93,3M€ +75M€ ≈168,3M€GPT(with top-up)

Non-AEI-Agri Innovation Cooperation: 6 Autonomous Comms.≈ 11,7M€GPT

Agrarian Training: 15 Autonomous Comms. +MAPA =63,3M€ + 18M€= 81,3M€GPT(with top-up)

Advising: 14 Autonomous Comms. =100,6M€+4,7M€=105,3 M€GPT (with top-up)

3.2.- FUTURE SUPRA-AUTONOMOUS INTERVENTIONS OF THE CAP STRATEGIC PLAN

3.2.1.- Training: 18 M€

A. Events in the form of technical conferences, technical seminars or field conferences, among others, in which the most current technological and management knowledge is openly disseminated with respect to the subject matter concerned and with a view to improving the competitiveness or environmental sustainability of related agricultural or livestock farms or the agri-food industry.

B. Demonstration activities that show the feasibility or operation under real conditions of those practices or innovations.

C. Training courses for the acquisition of digitalization skills: for professionals in the agri-food sector and advisors.

- Themed programs related to digitalization (including A+B+C).
- Themed programs not directly about digitalization (including A+B).

3.2.2.- Digital Advising: 4,7 M€

→ Aid to contribute to obtaining digital advising services: grants will be awarded to advising entities for providing digital advising services

→ Aid to create digital advising services: grants will be awarded to establish digital advising

A MORE OPEN, MULTI-REGIONAL FOCUS WHICH WILL COVER POSSIBLE GAPS IN AUTONOMOUS COMMUNITY INTERVENTIONS

3.2.3.- AEI-AGRI COOPERATION-INNOVATION: 75 M€

2023-2027	1 intervention to give aid to carry out innovative projects by the AEI-Agri GOs (with financiable project prep expenses) GO complementary profiles/ agrifood/forestry mandatory Supra-autonomic range→(<2) covers the gap between interventions in 14 Autonomous Communities. Programmed 75M€→ + 60% budget allocation compared to 2014-2020 period 100% possibility of grants Possibilityy to advance up to 50% of aid Max aid limit: 600.000€
2014-2020	2 submeasures: 16.1 to provide aid for GO creation and 16.2 for innovative project implementation GO complementary profiles/agri-food/forestry sector mandatory Supra-autonomic range→ covers the gap between interventions in 15 Autonomous Communities. Initially programmed at 47 M€2014-2020 100% possibility of grants (except investments) Advances only for investments Max aid limit: 100,000€ to create GO, 600,000€ for project execution

3.3.- AKIS GOVERNANCE IN THE CAP STRATEGIC PLAN: A MULTILEVL GOVERNANCE STRUCTURE

Scale: European

National

Regional

Planning ⟶ Strategic Tactical Operational

AKIS COORDINATION BODY:

- → Integration and coordination of public policies at national/Autonomous Comm. Level
- → Improvement of knowledge flows among different actors in the AKIS system
- → Framing of bodies that already exist in AGE and Autonomous Comms.

3 Working Groups:

-Advising

-R&D+i

Training

4.- POLICY COHERENCE, MULTIPLICITY OF STRATEGIC FRAMEWORKS FOR KNOWLEDGE ENHANCEMENT AND INNOVATION

Initiatives outside the CAP to strengthen the knowledge and innovation systems in agriculture.

1.051M€ from the Mechanism for Recovery and Resilience

- → 956M€ Agriculture and Food
- → 95M€ Fishing and Aquaculture

Plans of Action:

Investment #1: Improve efficiency and sustainability in irrigation

Investment #2, 3, 4: Drive sustainability and competitiveness in Agriculture and Farming

Investment #5: Digitalization Strategy for Agrifood and Forestry Sectors and the Rural Environment

Investment #6-11: Drive sustainability, research, innovation, and digitalization in the Fishing Sector

4.1.- RECOVERY PLAN: AGRIFOOD DIGITAL TRANSITION

Initiatives outside the CAP to strengthen the knowledge and innovation systems in agriculture.

Strategy for the Digitalization of the Agrifood and Forestry Sectors and Rural Environment

ACTIONS:	**Millions € from EU funds**
1. Agrifood sector entrepreneurship support	30
2. Digital Innovation Hub	4
3. Digitalization observatory	1
4. AKIS Advisors platform	3
TOTAL	**38**

-**ENISA MAPA Agroimpulse Credits:** technologically-based support to entrepreneurship in agrifood small businesses

- → Beneficiaries: SMEs related to all parts of the value chain and present innovative/digital business projects
- → Execution: Agreements (first, annually for 10€M) with ENISA (National Business of Innovation)
- → Amount: 30€M European, 3€M AGE MAPA
- → Agro SME Line of Financing: Participative loans- 9 years duration, 7 years maximum grace period, free of guarantees and collateral. Loan amount: 25.000€-1.500.000€.

-**Digital Innovation Hub**: for agrifood businesses in San Fernando de Henares, Madrid

Facilitating environment that generates an ecosystem conducive to promoting the use of new technologies in companies in the agri-food sector, based on interoperableFiwareFiware technology:

common architecture promoted by the EU. It uses standardized protocols to develop intelligent and interoperable solutions in the Internet of Things (IoT) sector.

Renewed physical spaces + information technology platform + cultivated fields

-**Digitalization Observatory:** Ongoing monitoring and analysis of the degree of implementation and adoption of new technologies in the agri-food sector at the sectoral and territorial level.

Agreement with Cajamar Foundation

Modelo para gestionar el conocimiento mediante el observatorio científico. **Fuente:** (Medina Nogueira, 2016).

-**AKIS Advisors platform:** A platform that functions as a tool to promote the transfer of knowledge and information among the actors of the AKIS, allowing to take advantage of the knowledge generated and make synergies profitable throughout the national territory, with special emphasis on the role of advisors, who will evolve towards a role of innovation agents, in line with the mandate of the new CAP.

- → Dissemination of own contents on national repository
- → Public list of advisory entities of the Autonomous Communities.
- → Voluntary registry for agrarian advisors of autonomic scope.
- → Public repository of information on agricultural research, innovation and development
- → AKIS Meeting point

4.2.- STRUCTURE OF THE AKIS ADVISORS PLATFORM

Home Page: News, calendar, access to personal profile, sign up

About the Platform

Actions to Exchange Knowledge: Events and seminars, demonstations, aid to promote knowledge exchange

Training: Database of training for advisors, Database for farmer training, Access to MAPA (Ministry of Agriculture, Fishing, and Food) training

Advising: search for advising, aid for advising

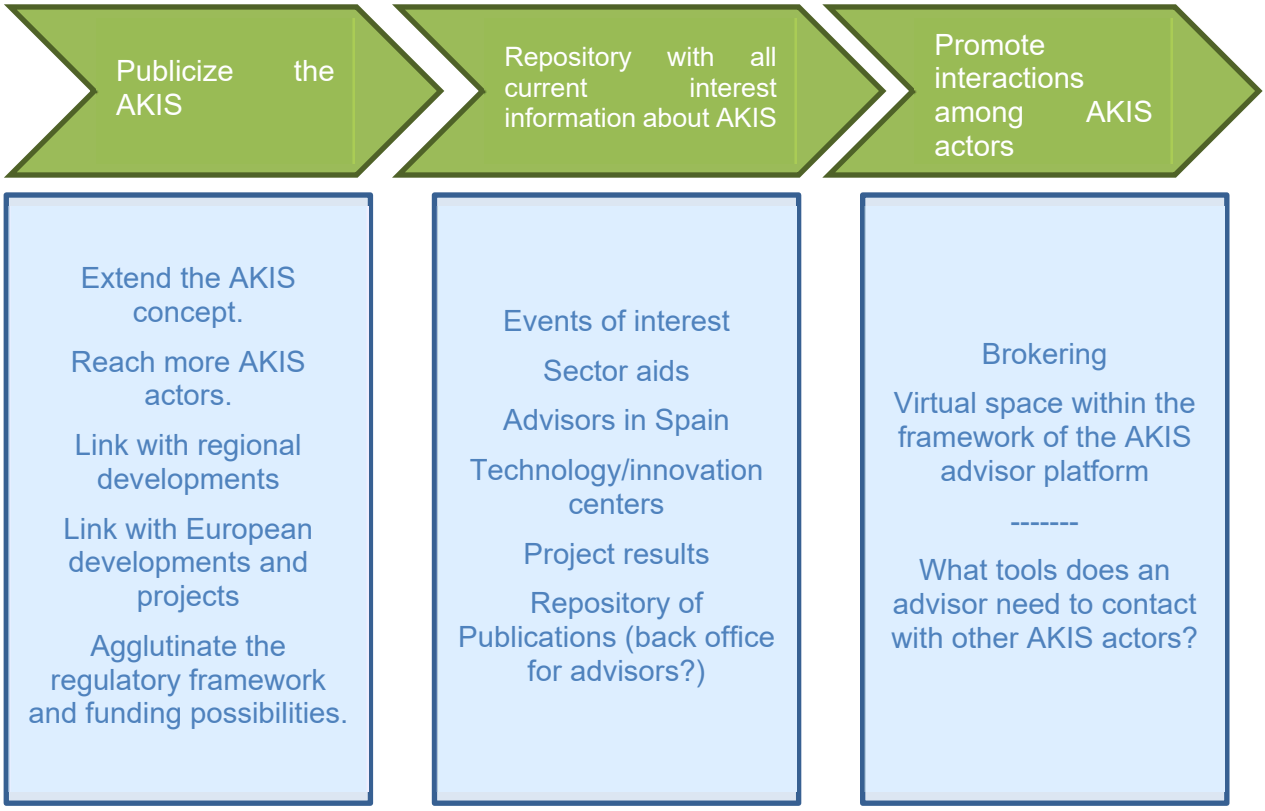
Research: Research database, highlighted results

Innovation: Database of projects and innovation networks, highlighted results, brokering, aid for innovation support

Dissemination: videos, podcast, photo gallery

Customer Service

4.3.- DEVELOPMENT STAGES OF THE AKIS ADVISORS PLATFORM



4.4.- POLICY COHERENCE, MULTIPLICITY OF STRATEGIC FRAMEWORKS FOR KNOWLEDGE ENHANCEMENT AND INNOVATION

Agrifood PERTE (Strategic Project for Economic Recovery and Transformation) R&D+i

Complimentary R&D&i Plans within the Autonomous Communities:

-AGROALNEXT Agrifood

- → Autonomous Communities of Navarra, La Rioja, Aragon, Valencia, Murcia, Extremadura, and Asturias, Budget: 46M€
- → Goals:

1: Sustainable primary production. Ecological transition.

2: Guarantee a healthy, safe, sustainable, and accessible food supply

3: Digital transition of the agrifood sector

4: Circular economy

5: Innovation and transfer for transformation

6: Reinforcement of infrastructures and resources to improve the competitiveness of R&D+i entities and boost transfer to the market

7: Coordination, dissemination, and training

Innovation/CDTI (Center for Technological Development and Innovation)

- → Missions for science and innovation: impulse agriculture to the 21st century
- → Budget: 21.9M€
- → Grants to Cervera Technological Centers of Excellence for actions in priority technologies: area to achieve a safe and healthy food.
- → Budget: 8.5M€

Infrastructures

- → Plant Germplasm Platform: 4.5M€ Budget
- → Modernization of animal health and plant laboratories. MAPA. 18M€ Budget

4.5.- WITH FUNDING FROM MAPA (MINISTRY OF AGRICULTURE, FISHING, AND FOOD)

Training. A3 Action. Creation of a Digital Competencies Center.

Objective: address the digital divide by training professionals from agri-food service companies, agricultural business associations, farmers and ranchers, cooperatives, public administration, rural development groups, technology centers and agricultural organizations, with special attention to young people and women in rural areas.

The first training program of 8 courses was already developed in 2021, through an inter-administrative agreement between the MAPA (DGDRIFA) and the Universities of Cordoba and the Polytechnic of Madrid. The project will be continued from 2022 onwards.

Budget: 1M€

Cultiva Program

-Training Stays for Young Farmers in Model Farms Program

Objective: to offer young farmers and stockbreeders practical training in host model farms through training stays, where they have the opportunity to acquire and consolidate in situ knowledge on technical and management aspects that they can apply in the development of their own agricultural activity.

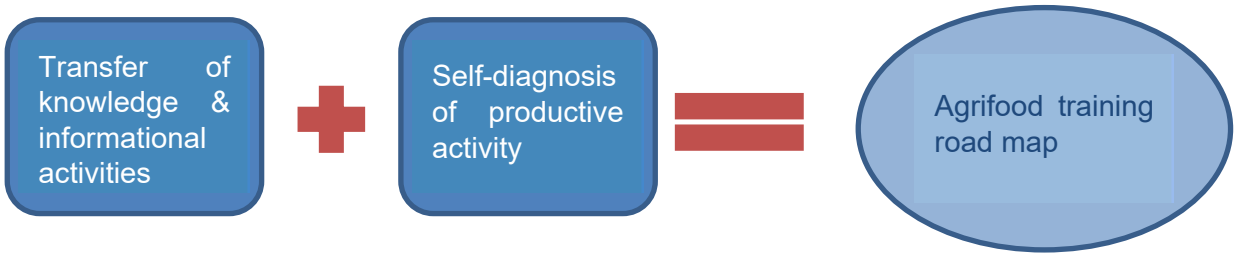
Training stays, developed in national territory and for periods of between 5 and 14 days, offer young people 7 hours of daily training on different topics

https://www.mapa.gob.es/gl/desarrollo-rural/temas/jovenes-rurales/visitas-formativas/default.aspx

PROGRAMA CULTIVA
Programa de Estancias Formativas de Jóvenes Agricultores en Explotaciones Modelo

Elaboration of an Agri-Food Training Roadmap:

Objective: To define MAPA's Mission and Vision in relation to agri-food training, as it constitutes a strategic pillar for the modernization and competitiveness of the agricultural sector, the fight against rural depopulation, and land use planning.



AREAS OF ACTION:

1. Guidance/advising: training itineraries, accreditation of competencies.

2. Coordination/collaboration with other authorities and agents: to achieve an effective coordination between the competent authorities in training.

3. Participation in European programs and community initiatives related to Training and Capacity Building.

4. Innovation: to publicize innovation and knowledge transfer projects and initiatives.

5. Digitalization: to promote new learning environments, tools and pedagogies, in particular linked to digitalization.

6. Lines of support: multi-regional training programs, young farmers, rural women, digitization, Plan Cultiva.

7. Disseminate and promote actions to raise awareness and increase the attractiveness of VET: campaigns to promote new rural professions and agricultural and agro-industrial family VET, encourage the accreditation of skills, make training policies more visible, etc.

8. Monitoring and evaluation: define indicators and objectives that allow both quantitative and qualitative monitoring of the performance of the objectives.

5.- CONCLUSIONS

- → Increasing relation between CAP and the EU's Innovation Policies
  - o Promote the AKIS
  - o Promote the transfer of knowledge and information
- → A lot of diversity in AKIS in Spain
- → Lack of recognition of the role of researcher in the scientific degree (amendment of the Science Law, in parliamentary procedure, will include the recognition of transfer activities in the research degree).
- → Evolution in the last decade of a linear system with a multi-stakeholder approach: Role of AEI-Agri Operational Groups.
- → Great diversity of advisory systems: Evolution towards more specialized advisory services.
- → Increasing demand for space for materials to cover by advising services provided by producers
- → Current evolution of the role of advising towards the figure of Innovation Agent
- → Creation in recent years of ecosystems of open innovation: new mechanisms to transfer knowledge, streghtening of entrepreneurship, strengthening of AKIS relationships, new funding mechanisms
- → Need for all implied actors to participate
- → Need for an AKIS governing structure for national coordination

The current state of Galicia's agri-food sector. Instruments and measures to guarantee that knowledge, training, and advising reach the rural environment

Lugo, 22 June 2022

José Luis Cabarcos Corral, agacal@xunta.gal

General Director of AGACAL. Xunta de Galicia

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The current state of Galicia's agri-food sector. Instruments and measures to guarantee that knowledge, training, and advising reach the rural environment

Lugo, 22 June 2022

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General Director of AGACAL. Xunta de Galicia

1.- ADVISORS IN AKIS

The agricultural and food indistury is the biggest producing and manufacturing sector in Europe, with an estimated over 10 million farms with some 22,000 agri-food cooperatives in the EU, which create 20 million jobs, especially in rural areas. There are an estimated over 294,000 businesses dedicated to food processing.

In 2021,t he European population (EU 27) included more than 447 million people (Eurostat) and the rural world is the supplier of the foods which that population needs.

In Galicia, 40% of raw cow's milk, making it one of the top 10 regions in dairy production in Europe, having 41.9% of the heads of production of cow's milk. In Galicia 15.5% of Spain's cattle with 2.5 million heads in 2021 or 1.7% of slaughtered pigs in Spain. Although the production of corn remains stable with about 108,000 tons/year since 2019, fodder decreased to 1.97 million tons, representing practically half of the production of Spain (Source: MAPA. Report about Indicators per Autonomous Community-Galicia 2021).

With 2.957 million hectares, it represents 5.8% of the national territory and represents 9% of the Spanish forest area (1.8 million ha) and 456,000 hectares of meadows and pastures plus 369,000 hectares of cultivated land (MAPA. Annual Statistics 2020).

Agriculture, farming, forestry and fishing represent in Galicia 5.7% of its GDPB, compared to the 3.1% that this sector represents for Spain as a whole.

With 76,000 farms in 2016, Galicia has 8% of the farms in Spain and dedicates 226,000 hectares to fodder crops, representing 23.3% of the Spanish area dedicated to this production, being the production area of fodder millet 75.3% of all of Spain. It also stands out the production of potato with 11,700 hectares that represent 25.5 % of the national surface dedicated to this crop.

In the agri-food industry, with 1283M € of revenue for dairy products, 1350M € for the meat industry, 1080M € for animal feed products or 558M € for beer and malt, Galicia represents 13.2%, 4.7%, 7% and 14.5% of revenue respectively for dairy products, the meat industry, animal feed products or beer and malt compared to the rest of Spain.

It is estimated that in Galicia around 512,308 hectares of agricultural land are susceptible to being used for crops or forestry uses and with the new Law of Agricultural Land Recovery of Galicia, a great commitment was made for the recovery of abandoned territories by introducing newly created figures such as model villages or agroforestry estates. One of the great handicaps is the smallholding and the fragmentation of the property, but since the law was launched (BOE 152 26 June 2021, one year after its publication), more than 5,500 owners showed interest in adding more than 25,000 plots to some of the land mobilization tools included in the regulation, mobilizing already more than 4,600 hectares of land.

2.- ECONOMICAL INSTRUMENTS AND RDP MEASURES (2014-2020)

2.1.- CURRENT RDP (2014-2020)

The measures and submeasures currently active which are directly related to the guarantee that knowledge, traininig, and advising reach the rural environment can be summarized as following:

MEASURE 01: Actions for the transfer of knowledge and information (article 14)

Submeasure1.1. Professional training and adquisition of competences

Submeasure 1.2. Demonstration and information activities

Submedida 1.3. Brief exchanges and visits

MEASURE 02 Advisory services, management, and substitution addressed to agricultural operations (art. 15)

Submeasure 2.1. Use of advisory services

- Public advisory services

- Private advisory services

Submeasure 2.3. Advisor Training

MEASURE 16: Cooperation (art. 35)

Submeasure 16.11 EIP Task forces for agricultural productivity and sustainability

Submeasure 16.12 Aid for EIP task force projects

Submeasure 16.20 Aid for pilot projects and development of new products, practices, processes, and technologies.

3.- STRATEGIC PLAN - CAP

There is a clear paralelism between the interventions that are designed for the new CAP Strategic Plan 2023-2029 and those in the current RDP 2014-2020:

- **Intervention 7201. Training**

In the new CAP Strategic Plans, this intervention is equivalent to or includes the submeasures from the current RDP 2014-2020

1.1. Professional training and adquisition of competences

1.2. Demonstration and information activities

1.3. Brief exchanges and visits

2.3. Advisor Training

- **Intervention 7202. Advising.**

It is equivalent to submeasure 2.10 in the current RDP 2014-2020 about the use of advisory services. It includes advisory services which are:

-Public

-Private

- **Intervention 7161**. Cooperation of Tasks Forces of the European Association for Innovation in Agricultural Productivity and Sustainability (AEI-Agri). Article 77 of Cooperation. Projects of Operational Groups.

Equivalent in the current RDP to submeasures 16.11 and 16.12 of aids for the creation of EIP Task Forces for agricultural productivity and sustainability and for the projects of these groups, respectively.

- **Intervention 7162**. Cooperation groups for innovation not related with AEI AGRI. Article 77 of Cooperation. Pilot Projects.

It is equivalent to submeasure 16.2 of aids for pilot projects and development of new projects, practices, processes, and technologies.

- **Intervention 7131.** Cooperation to promote participation in quality systems of agricultural and food products. (Estimated 8,500 beneficiaries). Participation DO/IGP

- **Intervention 7132.** Cooperation to promote agricultural and food products in quality systems. 5.500.000 € annual GPT. Promotion DO/IGP

- **Intervention 6505. Genetic Resources Conservation**

It is equivalent to the current RDP 2014-2020 submeasures 10.23 genetic resource conservation in agriculture (managed by AGACAL) and 15.21 Genetic Forest Resource Conservation (managed by AGACAL)

4.- CURRENT RDP 2014-2020

The instruments and measures that ensure that knowledge, training and advice reach the rural environment are decisively supported by the EAFRD measures implemented in Galicia through the RDP (Regional Development Program) of Galicia 2014-2020, under Regulation (EU) 1305/2013 of the European Parliament and of the Council of 17 December 2013 on support for rural development through the European Agricultural Fund for Rural Development (EAFRD).

Specifically, the measures and submeasures that the RDP of Galicia support for these purposes are:

MEASURE 01: Actions to transfer knowledge and information (art. 14)

The Galician agri-food and forestry sector needs to incorporate innovative practices and the development of R&D initiatives, as a basic element of competitiveness, as well as to consolidate a permanent system of knowledge and innovation transfer to farmers, foresters, land managers and agents of the agri-food and forestry industry, which takes into account the permanent updating of trainers and attends to the different areas of interest: business management, new technologies, participation in the value chain, environmental protection, biodiversity, Natura 2000 Network, ecological agriculture, climate change, nature conservation, etc.

In particular, this measure is deeply involved in the promotion of professional training systems in agriculture and forestry, face-to-face, blended learning and internet-based, complementary to the graduate education systems and with a special focus on new farmers and foresters.

It covers both the activities of continuous professional training and acquisition of competences, as well as the activities of demonstration and information.

The measure is essentially linked to priority one of rural development and, in particular, to the following focal areas

- 1A (encourage innovation, cooperation, and development of the knowledge base in rural areas)
- 1C (encourage permanent learning and professional training in the agricultural and forestry sectors).

However, given its horizontal nature, it contributes transversally to the achievement of the objectives of practically all the priorities, and in particular, of the focal areas

- 2A (improve economic results of all operations and facilitate the restructuring and modernization of them, specifically with the objective of increasing their participation and orientation towards the market, as well as agricultural diversification),
- 2B (facilitate the entry into the agricultural sector adequately-trained farmers, and specifically generational substitution),
- 3A (improve competitiveness of primary producers, better integrating them into the agri-food chain through quality schemes, adding value to agricultural products, promotion in local markets and short distribution circuits, producer groups and organizations and interprofessional organizations),
- 4A (restore, preserve and enhance biodiversity (including in Natura 2000 areas and areas with natural or other specific limitations), agricultural systems of high natural value, as well as the state of European landscapes),
- 4C (prevent soil erosion and improve its management),
- 5B (reach a more efficient use of energy in agriculture and in food transformation)
- 5C (facilitate the supply and use of renewable energy resources, subproducts, waste and other non-food raw materials in order to drive the bioeconomy's development),
- 5D (reduce greenhouse gas emissions and amoniac emissions from agriculture)
- 5E (encourage conservation and carbon capturing in agricultural and forestry sectors).

Regarding the transversal objectives, the measures have an impact on:

- Innovation. The activities of professional training, of acquisition of competences, those of demonstration and information and the visits and exchanges of short duration are basic elements for the improvement of the competitiveness in the productive and industrial sectors. Demonstration activities that can show the application of new technologies, production techniques and the transfer of information are of special relevance in the transmission of information on innovative processes. The support to the processes of knowledge transfer gives applicability in our territory to the innovations that affect each one of the areas of interest.
- Environment. The application of this measure has a direct influence on environmental protection. The improvement in the professional qualification of the agents has a positive influence on the improvement of the management of forests, the protection of biodiversity, the reduction of erosion, the improvement of water management, the conservation of the landscape, the Natura 2000 Network, etc.
- Climate change. The operations of professional training and acquisition of competences mean an increase in the knowledge of activities that contribute to the adaptation and mitigation of climate change among farmers, foresters and industries of the sector, thus favoring a greater dissemination of these activities. Specifically, it means an improvement in the sustainability of the actions, an increase in the use of renewable energies, a more efficient use of inputs, an improvement in water management, it will contribute to avoid the degradation of the land, in the management of pests and diseases, in the emission of greenhouse gases, increase the elimination of carbon by means of sewers...

In the intervention 7201 from the new CAP Strategic Plan, 2023-2029 relative to training 8.1 M € are budgeted.

SUBMEASURE 1.1. Professional training and acquisition of competences

This submeasure is implemented by promoting vocational training activities and skills acquisition, aimed at people with professional relationship or with the expectation of incorporation in the productive sectors of agriculture, agriculture, food industry and forestry, especially aimed at women

The training modalities offered are:

- In-person
- Online (E-learning) learning through a virtual platform using an electronic device
- Blended learning: combines training online with in-person
- Microlearning: modalities based on learning through short digital lessons

This training plan includes both required and non-required training. The objective of the required training is to provide the professionals of the agroforestry sector with the certificates, diplomas or IDs available under the different regulations governing the activities, for which it is mandatory to have the accreditation of specific training to carry them out, as well as in those cases in which it is a requirement to receive certain public aids.

Types of actions that are taught are:

- Training and general qualification courses such as the courses of phytosanitary products handler applicator (basic, qualified, ponte) and their renewal, animal welfare in farms or in transport, training for the personnel of pig or poultry farms or the classification systems of cattle carcasses (SEUROP model), to mention a few examples.
- Conferences
- Themed seminars
- Practical workshops
- Short-duration training to update knowledge
- Visits, including in the programming of some of the aforementioned modalities

In 2021-2022 1,007 training actions were approved with an estimated cost of 1,738,229.58€.

(NOTE.- In the 2022 call, 429 proposals were approved for a total amount of 779,692.59 €. In the 2021 call, 578 proposals were approved for a total amount of 958,536.99 €)

The programmed FEADER for this submeasure in the RDP 2014-2020 is 3,990,000 €

In the new CAP Strategic Plan 2023-2029 3,047,500 € GPT are programmed.

SUBMEASURE 1.2. Demonstration and information activities

The transfer of knowledge and innovation to farmers, agri-food industry agents, and foresters should have an impact on topics preferably related to:

a) Increased productivity in agribusiness and forestry systems, including silvopasturing.

b) Agricultural production mehtods compatible with maintaining the environment

c) The technical-economical management of operations

d) The information and education about new technologies

The typology of actions of infomration includes:

a) Technical seminars in the form of talks, round tables, or workshops

b) Open houses in research centers and training centeres and agricultural experimentation with an emphasis on relaying the results from different lines of research, just like test fields and demonstrations.

c) Round tables

d) Symposiums

e) Congresses

f) Supplementary visits of educational activities or technological transfers

g) Creation of educational information

h) Demonstrations

i) Test fields

Among the objectives sought after by the Transfer Plan which is promoted through demonstration and information activities can be found:

- To develop demonstration and information activities regarding the innovation generated through R&D&I, which can be understood both as the incorporation of novelties and the application of products, practices, processes and technologies already existing in conditions where they were not traditionally used previously (new production alternatives, development of new processes and new technologies, demonstration activities of innovative projects, actions that provide cooperation initiatives...).
- To contribute to ensure that the knowledge gained reaches its ultimate recipients: farmers, foresters and people working in the primary or primary transformation sector, in general.
- To promote the training of the workers of the agricultural, agri-food and forestry sectors in everything related to the technical and economic aspects of their activities, influencing, when necessary, the use of production methods respectful with the conservation and protection of the environment, the improvement of the efficiency of the agricultural production systems, the quality, efficiency and new technologies of the agri-food industry, the reorganization of the productions, the bioeconomy and the application of the ICT to the sector.

In 2021, 121 technological transfer actions were approved, for a total of 449,334.00€.

The programmed FEADER for this submeasure in the RDP 2014-2020 is 3,180,000€.

For the CAP Strategic Plan 2023-2029 3,255,000 € GPT are programmed.

SUBMEASURE 1.3. Exchanges and short-duration visits

This sub-measure seeks to promote short-term exchanges related to the management of agricultural and forestry operations, as well as visits to agricultural and forestry operations, aimed at people of working age, in active employment or with the expectation of joining productive sectors related to agriculture and forestry. It includes:

• Short-term agricultural and forestry management exchanges: exchange scheme that allows farmers, ranchers and foresters to stay in another EU farm in order to learn from another farmer, rancher or forester. The purpose is to improve the exchange of knowledge and best practices and to discover other ways of doing things. The duration of the exchange could be up to 6 months.

• Visits to farms or facilities: consists of a visit to a farm or a facility in order to learn about a specific topic or a specific practice (for example, learning to use a specific machine, conversion to organic farming, etc.). The difference with the farm exchange program lies in the duration of the visit and its objective; visits to farms or facilities are shorter and focus on a thematic issue, following a teaching-learning approach (one farmer knows a technique and another wants to learn it).

This submeasure 1.3 about exchanges and visits is still being developed in all of its capacities and should be put into effect by the end of this fiscal year.

The FEADER programmed for this submeasure in the RDP 2014-2020 is 1,083,000 €.

In the CAP Strategic Plan 2023-2029, 600,000 € is programmed for visits and 450,000€ for exchanges.

MEASURE 02 Advisory services, management, and substitution aimed at agricultural operations (art. 15)

The measure is aimed at supporting specialized advising projects, already existing or newly created, and to guarantee the transfer of information from the centers of knowledge, research and development to the rural environment. Advice to farms covers aspects related to improving the competitiveness of farms, obligations derived from legal management requirements and good agricultural and environmental conditions, biodiversity conservation, efficient use of water and protection of the soil, occupational safety or specific advice for farmers who are setting up for the first time.

Regarding forestry operations, the advice will be related to the correct execution of management plans or equivalent management instruments, the obtaining of forestry products of commercial and environmental quality with forest management certification, the capture of greenhouse gases, forests as a carbon sink, the conservation of forest habitats and their biodiversity or the compatibility between the different uses or exploitation of the forest. The advisory services explicitly include aspects related to climate change mitigation and adaptation.

Specifically, and depending on the type of operation, advice should be given on issues related to forest protection, carbon sequestration, grazing practices, pasture and hay management, cover crops, livestock feeding, efficient use of water, greenhouse gas emissions, ammonia and PM particles, pest management, etc. All this taking into account the guidelines for energy saving and efficiency in agriculture published by the Institute for Energy Diversification and Saving (IDAE), of the Ministry of Industry, Energy and Tourism.

On the other hand, specific measures are included for the owners of agricultural and forestry operations located in the Natura 2000 Network (information, training) on the compliance with the Directive on the conservation of natural habitats and wild fauna and flora (Directive 92/43/EEC) and on the conservation of wild birds (Directive 79/409/EEC).

In order to facilitate that the entities selected to provide advisory services have adequate resources in terms of qualified personnel that receive periodic training and experience and reliability in advisory services, the sub-measure related to the training of advisors is implemented.

SUBMEDIDA 2.1. Apoio para contribuír á obtención de servizos de asesoramento

- Public advising services

- Private advising services

It is a provision of advisory services to individuals or legal entities owning an agricultural, livestock or forestry operation. The advising can be expressed as a single consultation or as a continuous service within the framework of an agreed relationship between the provider and the borrower.

The advising can be facilitated individually or in groups, when duly justified, and should deal with, at least one of the following aspects:

• Obligations at the agricultural operations' level derived from legal managment requirements and good agricultural and environmental conditions;

- Agricultural practices that benefit the climate and environment and the maintenance of agricultural areas and matters related to biodiversity conservation, and an efficient use of water, and protection of soils;
- Measures included in the program aimed at encouraging the modernization of operations, the consolidation of competitiveness,

didas incluídas no Programa destinadas a fomentar a modernización das explotacións, a consolidación da competitividade, sector integration, innovation and market orientation, as well as entrepreneurship;

- Requirements for agricultural operations in terms of Directive regarding water and integrated pest management
- Rules related to work safety or safety rules related to agricultural operations
- Advising specific to farmers who are starting for the first time

Complementarily, it may include information related to climate change mitigation and adaptation; risk management and introduction of appropriate preventive measures to cope with natural disasters, catastrophic events and animal and plant diseases; advice for the development of short supply chains in local markets, conversion to organic farming and sanitary aspects of livestock farming.

The advising to the forestry operations will cover, as minimum, the obligations derived from the fulfillment of the normative in the matter of conservation of the natural habitats and the wild fauna and flora (Directive 92/43/CEE), conservation of wild birds (Directive 79/409/CEE) and Water Framework Directive (Directive 2000/60/CE). It may also include issues related to the economic and environmental performance of forestry exploitation.

In measure 7202 of the CAP Strategic Plan 2023-2029, 4.5 M€ of FEADER funds (7.5 M€ of GPT with 3 M€ for advising and 4.5 M€ for tutoring) will be allocated for the whole period.

SUBMEASURE 2.3. Support for advisor training

The objective of this sub-measure is the training of advisors to facilitate that the entities selected to provide advisory services have adequate resources in terms of qualified personnel, with regular training and experience and reliability in advisory services in the areas in which they provide the service. The final addressees of the training will be the technical personnel of the recognized consulting entities and personnel of the Administration itself. For its correct execution, the training activities will be able to integrate theoretical and practical courses, seminars, information sessions, workshops, demonstration actions, information and dissemination actions, dissemination and awareness campaigns, training visits, design, edition and publication of didactic and informative material.

The execution of this sub-measure is carried out through direct investment (for the initiatives organized and executed by the autonomous administration itself or by means of agreements with entities with teaching capacity) or through the processing of public contracts. The aid can take the form of a pluriannual subsidy, based on the presentation of a training plan for advisors for the entire programming period.

It is a submeasure that for the first time will be managed by AGACAL because it is in the process of preparation and construction.

The programmed FEADER for this submeasure in the PDR 2014-2020 is 1,212,000 €.

The programmed CAP Strategic Plan 2023-2029 for advisor training is 448,500€ (747,500€ GPT).

MEASURE 16: Cooperation (art. 35)

Submeasure 16.1 orients the consolidation in Galicia of the structural elements of the EIP in terms of sustainability and agricultural productivity, establishing the basic instrumental scheme of financing, support and operation of innovation initiatives under the rural development program for the period 2014-2020.

This submeasure will have the following structure:

- 16.1.1 EIP operational groups for agricultural productivity and sustainability
- 16.1.2 Aid for EIP group projects

The European Innovation Partnership (EIP) is the framework in which innovation initiatives in the field of agricultural sustainability and productivity are accommodated. The instrumental structure of the EIP is articulated around the European network that should make possible the connection of operational groups, advisory services and researchers. This primary network, of community scope, will integrate those of secondary character, national and regional, so that each territory can develop adequately to its particular characteristics.

The second structural element of the system is the operational groups (OG), formed by, at least, two interested actors such as farmers, researchers, advisors, non-profit entities and companies of the agri-food sector or that develop activities in the forestry field, for the achievement of the exposed objectives through the implementation of an innovative project.

The operative groups are the main vehicle to fulfill the objectives of the EIP, oriented to the identification of concrete problems or opportunities in the agri-food and forestry sectors, from which innovative initiatives are generated to provide answers and solutions to these difficulties or opportunities detected, always within the scope of the objectives of the EIP and in a coherent way with the RIS3 strategy of Galicia.

The innovation agents play an essential role in the animation and coordination of groups and projects, serving as catalysts for private investment in R&D&I projects.

In this sense, the operative groups can count on an innovation agent, who will be the person or organization that looks for and puts in contact the suitable actors to carry out an innovative project, without necessarily having to be involved technically. His or her tasks may also include, among others, assistance in outlining and specifying the project idea, the search for funding sources, as well as the preparation of the funding application.

The innovation agent can be an entity integrated within the operative group or a person or entity contracted by the operative group. Submeasure 16.1 aims to consolidate in Galicia the structural elements of the EIP in terms of agricultural sustainability and productivity, establishing the basic instrumental scheme of financing, support and operation of innovation initiatives under the rural development program for the period 2014-2020. This submeasure includes two types of operations:

• Operation 16.1.1: Aid to the creation of EIP operation groups

• Operation 16.1.2: Aid for the exectution of EIP operation group projects

The aid for the creation of operative groups (16.1.1) is aimed at the definition, elaboration and search for partners for innovative projects, that is to say, the creation of the group where the necessary costs to articulate the project, prior to its approval as such, will be eligible. The aid of this operation will be directed to finance the previous phase (preparation of the group, search for partners, coordination and animation meetings, writing of drafts, etc.) of the innovative projects, with the objective of supporting the elaboration of consistent and well-structured projects.

Operation 16.1.2 is aimed at financing the selected innovative projects, which will cover the expenses derived from the execution of the project.

The operations included in this sub-measure will have a direct effect on the focal area.

- 3A (improve the competitiveness of primary producers by better integrating them into the agri-food chain through quality schemes, adding value to agricultural products, promotion in local markets and short distribution circuits, producer groups and organizations and interprofessional organizations).

At the same time, they will have side effects about the focal areas:

- 2B (facilitate the entry of adequately-trained farmers into the agricultural sector, specifically for generational substitution);
- 5B (more efficient use of energy in agriculture and in the transformation of agricultural products) and
- 5C (facilitate the supply and use of renewable energy resources, subproducts, waste and other non-food raw materials to drive the bioeconomy's development).

The FEADER programmed for this submeasure in the RDP 2014-2020 is 9,120,000€ (480,000€ for operative group creation and 8,640,000€ for carrying out operative group projects).

In the current call for operative group projects there are 6,127,330.00€ GPT available.

In the new CAP Strategic Plan 2023-2029, 6.4M€ (8M€ GPT) are programmed in intervention 7161.

SUBMEASURE 16.20 Aids for pilot projects and development of new products, practices, processes, and technologies

The measure finances cooperation initiatives in innovation in the agricultural, food and forestry sectors. The initiatives will result in the implementation of pilot projects or the development of new products, practices, processes and technologies. In no case will basic research projects be financed. The development can be understood both as the incorporation of novelties and the application of already existing products, practices, processes and technologies in conditions where they were not traditionally used previously. However, it will not be possible to finance projects already carried out in similar territories and conditions.

The programmed FEADER for this submeasure in the RDP 2014-2020 is 13.98 M €.

In the 2022 call for pilot projects, 2,401,315.00€ GPT will be available.

For the new PEPAC (2023 to 2029) 7.2 M € (11 M € GPT) are programmed in intervention 7162.

CAP Strategic Plans 2023-2027
The AKIS for a modern and sustainable agriculture: the role of advisors, supporting CAP interventions and Horizon Europe projects

Lugo, 22 June 2022

Inge Van Oost
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European Commission – DG AGRI D1 22

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1.- WHAT IS AN AGRICULRTURAL KNOWLEDGE AND INNOVATION SYSTEM (AKIS)?

What: AKIS is the organisation and interaction of persons, organisations and institutions who use and produce knowledge and innovation for agriculture and interrelated fields.

Who: he main players of the AKIS are: farmers/foresters, advisors, researchers, (farmer) organisations, NGOs, networks, education, retailers, media, services, various ministries…: they all produce and need knowledge!

Why: The aim is to create a regional/national innovation ecosystem by enhancing knowledge flows between the AKIS players as well as strengthening links between research and practice.

Brief ¨What is AKIS¨:

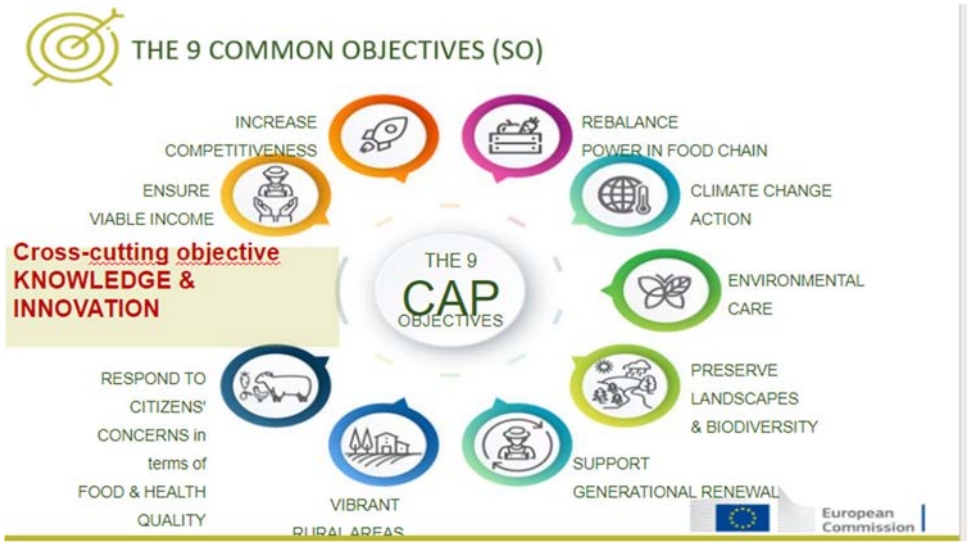
https://ec.europa.eu/eip/agriculture/sites/default/files/eip-agri_brochure_knowledge_systems_2018_en_web.pdf

AKIS at the heart of the agricultural innovation ecosystem => Cross-cutting CAP support to Systematically share Knowledge and Innovation in Agriculture and rural areas including in whatever farming and rural activities automatically relate to (= environment, climate, biodiversity, consumers and citizens, food and non-food systems including processing and distribution chains, etc)

Where does the AKIS policy come from?

In their 2008 declaration, the researchers of the Standing Committee of Agricultural Research (SCAR) stated that the classical linear research model does not function anymore to have real impact in the field. The current CAP AKIS policy and potential interventions can make use of the current formats and experiences from MS. Experts from about 24 MS from the SCAR Strategic Working Group collected this in the AKIS4 report, and based it on their discussions and own practical experiences. In the report much about AKIS in all its aspects is explained and a long series of possible types of interventions and concrete examples given. The report is available on the Europa "Future CAP" website and is called "Report: preparing for future AKIS in Europe". You can download it here:

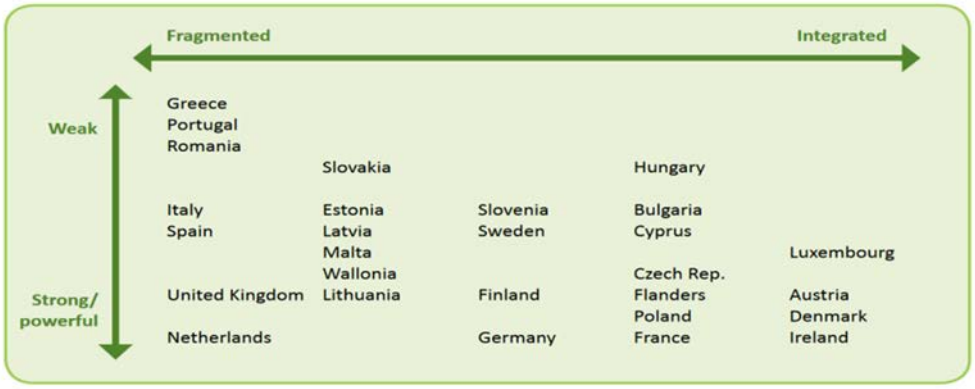
https://ec.europa.eu/info/food-farming-fisheries/key-policies/common-agricultural-policy/future-cap#innovation or order a paper copy



1.1.- WHY AKIS?

A reinforced AKIS integrates all AKIS actors and ensures knowledge flows inside MS & across borders

AKIS coordination will bring actors together on a structured and regular basis, creating continuous interaction to speed up knowledge exchange, knowledge flows, innovation and most of all: implementation in practice (=> Cross-Cutting Objective on «Modernisation»)



PROAKIS Study: Characterizing MS'AKIS

2.- The EIP-AGRI IN SHORT: SAME PRINCIPLES AS AKIS

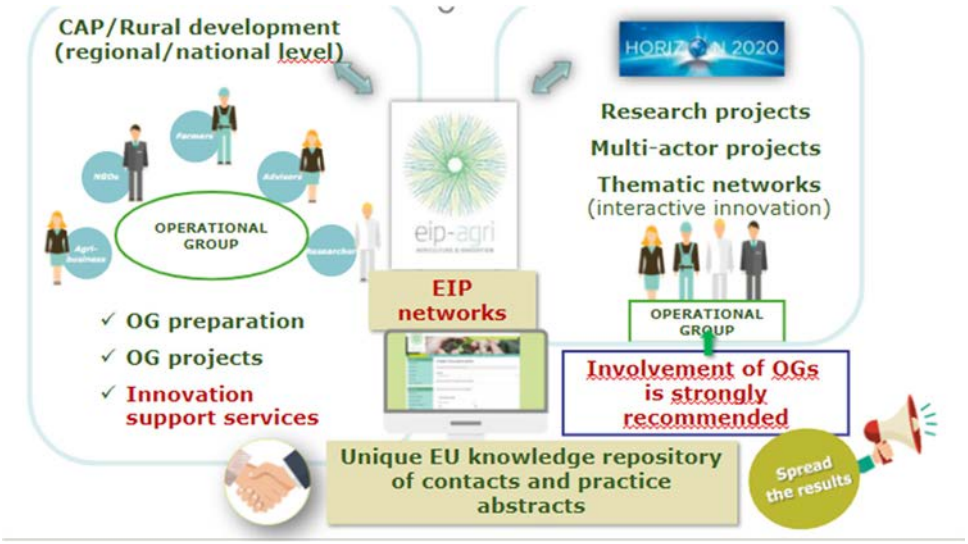
The EIP-AGRI applies an overarching "Open innovation" concept based on the interactive innovation model (applied in RD Operational Groups (Art 127) and H2020 Multi-Actor projects):

Collaboration between various actors to make best use of complementary types of knowledge (scientific, practical, organisational, etc.) in view of co-creation and quick spreading of solutions/opportunities ready to implement in practice.

EU wide EIP network linking actors: communication, partnering, dissemination, knowledge flows and collecting practice needs (Open science)

Connecting Policies: the bigger EIP picture:

How to find each other? => AKIS needed to improve synergies



2.1.- AGRICULTURE WILL BE MORE AND MORE KNOWLEDGE-INTENSIVE

EIP-AGRI; What did we achieve?

- 26 (27) Member States, 98 rural development programmes implementing EIP Operational Group ¨innovative projects¨
- In 2014-2022 (7 years) more than 2500-3000 OGs running or finished (still 3,5 years to go)
- Next CAP: around 6500 OGs for only 5 years
- 190 multi-actor projects under Horizon 2014-2020 (two thirds of total projects) for 1 bio Euro – again many more to come….=> A growing and thriving network:

www.eip-agri.eu

3.- FROM EIP-AGRI 2014-2020 TO AKIS STRATEGIC PLANS 2023-27 AND GREEN DEAL RELEVANCE

Provisions on modernisation in the CAP Strategic Plan Regulation post 2020

What's changing?

- Funding innovative projects... will now be supported by a whole innovation ecosystem systematically interlinking people and projects (AKIS)

AKIS in CAP Strategic Plans (Art.114 - modernisation)

The CAP Strategic Plans shall contain:

1. **Their contribution to the cross-cutting general objective related to fostering and sharing of knowledge, innovation and digitalisation, notably by describing:**
   a. The organisational set-up of the AKIS (which adaptations after SWOT?)
   b. How advisors, researchers and CAP networks will work together within the framework of the (future) AKIS, and
   c. How advice and innovation support services are provided
2. **A description of the strategy for the development of digital technologies in agriculture and rural areas**

3.1.- FOUR STRANDS OF ACTION RELATED TO THE AKIS STRATEGIC APPROACH

– **Enhancing knowledge flows and strengthening links between research and practice**: incentivise researchers for their impact beyond academia, e.g. in their careers, by making practice ready outputs, meet practitioners frequently/thematic events, organise on-farm

demonstrations where farmers and researchers meet and talk, education for researchers on interactive innovation approaches etc.

- **Strengthening farm advisory services within MS' AKISs:** capturing and sharing farmers' needs, acting as innovation brokers/facilitators, participating in and sharing knowledge from OG innovative projects, advisors' training and thematic events to update knowledge, cross-visits (learning peer-to-peer), spend time with researchers,…
- **Incentivising interactive innovation projects (OGs, H2020 MA):** help connecting actors, facilitating cross-border and transnational calls/knowledge exchange, establish innovation support services to develop projects and capture farmers' foresters needs and innovative ideas, support intergenerational renewal by experts' collaboration…
- **Support digital transition in agriculture:** EIP OGs on digital innovation, build, interlink and make use of knowledge reservoirs for practice, digital skills development,…

.

3.1.1.- – Enhancing knowledge flows within the AKIS and strengthen links between research and practice

- ✓ Further development and better funding of the EIP CAP networks: Member States' CAP networks should filter, summarize and translate (!!!) all info relevant for their country about OGs, H2020 MA projects, other relevant EU or national (research) projects (source: material on EIP website: practice abstracts, videos, photos, links to useful websites and projects etc.).
- ✓ Create knowledge centres, platforms and digital knowledge reservoirs
- ✓ Specific incentives for researchers very much needed: share results easy understandable in dissemination channels for farmers
- ✓ Funding: Technical Assistance fund & Art 72 for actions and national funding, re-organisation of tasks within research bodies.
- ✓ National thematic networks can deliver for training and education (see 1.3), while also interlinking a mix of actors. Organise bottom-up calls and do efforts to disclose the needs of farmers, be it in group or one-to-one (role of advisors): regular face-to-face exchange thematic events,…
- ✓ CAP networks should organize on a regular basis meetings between research, farmers and advisors: Researchers to share their work with practice, learn researchers to work interactive and listen to farmers' and advisors' concerns
- ✓ Soft ways can improve knowledge flows e.g. co-location of research, advice and networks (+education, farmers' organization, food cluster, etc.): co-location is cheap, efficient and informal

3.1.2.- AKIS & EIP-AGRI prepare an EU knowledge reservoir for practice

Will help the advisors' back-offices for innovation support and more competent advice.

- FARMBOOK: MS plan or already have knowledge databases, we need to ensure they become interoperable worden, to save costs and avoid duplication through cooperation!
- MODERNAKIS project (2022-2029): helps MS learn from each other how to build a well-functioning AKIS and what are good AKIS interventions (exchanging experiences and train new actors)
- ATTRACTISS project (2022-2027) helps the building of innovation support services across the EU and shares the related knowledge
- EU advisory networks, EU thematic networks, EU thematic networks built on at least 5 OGs from 3 MS

3.1.3.- AKIS-EIP-AGRI. Preparing for EU knowledge reservoir(s) for practice serving advisors' back-offices for innovation support and advice

MS is already creating databases (EIP-AGRI in DE, FR, back-office and ISS in LT, etc.)

- EURAKNOS project (Thematic Network of Thematic Networks, midterm Jan 2020)
- EUREKA project (feasibility EU knowledge reservoir for practice, kick-off Jan 2020)

- Farmbook project starting Sep 2022
- Running 7 years, build on the EUREKA pilot & IT standards/language (see their guidelines)
- Involving all AKIS coordination bodies/platforms for tests and feedback
- 27 Member States to become interoperable

Making at EU level an increasing volume of practice-oriented knowledge easy accessible, interactive and attractive!

4.- STRUCTURING AND ORGANIZING THE AKIS

4.1.- AKIS COORDINATION BODY

The AKIS coordination body, (inter)acting as the spider in the AKIS web of the country, interconnecting all key AKIS influencers

- The AKIS coordination body is the contact point for all AKIS related issues towards the European Commission.
- It should cooperate with AKIS multi-actor platforms across the geographical levels in the country, following day-to-day AKIS interventions and actions,
- asking for modification of the CAP plan if needed, while continuously supporting interaction and implementation of the AKIS plan.
- The body should keep an overview on the progress and performance foreseen in the CAP plan, using a dedicated framework for monitoring and evaluation, in particular those related to the CAP indicators (Annex I of the AKIS tool, see Section 2.6).
- Seek collaboration with relevant Ministries, e.g. of research, innovation, environment (develop CAP measures in OGs), education etc.
- The above responsibilities make it most likely that the AKIS coordination body is situated in the RD Managing Authority of the Ministry of Agriculture
- It is the task of the AKIS coordination body to organise the advice and advisors, ensuring coverage of all obligatory fields in Art 15 in a smooth way which does not produce overly administrative burden, and
- It keeps advisory support open for all public and private advisors, in particular the most trusted ones

4.2.- THE CHANGING ROLES OF ADVISORS IN CAP

Art 15 and 78: Farm advice is now organised within the AKIS structures in CAP Strategic plans

- Advising farmers and other beneficiaries of CAP support to be included in the CAP plans
- All advisors shall be integrated within the AKIS in an inclusive way, to be able to cover economic, environmental and social dimensions and to deliver up-to-date technological and scientific information developed by R&I
- Advisors must be impartial and be able to provide Innovation support, in particular for preparing and implementing Operational Group projects of the EIP AGRI

4.3.- INTEGRATING ADVISORS WITHIN THE AKIS: EXAMPLES OF SUPPORT

- ✓ Advisor giving holistic on-farm one-to-one advice on economic, environmental and social dimensions, capable of delivering up-to-date technological and scientific information developed by R&I (very broad scope)
- ✓ Specialist advisor on a certain theme, on-farm or off-farm (“back-offices”)
- ✓ Advisor as partner in an EIP OG, research project, communication event, …
- ✓ Provide individual innovation support: capture grassroots innovative ideas and accompany the preparation and implementation of an EIP OG (CAP networks can bring innovation brokers together to learn from each other)
- ✓ (Obligatory yearly) training of advisors on themes, or learning new approaches and skills (e.g. social farming, digital, short chains, …)

- ✓ Advisors joining/organising knowledge exchange events with researchers, farmers etc., making work programmes, exchanging practical needs
- ✓ Advisors writing in agricultural journals, websites, social media, newsletter, EIP event coordinator
- ✓ Advisors can provide training to farmers, farm workers etc. (e.g. IPM)
- ✓ Advisors leading a multi-actor thematic network (e.g. RMT) at national/regional level
- ✓ Advisor organizing a farm demonstration, a fair, another type of event
- ✓ Advisor going abroad to learn and come back to train and disseminate new knowledge ("advisor mobility budget")

Result: advisors are integrated within the AKIS system (in a fully integrated manner, serving and making use of all kind of interventions)

4.4.- OUTCOME OF STUDY ON INNOVATION SUPPORT FOR OGs

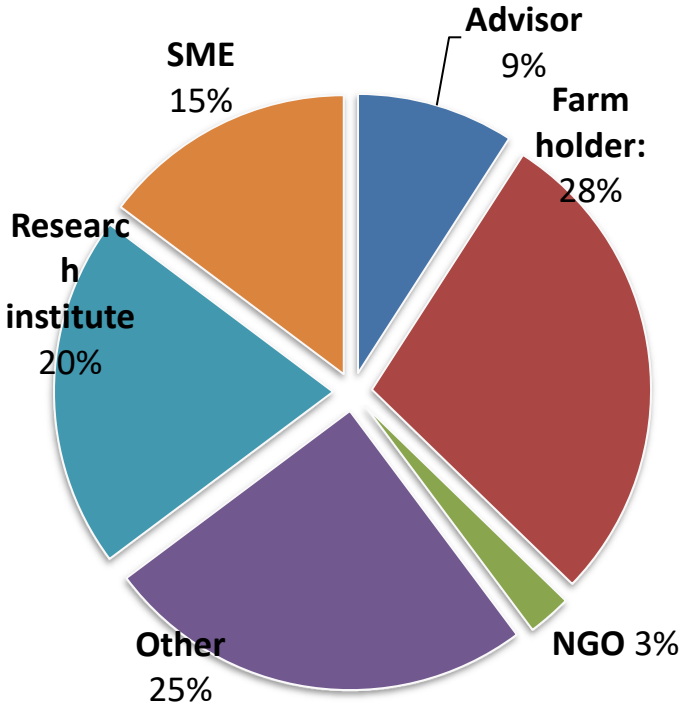
Advisors and innovation support services (ISS) should be more involved: now often missing in EIP OGs (9% advisors only)

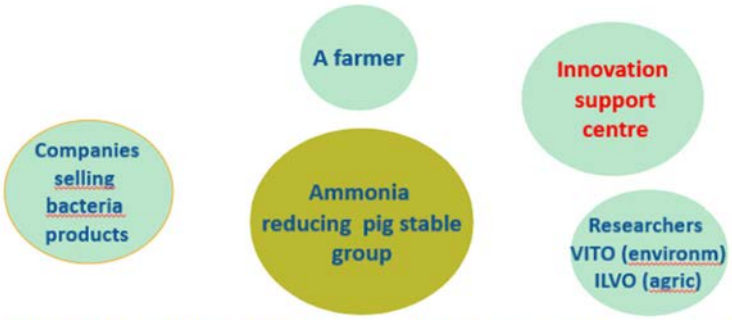
Be aware that advisors are the best multipliers

Advisors and ISS (= inn. facilitators) can have an important role in interactive innovation processes:

- *Capture* practice needs
- *Broker* to set up OG's interactive innovation projects (obligation post 2020)
- *Facilitate* interactive innovation projects (obligation post 2020)
- *Disseminate* newly generated knowledge already during the project
- *Build bridges* between CAP and Horizon programmes as innovation support service

Art 15(4) = **OBLIGATORY**: one to one innovation brokering: illustration of the "relevant actors" when capturing grassroots innovative ideas for an OG

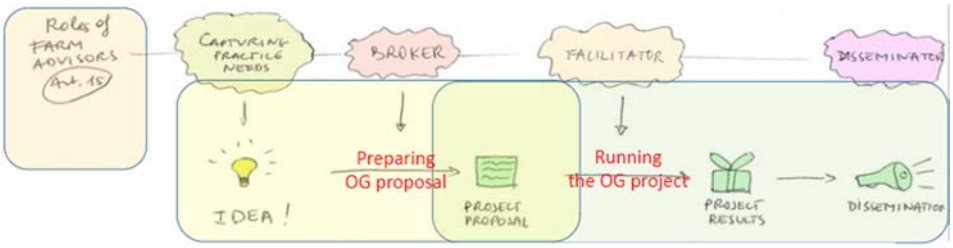




Project objective: develop a pig stable reducing ammonia emissions by 50 % in a more cost-efficient way than existing stable systems (idea from a farmer, brokered by the Innovation Support Centre)

4.5.- NEW ROLES FOR FARM ADVISORS IN INTERACTIVE INNOVATION PROJECTS

- Capture practice needs
- Broker to set up interactive innovation projects
- Facilitate interactive innovation projects
- Disseminate newly generated knowledge



4.5.1.- Innovation Support Services Functions

- Brokering function
- Coordination and facilitation of projects as an intermediate between partners
- Innovation promotion and awareness raising
- Coaching farmers towards innovation (individual advice)
- Brainstorming events and thematical animation
- Biannual innovation prize: 150 candidates, 10 final prizes, one winner- and a lot of communication in the farm journals promotes innovation
- Dissemination of innovative results
- Connect with SMEs and other innovation services and funding bodies

(see example of innovation project "Distrikempen" video from Agrispin H2020 project)
https://www.youtube.com/watch?v=fbiAGzlf3IA

4.5.2.- Innovation Brokering Function: How to capture ideas?

- Capturing bottom-up ideas from the grass-roots level
- Getting an innovation project to start by being the go-between: helping single actors that might have difficulties finding adequate partners
- A close connection with and understanding of agriculture is important
- A cross-cutting approach beyond existing sectors, regions, initiatives, and institutes brings added value
- Helping to formulate practice abstracts and web tools/pages

- Different approaches may be useful, i.e. vouchers, etc. (¨simplified cost¨) for easier use and reduction of administrative burden – Art 77

5.- STRENGTHENING FARM ADVISORY SERVICES WITH THE AKIS

- ✓ Innovation support must be available: advisors acting as innovation brokers/facilitators, capturing needs and sharing outcomes
- ✓ Regular interaction with researchers, e.g. in workshops, (bi-) annual meetings, exchanges during on-farm demo, being located in the same building helps informal contacts
- ✓ A back-office with specialist advisors who have thematic focus (not only sectorial focus!) is the best investment to support field advisors
- ✓ Ensure regular participating in and sharing knowledge from OG innovative projects
- ✓ Region/country wide advisory networks for all advisors to share newly generated knowledge e.g. from innovation projects or after visits abroad, as well as sharing (digital) tools and instruments
- ✓ Advising should be listening and interactive
- ✓ Deliver holistic advice targeted to the farm's and farmer's context
- ✓ Advisors' training: sufficient amount of days obligatory per year, as for other professions, especially on innovative techniques and outcomes of OGs/MAA and soft skills; make it attractive and qualitative, e.g. use of common advisory tools, back-office support for all advisors
- ✓ Enable farmers to find the advisor which can help him best: public registers with info on education, experience, continuous professional development, cross-border exchanges, various thematic focus, membership of advisory platforms, etc. – very little EU obligations, only obligatory training and integration of advisors within the AKIS
- ✓ Invest in tools for advising (e.g. measurements, digital)

Two main instruments for future AKIS:

Innovation support service – "Innovation hub" (which model? One-stop "out of the box" –hub taking care of cross-cutting issues + interacting with sector specialist hubs?)

Back-office for advisors – "knowledge hub"

6.- HOW CAN CAP NETWORKS HELP STRENGTHEN INNOVATION AND KNOWLEDGE EXCHANGE ON ALL 9 CAP OBJECTIVES?

1. Collecting and sharing outcomes of 3200+ EIP OGs from current CAP
2. Collecting and sharing outcomes of 190+ H2020 Multi-actor projects + Horizon Europe
3. EIP website + knowledge reservoirs being prepared under H2020
4. Connecting OGs with Horizon projects = great added value
5. All this material provides great input for local AKIS actors (farmers, advisors, education, trainers, media, businesses, researchers, ...): training for farmers and for advisors, peer-to-peer events, demonstrations, website, e-learning, ISS etc.
6. Organising events to link and network AKIS actors for future cooperation
7. Start now, brainstorm in AKIS coordination platforms

7.- INTERACTION OF CAP NETWORKS WITHIN THE HORIZON 2020/HORIZON EUROPE (HE) DIMENSION OF THE EIP-AGRI

1.The synergies organized between Horizon projects and EIP Operational Groups induces the need for intensifying CAP innovation networking with Horizon Europe National Contact Points: a monthly encounter could be useful

2. Promote and make MA & OGs visible: database with all OGs & MA projects in the MS + contacts + thematic categorization. Useful for HE Thematic networks and MA projects as well as for cross-border OGs

3. Follow the yearly Horizon Europe calls and be pro-active: present the MA topics to OGs, make a brokering event MA-OGs, advisors and researchers, think about cross-border events around specific topics in a topic where OGs could join. Horizon consortia should be better enabled to find the OGs they would like to have in their project thanks to better functioning AKISs, in which good linkages are constructed.

4. Also when Horizon projects are running, OGs or their partners should still be invited to events of their interest, and vice versa: give them support (NCPs)

8.- SUPPORT AKIS WITH DIGITAL TOOLS

- ✓ Interlink all public data to enable additional services, e.g. Lithuania RECAP app, Estonia GIS/LPIS based layers combining soil fertility, erosion zones, spreading harmful organisms etc., irrigation needs
- ✓ Set up platforms to discuss how to manage the digital transition, find the most urgent needs (Austria)
- ✓ Finance OGs on useful free of charge digital applications and make them publicly available, e.g. for pest management, recognising weeds, etc.
- ✓ Organise training on digital skills for farmers, advisors etc.
- ✓ Build knowledge reservoirs that are interactive and quality checked (e.g. LT, EURAKNOS), and use common standards as much as possible
- ✓ Share digital advisory tools, reducing the maintenance cost (Fairshare)

9.- WHAT WILL HAPPEN AFTER 2022?

"What stops us is the fear of change. And nevertheless, it is on change that our salvation depends"

Inge Van Oost

European Commission – DG AGRI D.1

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The Galician System of Agricultural Knowledge and Innovation (SGCIA-AKIS). Designing a new model of rural advising for Galicia from the Association of Galician Rural Advisors (AARG).

Lugo, 24 June 2022

Elena Piñeiro Sotelo
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Presidente of the Association of Galician Rural Advisors (AARG)

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Lugo, 24 June 2022

Elena Piñeiro Sotelo
asesoresruraisgalicia@gmail.com
Presidente of the Association of Galician Rural Advisors (AARG)

1.- INTRODUCTION

Galicia, our region has an eminently rural identity, and has exceptional geological and climatic conditions for agricultural and livestock production.

In the last two decades, rural Galicia has undergone an important transformation and modernization, although the number of farms has decreased considerably, there are farms that are well sized and economically viable, forming a very important business fabric for our region. Nowadays, there is a social change in which the young people who used to live in the countryside and looked for other professional destinies, now choose to be trained and are a real generational relief.

The Rural Advisors who are represented here by a wide spectrum of professionals, workers both in the public and private sector (agricultural extension agents, cooperative technicians, technicians of agricultural organizations, consulting entities and self-employed professionals), we participate in this transformation from different areas:

- We set our objectives regarding agricultural policies and we bring them forward
- We adapt decrees and regulations to the specific reality of each farmer
- We train ourselves to offer services in a changing world which demands us to be up-to-date
- And of course, we do as Xose Antonio Meijide “Tonechu” said, we are ¨agents of changing minds¨

Given the results, the effort was worth it.

With the evidence which we have to move on, and keeping in mind that our work is often carried out:

- In a wide territorial space, where we can work with a certain level of isolation and there aren’t always situations for meetings and information exchange.
- Agricultural advising is itself very interdisciplinary and can give way to producing discoordination among professionals
- Where the amount of information to manage is very large (decrees, laws, European, national, and regional regulations) as well as an excess of burocracy when practicing our job in public entities with different rhythms and deadlines,

We had more than enough reason to understand that we should form an association to face our day-to-day work and the challenges which present themselves.

2.- CREATION OF THE ASSOCIATION OF GALICIAN RURAL ADVISORS

Therefore, on 6 September 2021, the ASSOCIATION OF GALICIAN RURAL ADVISORS was formed, with the following objectives:

- To represent rural advisors
- To promote continuous training of advisors
- To establish and maintain relationships with technical, scientific, professional, national, or international organisms.

Our association is working to be represented in the governmental bodies that are developing agricultural policies and aid. We want to be able to transfer our opinion on how these policies will affect the field in which we work and how to implement them.

We want to have a voice so that from the Administration they design effective training plans. We understand that the continuous formation of the rural adviser is necessary, as well as the creation of a network of transmission of knowledge and collaboration between the public and private advising. We support multidisciplinary working groups.

Now that a new chapter is beginning, we have some very serious challenges to face:

- Climate change
- Demographic challenges, maintaining population in the rural
- Recovering farm lands
- Digitalization
- The new CAP, etc

3.- THE RURAL ADVISOR WITHIN THE AKIS FRAMEWORK

The Rural Advisor in Galicia is an important asset of AKIS, since our people value the trust and proximity that we offer in our work, so we are the transmission belt between them, agricultural research and education and training.

The objective is to coordinate, accompany and help in the interpretation and to formulate proposals for improvement.

We understand that with this, not only do we improve ourselves, but also the people we advise and the Administration improves in the application of Rural Development policies.

From the "Association" we consider that in the current vision of AKIS, the role of the different actors is not so important, what is important is ensuring the flow of information and knowledge among them, especially when it comes to innovation, cooperation and interaction would be the key elements.

At present in Galicia there is no model of consultancy, that is why we have just presented to our Regional Minister of Rural Environment, the model that, we understand, adapts best to our community.

4.- PROPOSAL OF AN ADVISING SYSTEM IN GALICIA

As a general formulation, we propose a model of organization of mixed public-private, open and flexible advisory services, in which the essential core of the model is the RURAL ADVISOR.

A public-private model would take advantage of the strengths of each of the two areas:

- Human capital
- Knowledge
- Proximity
- Organizational system

4.1.- PUBLIC ADVISING

Public advising at the district level centered in the District Agricultural Offices (OACs), which should possess a multidisciplinary team with specific training in advising. Its funtions are:

- Coordinating advisor training of the area
- Coordinating farmer and rancher training of the district
- Supervising the advisors' work

The public advising coordinated by the central services or territory delegations of the Council of Rural Environment would be in charge of:

- Continuous training of OAC technicians and private advisors
- Promoting periodical educational seminars where it is possible to interact and share problems in the performance of advisory work for the continuous improvement of the public-private model itself.
- Creation of multidisciplinary teams at the level of central services which provide direct support to OAC field technicians
- Coordination of the training topics of farmers and ranchers

4.2.- PRIVATE ADVISING

Private advisors should ensure their impartiality and the lack of a conflict of interest in all phases of the advising

They will have at their disposal specific training and/or professional experience in the sector. Recommending multidisciplinary teams.

They would focus on:

- Technical-economic management of operations. Identification of critical points and enactment of feasibility plans
- CAP advising, fullfillment of management and conditionality requirements, conditions, and agreements of
- Incorporation of youth into agricultural activities: guide, support, accompany
- Risk management
- Farm innovation and digitalization
- Practices againste antibiotic resistence, biosecurity, and integrated pest control
- Advising in waste and pesticide management. Management of the nutrient cycle and sustainable fertilization.
- Certification of good agricultural practices, pasturing, and animal wellbeing.
- Support to land management, being agents of dynamization, facilitating the technical work and intermediation in land mobility: private exchanges, agroforestry zones.

4.3.- COORDINATION OF THE ADVISING MODEL

The implementation of this mixed public-private model that we propose requires the creation or existence of a COORDINATION and DYNAMIZATION unit or a unit that ORGANIZES and PLANS the resources and activities of both models.

Agroforestry Systems and Climate Change

Lugo, 24 June 2022

Antonio Rigueiro Rodríguez, Mª Rosa Mosquera Losada, Nuria Ferreiro Domínguez, Mercedes Rois Díaz

Department of Crop Production and Engineering Projects

Superior Polytechnical School of Engineering

TABLE OF CONTENTS

1.- THE EU'S INTENTION

- Reduce 310M tons of CO2 in the EU by 2030 (14%, 42M, from the agricultural sector)
- Carbon neutrality in soil and agriculture by 2035

Agricultural activity, farming, and food system management currently generate 20-30% of greenhouse gases

2.- EUROPEAN COMMITTEE OF THE REGIONS (2022)

- Trees for Life (EU Green Pact): 3000 million trees by 2030. One tree = 150 kg CO2/year
- Regional adaptation strategies (low-emission agriculture)
- Increase natural carbon sinks
    - Soil plays an important part in compensating greenhouse gas emissions because it can contain close to 85% of carbon in terrestrial ecosystems

TWO STRATEGIES:

Low Emission Agriculture (preferred CoR):

Economical model that promotes practices which reduce emissions and increase retention

More sustainable agricultural systems

- → Peatland rewetting (3% land surface, 20% of world's soil carbon)
- → Agroforestry Development: agroforestry practice which combines trees and/or shrubs with agricultural crops on the same plot of land
- → Maintenance and improvement of organic C in soil from soil minerals
- → Carbon balance on livestock farms

Store C in Trees and Soils:

Pay farmers and foresters for the amount of C retained

3.- AEI EIP-AGRI (INNOVATION)

The focal group about ¨Carbon sequestration in arable soils¨ identified the following management practices which capture CO2 from agricultural soils in the long term, while also improving soil quality

- Keep the soil covered: intercropping, cover crops, crop rotation (including perrenials), agroforestry practices
- Increase soil carbon through the addition of organic material from local sources
- Reduce decomposition of organic material by reducing soil disturbance: minimal plowing techniques and precision agriculture
- Control soil humidity through water use management

International organizations such as the Global Research Alliance and FAO, which established the concept of Climate-Smart Agriculture, as well as the Intergovernmental Panel on Climate Change identify Agroforestry as an emission-neutral technology that must be dully employed to reduce GHG in the atmosphere. The 2023-27 PAC also pays more attention to them more than in the past and included it on the list of ecoscheme practices.

Agroforestry systems are important for the transformation of conventional agriculture to Climate-Smart Agriculture, which increases productivity in a sustainable and resilient way, reduces GHG, and contributes to the achievement of food-security and development goals.

Keep the tree in the countryside, or return the tree to the countryside

Farming mechanization

Land consolidation

Irrigation projects

Abandonment of small farms

4.- AGROFORESTRY ALTERNATIVE

In addition to giving us products, trees also offer us other services:

- Soil conservation (erosion)
- Improve soil fertility (N fixation)
- Nutrients
- Improve microclimate
- Windbreakers
- Living fences for property lines, improve the scenery
- Carbon fixation
- Biodiversity protection
- Biological pest control
- Attract pollinators

Growth by volume with bark and yearly CO2 fixation of the main species of Spanish forests in the most representative range of quality for each of them

Species:	**Average Yearly Growth:** (m3/ha and year)	**Average Yearly CO2 Fixation:** (t/ha and year)
Castanea sativa	6-10	10-20
Eucalyptus sp. (cornisa cantábrica)	15-25	30-50
Fagus sylvatica	4-6	8-12
Juglans regia	2-6	4-12
Pinus canariensis	2-6	3-8
Pinus halepensis	2-5	4-9
Pinus nigra	4-6	6-9
Pinus pinaster atlántico	8-12	11-16
Pinus pinaster mediterráneo	2-4	3-5
Pinus pinea	2-4	4-7
Pinus radiata	15-20	16-22
Pinus sylvestris	4-6	6-9
Populus sp.	15-30	22-45
Prunus avium	5-8	10-16
Quercus faginea, Quercus pyenaica (monte bajo)	2-4	5-11
Quercus ilex (monte bajo)	1-4	3-12
Quercus robur, Quercus petraea	2-6	4-12
Quercus suber	2-4	6-12

SILVOARABLE SYSTEMS

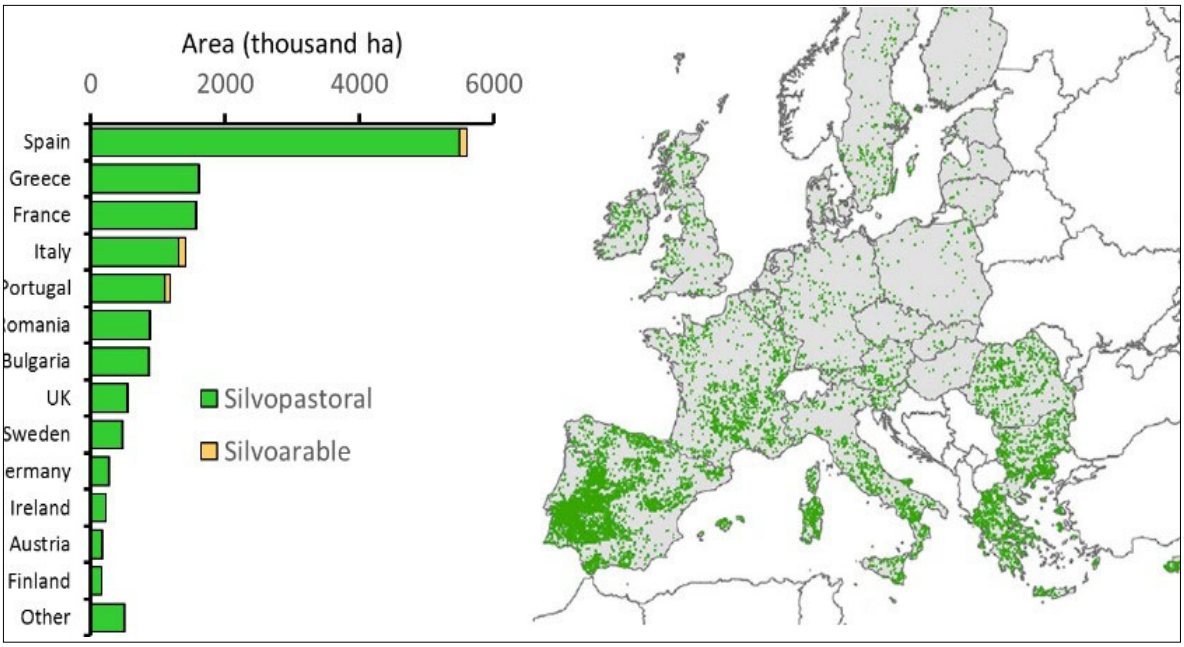
LIVING FENCES

RIVERSIDE FORESTS

SILVOPASTORAL SYSTEMS

FAMILY VEGETABLE GARDENS

AGROFORESTRY SYSTEMS IN EUROPE



15.4 million ha.
3.6% total area
8.8% agricultural area

In the world there are approximately 1 billion hectares of Agroforestry Systems (Nair et al. 2010)

Walnut trees with grains, France

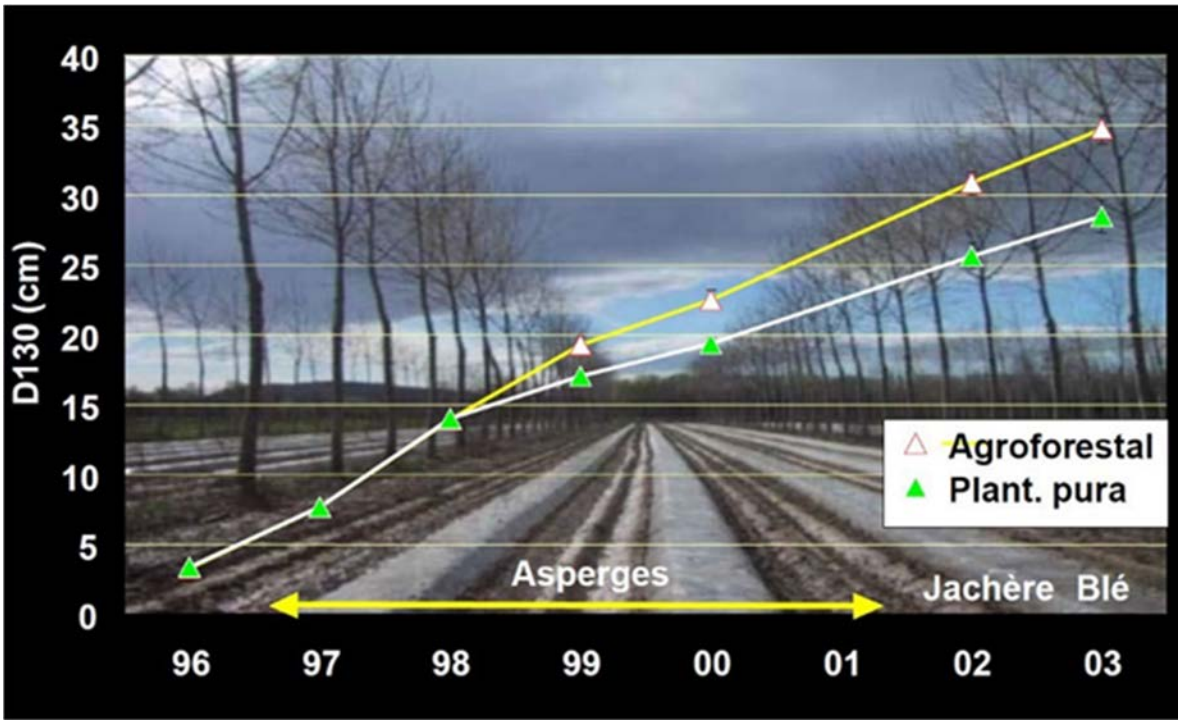
Poplar trees and wheat, England:

MEDICINAL PLANTS WITH CHERRY TREES:

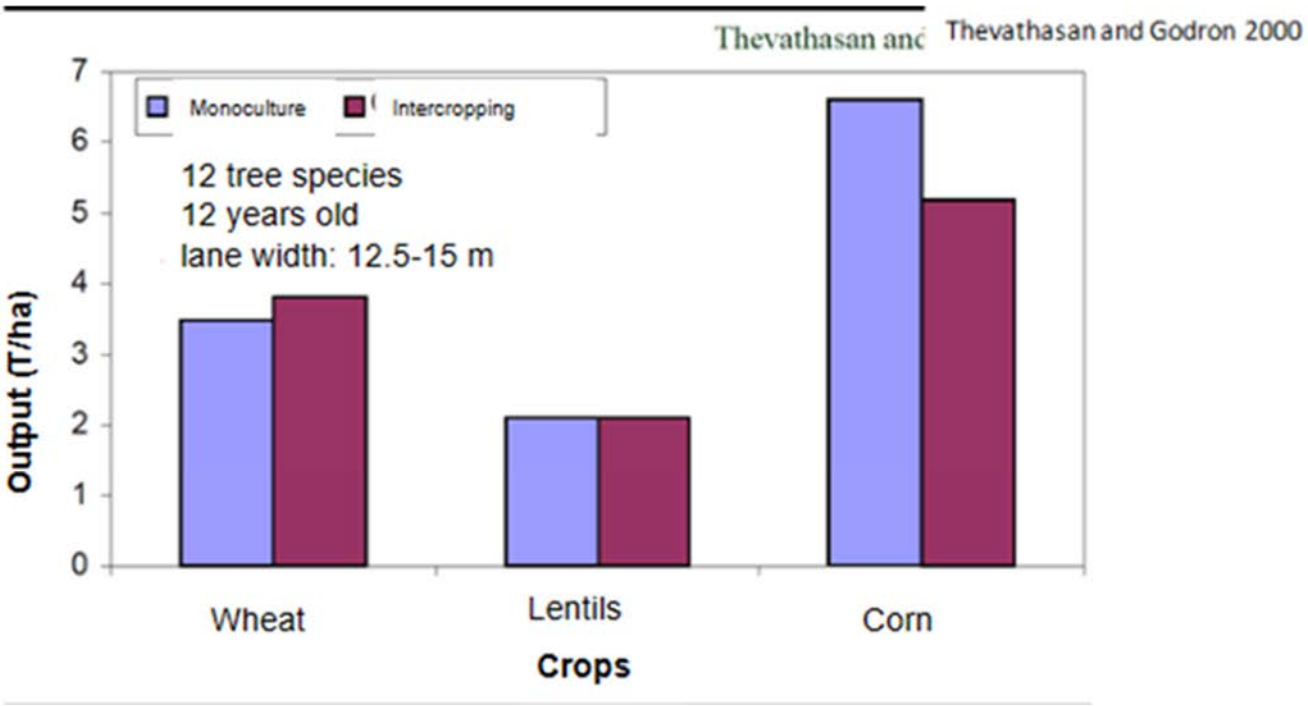
ELTIC PIG AND CHESTNUT

MAIZE WITH WALNUT

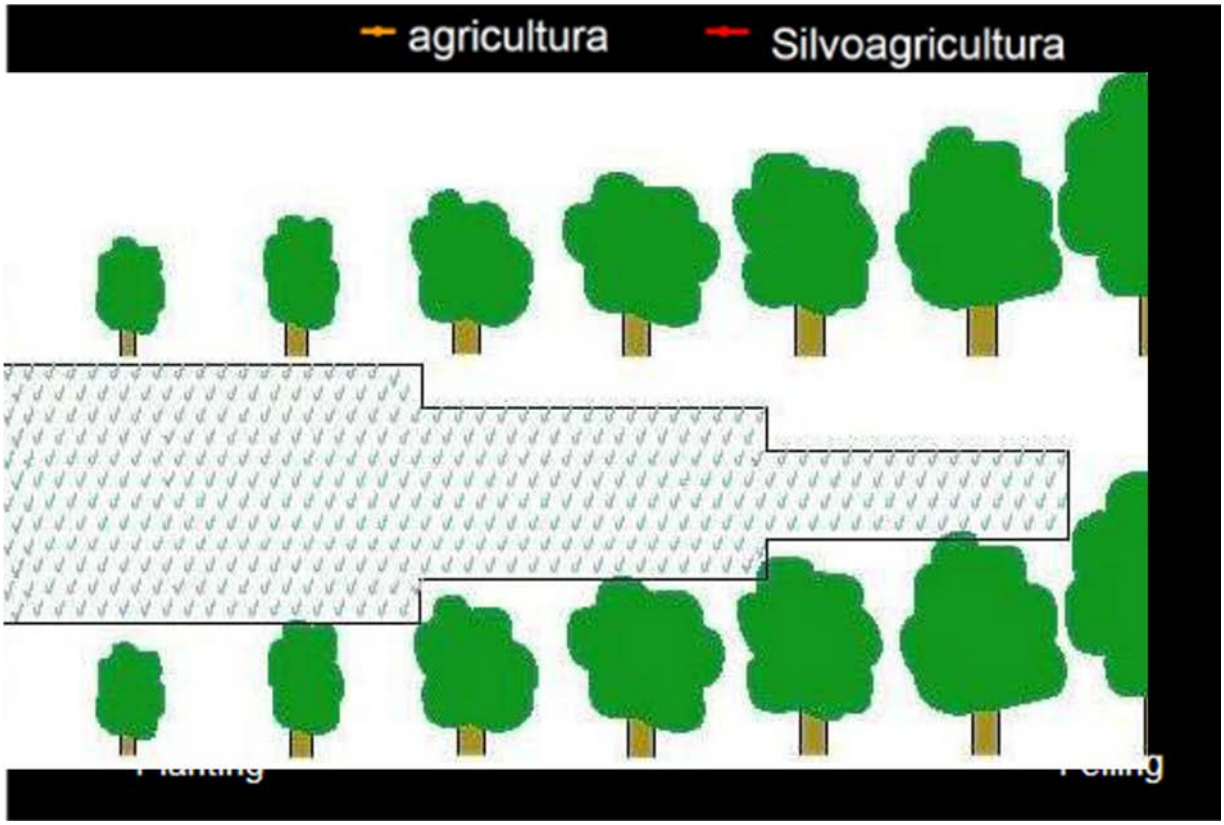
TREES GROW MORE (FRAMING, FERTILISATION, WATERING...)



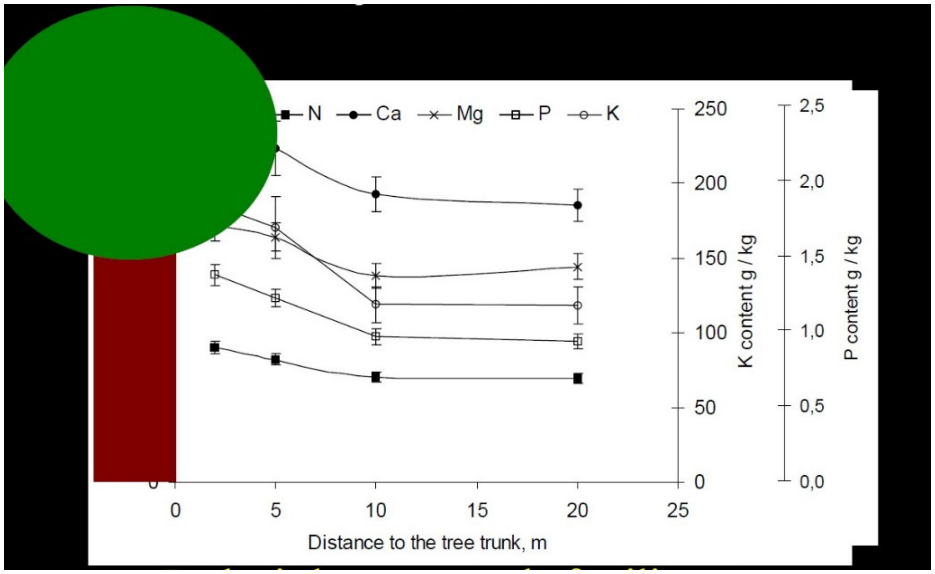
CROP YIELD (WINDBREAKS, ROOTS AT DIFFERENT LEVELS, SHADE...)



CROP YIELDS DECREASE WITH THE AGE OF THE TREES.



TREES IMPROVE SOIL FERTILITY.



FERTILISER INPUTS ARE REDUCED

MICROCLIMA

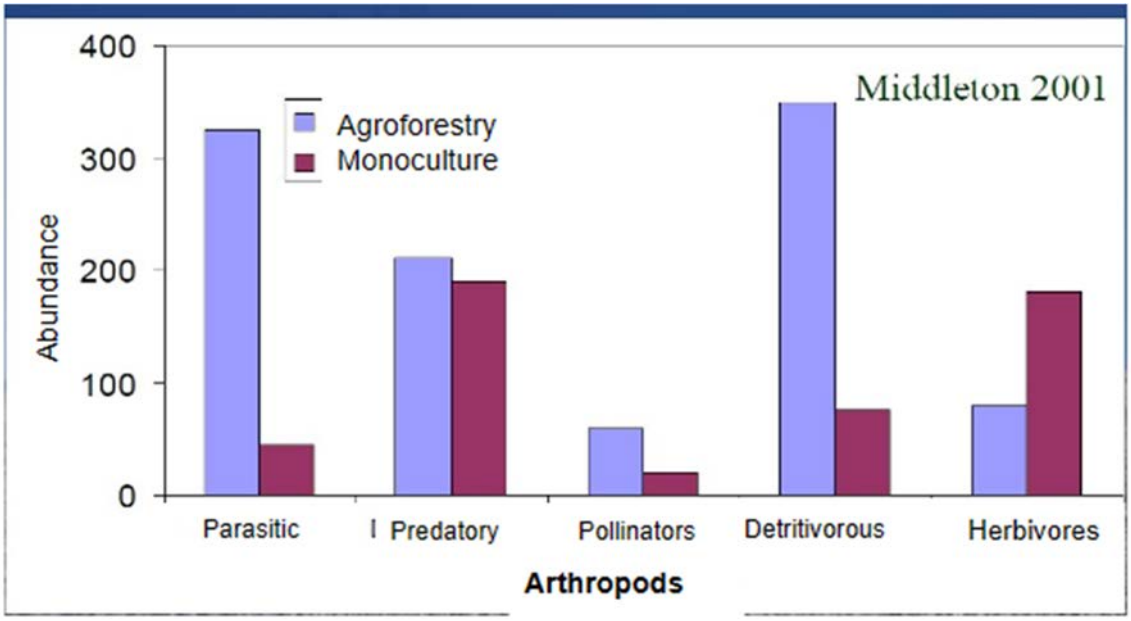
MICRO-CLIMATE AND ANIMAL WELFARE

5.- BIODIVERSITY

Agroforestry systems increase biodiversity on different levels:

- Microclimates: humidity, light, and shade
- Fertility: feces, falling leaves
- Shepherding
- Fields used for grazing present a greater diversity of flora and fauna than reaped fields

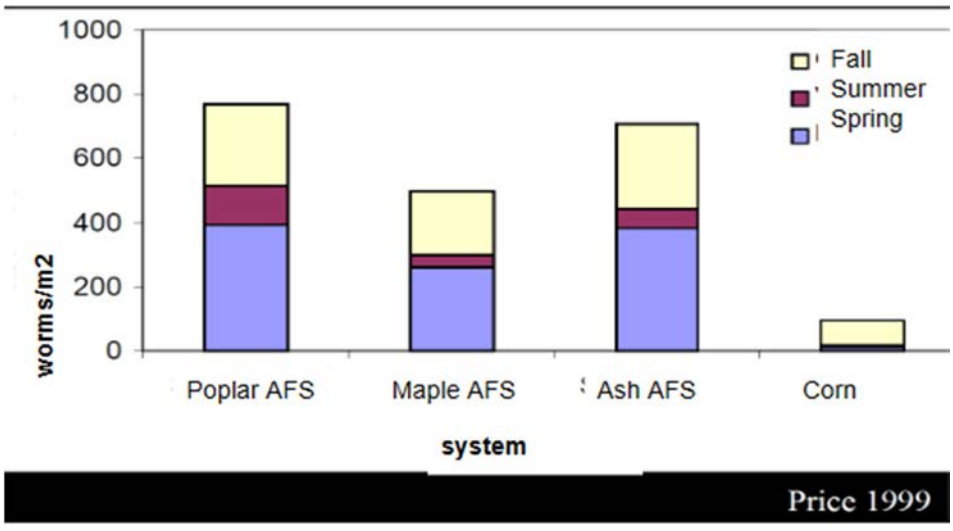
BIODIVERSITY



6.- CARBON SEQUESTRATION & FIXATION

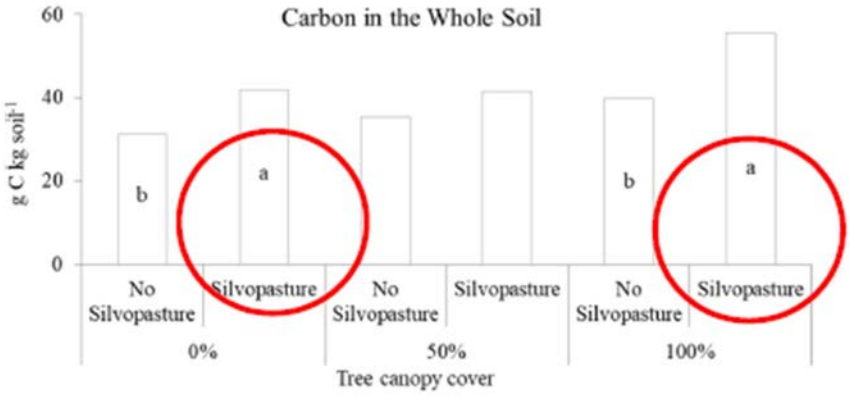
→ Carbon Fixation has been evaluated at:
- 1T/ha/year for a pasture without trees
- 2.7T/ha/year for an Agroforestry plot (100 poplars/ha) *GORDON et al 2004*

→ Deep carbon injection (root recycle) 1.5-3 times greater than biomass and greater continuity



Number of worms

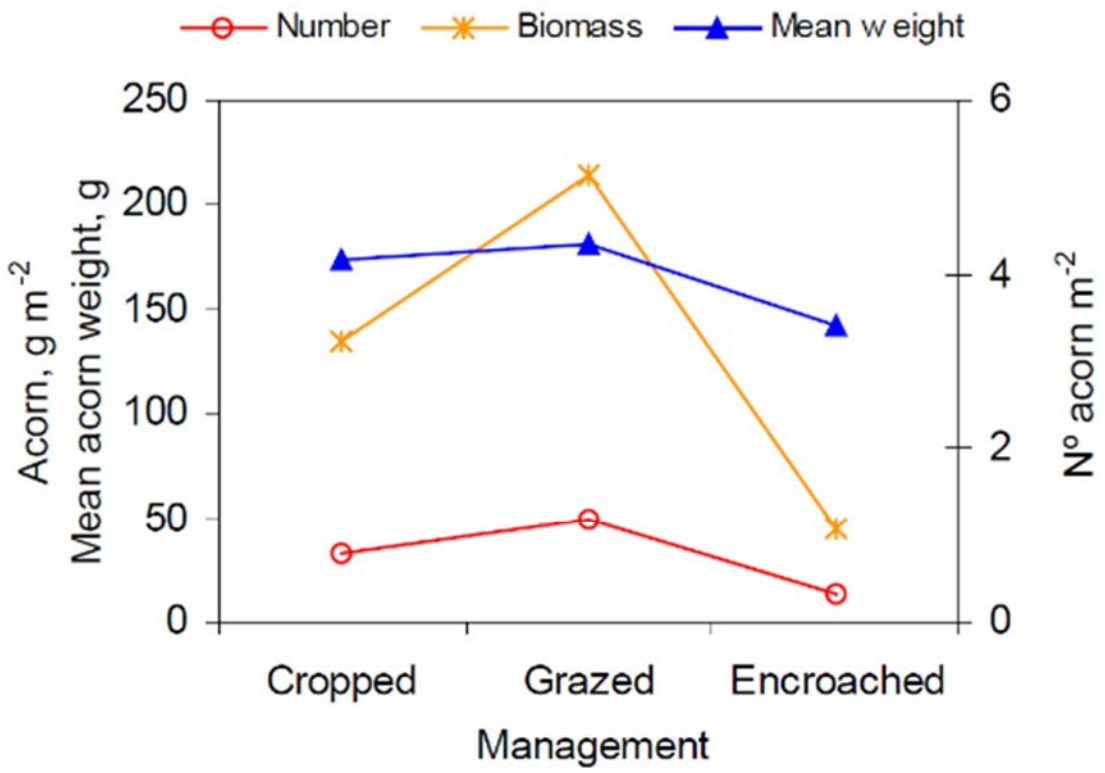
Carbon sequestration



-Silvopasture increased carbon storage in the soil mainly due to grazing's effect on incorporating organic material into the soil.

7.- SILVOPASTURE SYSTEMS:

Tree production. Density effect

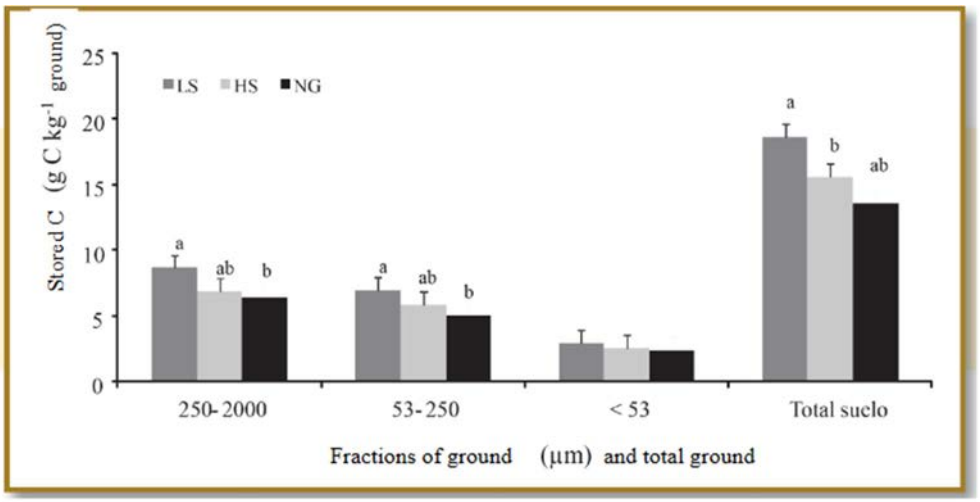


The "Dehesa" system allows a significantly higher production of fruits (acorns).

BIODIVERSITY OF THE DEHESA IN SPAIN

→ Over 3000 plant species

→ Over 400 vertebrates
→ A medium level of endemic species: 2/100 ha
→ Diversity in pastures is the highest in Europe
→ Intimate mix of various types of different habitat: forests, meadows, thickets, and even crops



-Silvopasture increased carbon storage in the soil mainly due to grazing's effect on incorporating organic material into the soil.

LS low load, HS high load, NG no grazing (tilling of soil in lanes)
1m depth, 2 years after introduction of livestock and no tillage of alleys except in the control.
Silvopasture increased soil carbon storage mainly due to the effect of grazing on soil organic matter incorporation.

8.- EUROPEAN PROJECTS: FRAMEWORK ABOUT RURAL EXTENSION RESEARCH

→ EUREKA, EURAKNOS, EIP-AGRI

EIP-AGRI Projects: Connecting thematic networks as knowledge reservoirs: towards a European agricultural knowledge innovation open source system

EURAKNOS 2019-2020

- Coordinator: University of Ghent.
- Main USC Researcher: María Rosa Mosquera Losada
- 16 members from 11 countries:
- Ghent University, Belgium
- ILVO, Belgium
- Proefstation Voor de Groenteteelt, Belgium
- Royal Agricultural University, United Kingdom
- Agricultural University of Athens, Greece
- Universidad de Santiago de Compostela, Spain
- Gruenland Zentrum Niedersachsen/Bremen, Germany
- Biosense Institute, Serbia

- AKI, Hungary
- IFA, United Kingdom
- Université d'Aarhus, Denmark
- Hungarian Chamber of Agriculture, Hungary
- Agricultural Research Centre, Estonia
- IFOAM EU, Sweden

We lead the work package of evaluation of publications, the transfer, communication, and promotion of the Agrarian Sector's implication in research.

European Multiactor Projects: European Knowledge repository for best agricultural practices

EUREKA 2020-2021

Main USC researcher: María Rosa Mosquera Losada

Countries: Belgium, France, UK, Greece, Hungary, Estonia, Italy, Romania, Holand, Lithuania, Slovenia, Denmark, Spain

AFINET

Agroforestry Innovation Networks, leadered by the USC (María Rosa Mosquera Losada)

→ Promote the exchange of information and knowledge transfer in the agroforestry field
→ 9 European countries: Spain, France, UK, Finland, Italy, Portugal, Belgium, Poland, and Hungary
→ Working groups called Regional Agroforestry Innovation Networks (RAINs) made up of different involved agents: farmers, ranchers, organizations of producers and communal woodlands, advising entities, policy designers, small businesses, and researchers
→ 86 innovations related to Agroforestry Systems:
  - 61 Technical
  - 16 Economic
  - 6 Communication and outreach
  - 3 Policy and Administration

AFINET
AGROFORESTRY INNOVATION NETWORKS

MOITAS GRACIAS

THANK YOU VERY MUCH

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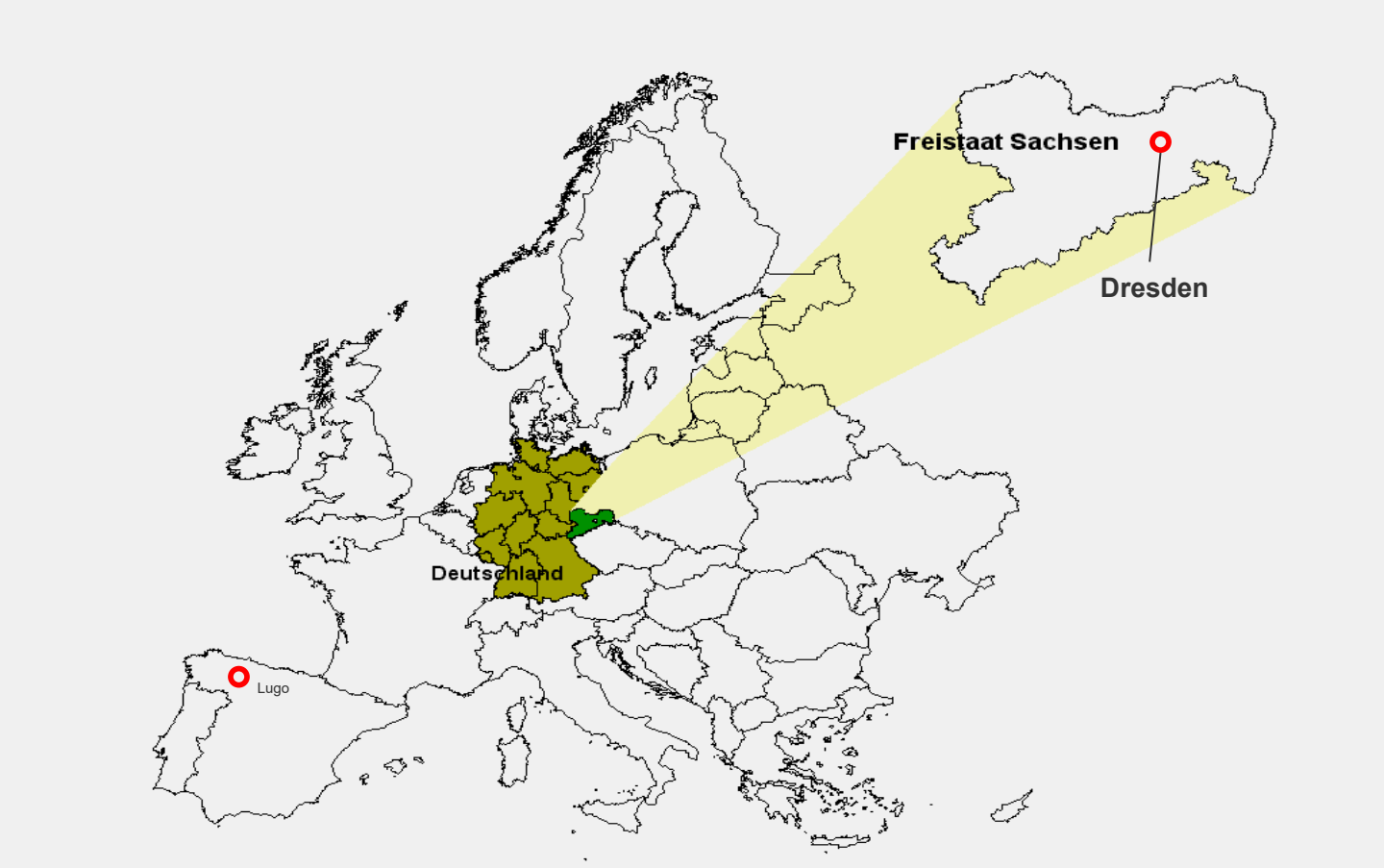
Freistaat Sachsen Federal Estate of Saxony Estado Federal de Sajonia …

62. IALB-EUFRAS-SEASN Arbeitstagung 2023, Dresden/Sachsen

Lage Location Ubicacion




Sachsen
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Elbe
Mulde
Schwarze Elster
Niederlausitz
Halle
Delitzsch
Senftenberg
Spree
Weißwasser
Hoyerswerda
Merseburg
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Meißen
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Weißenfels
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Liberec
THÜRINGEN
Glauchau
Česká Lípa
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Ústí nad Labem
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Litoměřice
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Fichtelberg
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Ohře
TSCHECHISCHE REPUBLIK
Hof
Labe
Sokolov
Karlovy Vary
Kladno
Praha
BAYERN

Status/status/estado	Bundesland in Deutschland Federal State in Germany (east) Estado Federal en Alemania, en el este
Gründung/Foundation/Estatuto	1918/1990 (Wiedergründung)
Haupstadt/capital/capital	Dresden (fundado 1206)
Einwohner/inhabitants/poblacion	4,1 Mio. (2020)
Anzahl/number/numero	220/km²
Sprachen/languages/idiomas	Deutsch, Sorbisch, "Sächsisch" German, Sorbian, "Saxonian" Aleman, Sorabo, "Sajonio"

Fläche/area/superficie — 18.450 km²

Niederschlag/precipitation — 490 – 1.200 mm ap.
710 mm

Temperatur im Mittel/temperature approx./temperatura aprox. — 8 °C

Landstraße (wichtige)/road (important)/camino rural (importante) — **Via Regia**

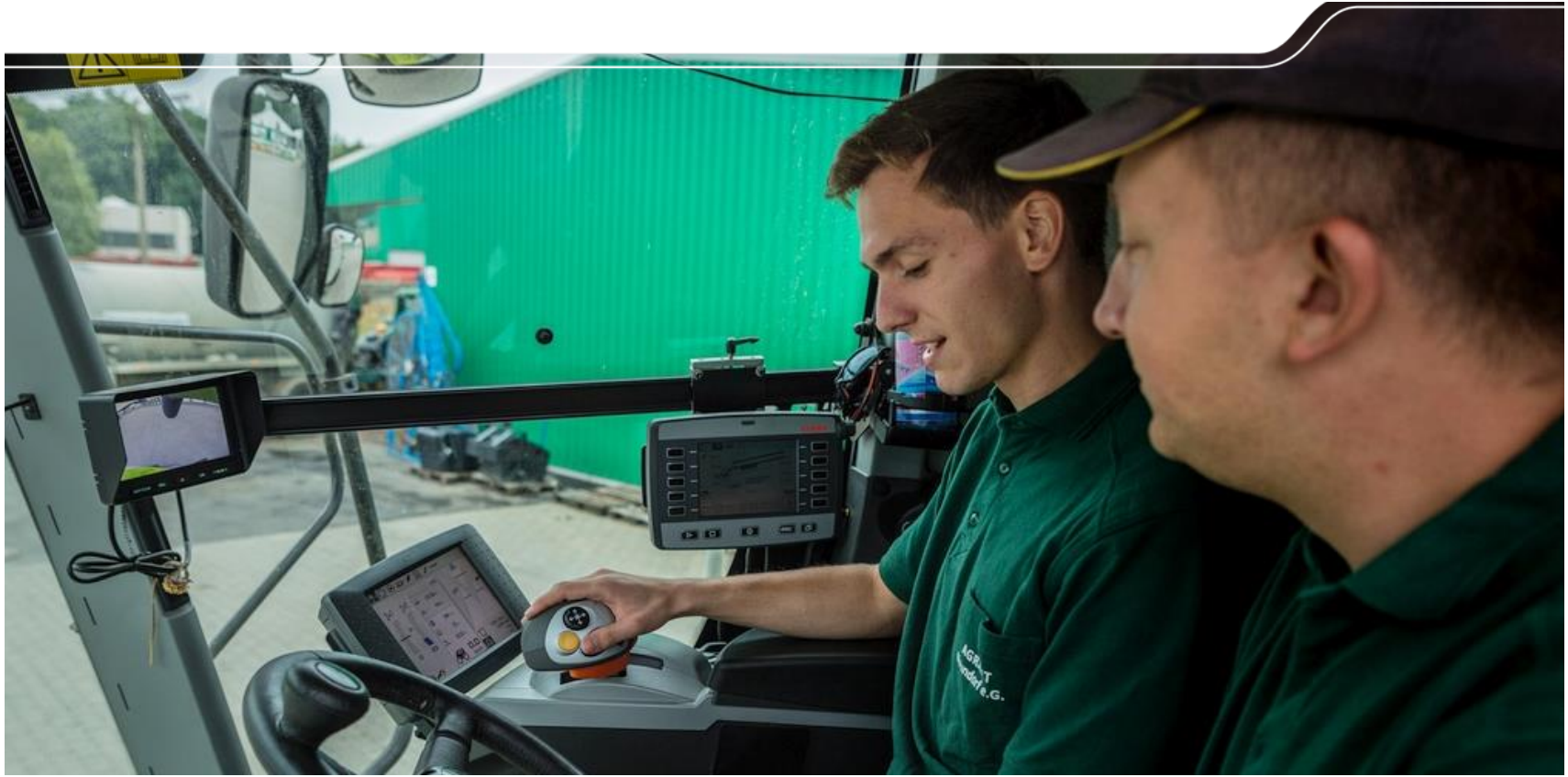
… auf dem gleichen Weg

… on the same path

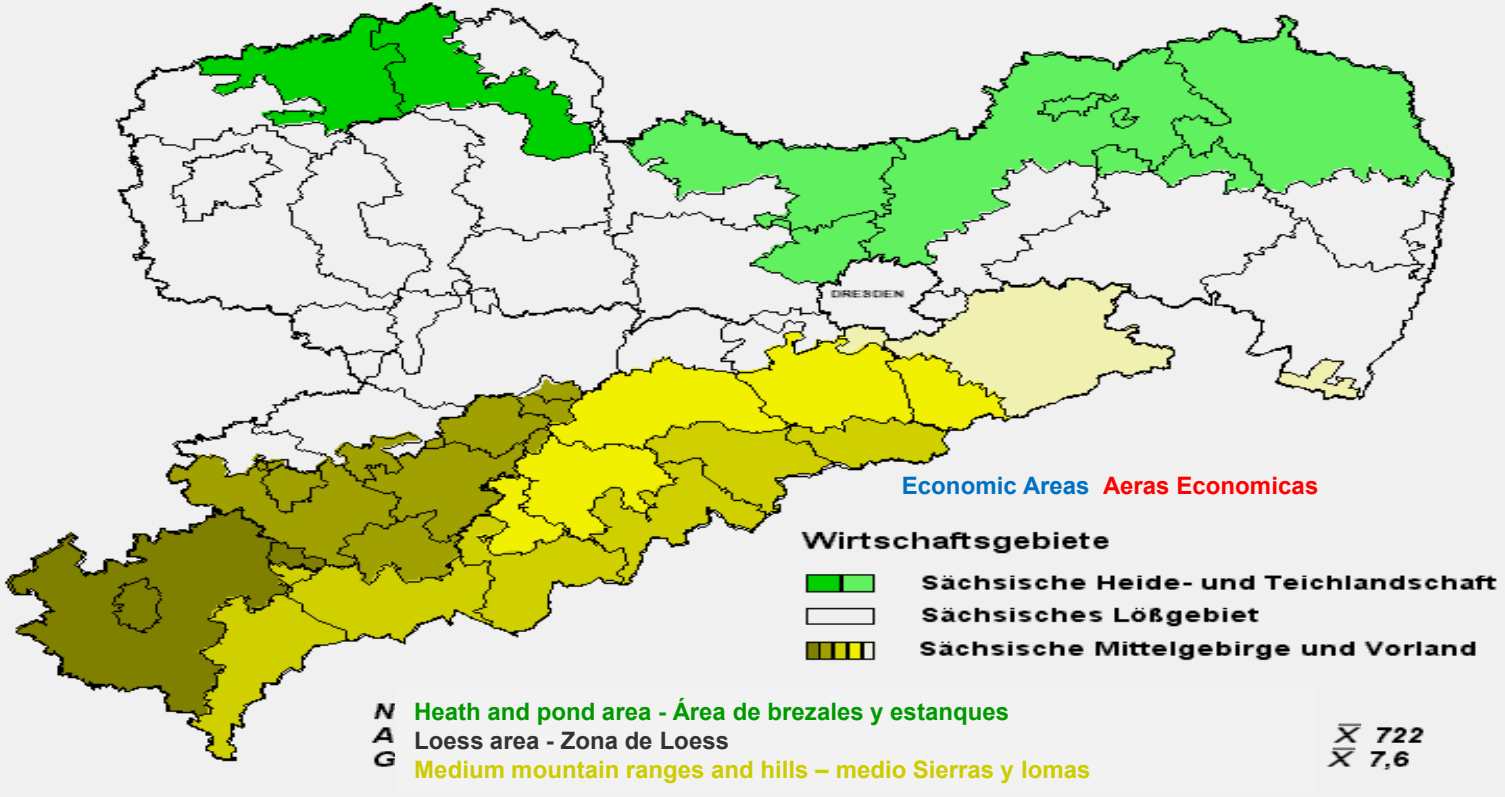
… de la misma manera

Quelle1: Von X-Weinzar - Selbst fotografiert, CC BY-SA 2.5, https://commons.wikimedia.org/w/index.php?curid=4529481

Landwirtschaft… Agriculture… Agricultura…



Wirtschaftsgebiete / Standortbedingungen
Economic Areas / Site Conditions
Áreas Económicas / Condiciones del Sitio



Landesamt für Umwelt, Landwirtschaft und Geologie
Saxon State Office for Environment, Agriculture and Geology
Officina del Estado Federal de Sajonia para Medio Ambiente, Agricultura y Geologia

www.lfulg.sachsen.de

Täglich für ein gutes Leben.

… Aufgaben Tasks Tareas of our Office de la officina

Politikunterstützung
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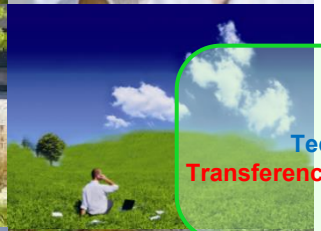
Apoyo a las políticas

Hoheitsvollzug
Enforcement of the law
Aplicación de la ley

Zukunftsthemen
future topics
Tareas futuras

Angewandte Forschung
Applied Research
investigación aplicada

Bildung / Beratung
Education / advising
Educacion / Asesoramiento

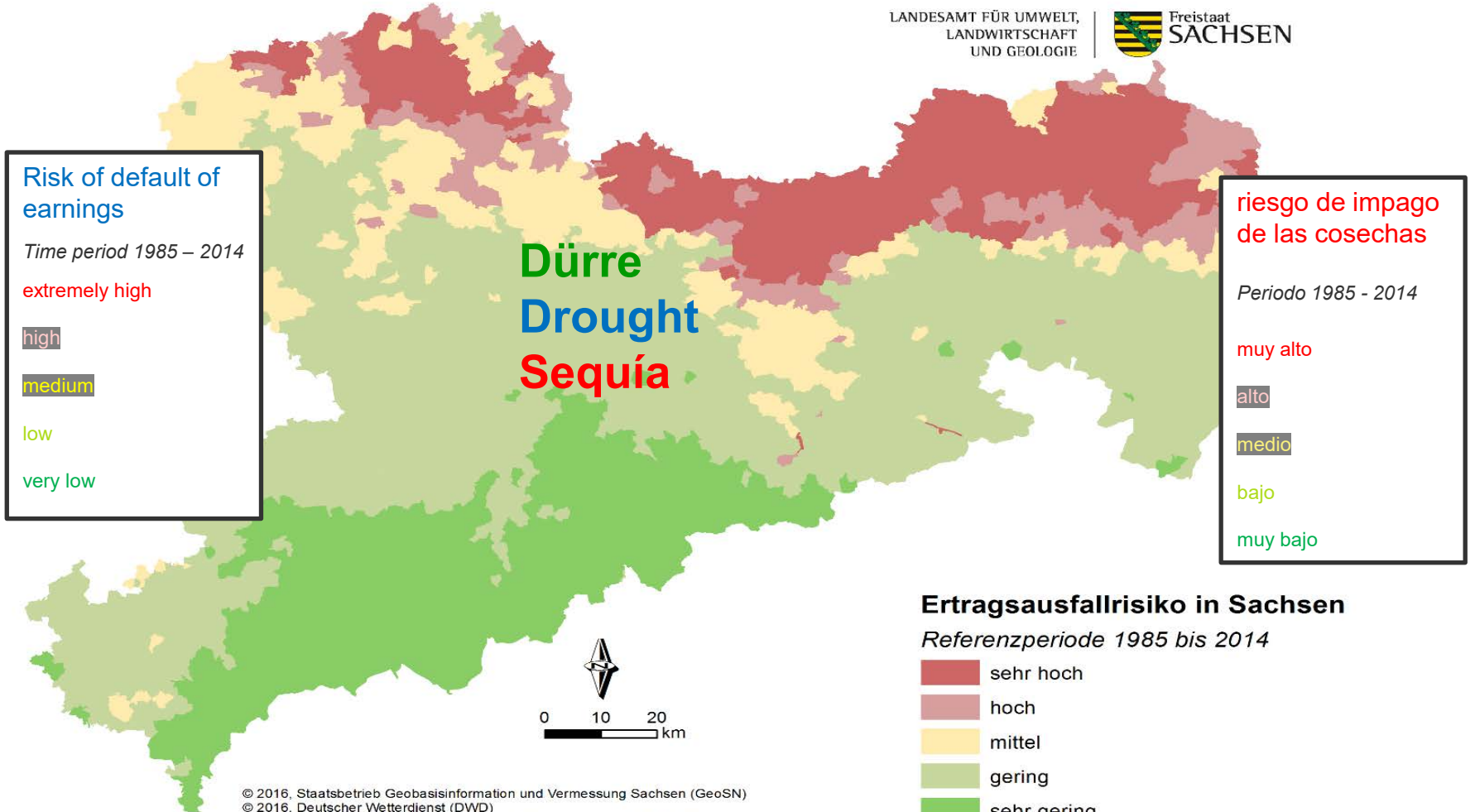


Technologie- & Wissenstransfer
Technology and knowledge transfer
Transferencia de tecnología y conocimientos

Förderung
Supporting
Promoción

Umweltüberwachung
Environmental monitoring
Vigilancia ambiental

Herausforderungen für die Beratung Challenges for Advising Desafíos para el asesoramiento



… Beratungsinitiative advice initiative consultoria iniciativa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IALB. Tagung / Meeting / Conferencia 2023

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62. Conferencia de trabajo

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62. Congreso IALB Tagung

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…Thema topic tema:

**Die Rolle von Bildung und Beratung im Transformationsprozess der Landwirtschaft –
im Kontext von Klimawandel, Ernährungssicherung und gesellschaftlichen Anforderungen**

**The role of education and counselling in the transformation process of the Agriculture –
in the context of climate change, ensuring nutrition and social requirements**

**El papel de la educación y el asesoramiento en el proceso de transformación de la Agricultura –
en el contexto del cambio climático, la seguridad alimentaria y la seguridad social requisitos**

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… Ziele objektives metas:

- **Entwicklung und Leistungsstand der sächs. Agrarwirtschaft** und verbundener Sektoren vorstellen (25 Jahre nach letzter Tagung)
  - **Development and level of performance of the agriculture in Saxony and related sectors** (25 years after the last meeting)
  - **Desarrollo y nivel de rendimiento de la Agricultura en el federal estado de Sajonia y sectores conexos** (25 años después de la última reunión)

- **Betriebliche Anpassungsstrategien** bzgl. wirtschaftlicher, ökologischer, klimatischer und gesellschaftlicher Anforderungen kennenlernen
  - **Operational adaptation strategies with regard to economic, ecological, climatic and get to know social requirements**
  - **Estrategias operativas de adaptación con respecto a los aspectos económicos, ecológicos y climáticos y conocer los requisitos sociales**

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… Ziele objektives metas:

- **Rolle von Bildung und Beratung in Veränderungsprozessen** (in der Praxis) diskutieren
  → Konzepte zur Gestaltung/Umsetzung komplexen Wissenstransfers (AKIS)

- **Discuss the role of education and counselling in change processes (in practice)**
  → Concepts for the design/implementation of complex knowledge transfer (AKIS)

- **Discutir el papel de la educación y el asesoramiento en los procesos de cambio** (en la práctica)
  → Conceptos para el diseño/implementación de transferencia de conocimiento complejo (AKIS)

- **Vielfalt und Besonderheiten Regionen** kennenlernen
- **Get to know the diversity and special features of regions**
- **Conozca la diversidad y las características especiales de las regiones**

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… Inhalte Contents Contenidos

- Regionale **Wertschöpfungskreisläufe**
- **Tierwohl- und umweltgerechte** Produktionsverfahren
- **Klima- und Ressourcenschutz**
- **Betriebliche Resilienz**
- Regional value creation cycles
- Animal welfare and environmentally friendly production processes
- Climate and resource protection
- Operational resilience
- Ciclos regionales de creación de valor
- Bienestar animal y procesos de producción respetuosos con el medio ambiente
- Protección del clima y los recursos
- Resiliencia operativa

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Freistaat SACHSEN

… Inhalte Contents Contenidos

- **Unternehmensführung** / Personalmanagement
- Einsatz **digitale**r Instrumente in **Betriebsführung, Bildung und Beratung**
- **Ernährungssicherung**
- Einkommenskombinationen / **Hauswirtschaftliche Dienstleistungen**
  - Corporate Management / Human Resources Management
  - Use of digital instruments in business management, education and consulting
  - Ensuring nutrition
  - Income combinations / domestic services
  - Gestión Corporativa / Gestión de Recursos Humanos
  - Uso de instrumentos digitales en gestión empresarial, educación y consultoría
  - Seguridad alimentaria
  - Combinaciones de ingresos / servicios domésticos

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… Inhalte Contents Contenidos

- Ganzheitliche **Entwicklung des Ländlichen Raums**
- Struktur und Umsetzung des **Verbundsystems „Agrarwissen“**
- **Qualifizierung** von Beratungs- und Bildungsexperten
- **Interdisziplinäre Zusammenarbeit** / Vernetzung
  - Holistic rural development
  - Structure and implementation of the network system "Agricultural Knowledge"
  - Qualification of consulting and education experts
  - Interdisciplinary cooperation / networking
  - Desarrollo rural holístico
  - Estructura e implementación del sistema de red "Conocimiento Agrícola"
  - Cualificación de expertos en consultoría y educación
  - Cooperación interdisciplinaria / networking

… Programm / Program / Programa

LANDESAMT FÜR UMWELT, LANDWIRTSCHAFT UND GEOLOGIE | Freistaat SACHSEN

- **Sonntag, 10. September 2023 / Sunday / Domingo:**
  - Anreise, Anmeldung / Arrival, Registration / Viaje, Registro
  - Stadtführung / Sightseeing Tour in Dresden / Recorrido en el ciudad Dresde
  - Begrüßung / Greeting / Saludo

- **Montag, 11. September 2023 / Monday / Lunes** (Begleitpersonenprogramm)
  - Eröffnung / Opening / Abertura
  - Fachvorträge im Plenum/Diskussion / Lectures in plenary/discussion / Conferencias en sesión plenaria/debate
  - Workshops / Workshops / Talleres
  - Gesellschaftsabend / Festiva evening / Noche vestiva

- **Dienstag, 12. September 2023 / Tuesday / Martes**
  - Fachexkursionen (8 Routen, Region: Mittel- und Ostsachsen) / Special Excursions / Excursiones speciales

LANDESAMT FÜR UMWELT, LANDWIRTSCHAFT UND GEOLOGIE | Freistaat SACHSEN

… Programm / Program / Programa

- **Mittwoch, 13. September 2023 / Wednesday / Miercoles**
  - Auswertung Workshops / Evaluation of workshops / Evaluación de talleres
  - Poster-Präsentation / Poster Presentation / Presentación de los pósters
  - Abschlussvortrag im Plenum / Closing speech in plenary session / Discurso de clausura en sesión plenaria
  - Tagungsabschluss / Conclusion of the Congress / Conclusión de la conferencia
  - IALB-EUFRAS-SEASN Mitgliederversammlung / Member Meeting / Sesion de Miembros de IALB / EUFRAS / SEASN

- **Donnerstag, 14. September 2023 / Thursday / Jueves**
  - Ergänzungsexkursionen / additional Excursions / excursiones suplementarias

… **Anschlussurlaub in Sachsen / Holidays in Saxony / Vacaciones en Sajonia**


Auf nach Dresden…
… die IALB und Partner ebnen Wege
Start to Dresden...
... the IALB and partners pave the way
Vamos a Dresde...
... la IALB y sus socios allanan el camino


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Bienvenidos a Dresde 2023 !

CONCLUSIONS FROM THE 61ST IALB, 11TH EUFRAS, 8TH SEASN INTERNATIONAL CONGRESS IN GALICIA, 2022

The path of knowledge and innovation transfer through extension to sustainable rural development

University of Santiago de Compostela
Lugo Campus
21-25 June 2022

MATERIAL PRODUCED IN THE WORKSHOP WORKING GROUPS

SUMMARY AND CONCLUSIONS OF WORKSHOPS CARRIED OUT AT THE CONGRESS

INDEX

1. WORKSHOP 01

How do I establish innovation consulting in my region?
Strategy development for advisors based on the example of InnoTour Bavaria

Languages: German/ Spanish

Coordinators:

Thomas Mirsch
Agrarian Training Association (vlf Bayern),
Advisor Training
Germany

Pablo Asensio
Staatliche Führungsakademie für Ernährung,
Landwirtschaft und Forsten (FüAk)
Germany

Participants: 15

	Apelidos	Nome	Institucion	Pais
1	Arbeloa Ibero	Maria	Departamento de Desarrollo Rural y Medio Ambiente. Gobierno de Navarra	España
2	Asensio	Nelli	Verband der bayerischen Lehr- und Beratungskräfte - Ernährung, Ländlicher Raum, Agrarwirtschaft e.V.	Deutschland
3	Asensio	Pablo	Staatliche Führungsakademie für Ernährung, Landwirtschaft und Forsten	Deutschland
4	Denis	Ugo		
5	Dr. Lofner-Meir	Viktoria	Bayerische Landesanstalt für Landwirtschaft	Deutschland
6	Eisenhut	Ekkehard	LEADER-Koordinator Amt für Ernährung, Landwirtschaft und Forsten Fürth-Uffenheim	Deutschland
7	Huberty	Martine	Ministry of Agriculture, Viticulture and Rural Development	Luxembourg
8	Hunger	Franz	Landwirtschaftskammer Oberösterreich	Österreich
9	Malumbres Montorio	Angel	INTIA. Navarra	España
10	Martínez Barral	Juan Manuel	Consellería do Medio Rural	España
11	Mirsch	Thomas	vlf Bayern	Deutschland
12	Oliveros Yanes	Antonio	Consellería do Medio Rural. Xunta de Galicia	España
13	Parz	Friederike	Landwirtschaftskammer Kärnten	Österreich
14	Pérez Pacios	Mª Julia	Consellería do Medio Rural	España
15	Stöckli	Anton	Bundesamt für Landwirtschaft	Schweiz

In order to respond to the current and future demands in agriculture, extension services, also prompted by the new CAP, are increasingly relying on innovation consulting, networking, the multi-actor principle, transdisciplinarity, knowledge exchange and co-creation in AKIS. These are fine-sounding terms. But what does this mean in concrete terms for the role of the advisors and their mission? How can an innovation consultancy be successfully established? Do the counsellors, as professionals for change processes, create this change that affects them?

The idea of the InnoTour was born in Bavaria out of the realisation of the need for stronger networking and in order to bring the multi-actor approach into focus, which is introduced here as an idea and starting point for this workshop. In Bavaria, it was possible to draw on experiences from the EU projects AgriSpin (cross-visit principle of learning from each other) and i2connect.

As an introduction, the example of InnoTour Bavaria is presented and terms of innovation consulting are clarified. Afterwards, the workshop participants will work in groups to develop strategies for the introduction and establishment of innovation consulting concepts in their respective regions.

First part of the session:

-The session begins with a presentation on the workshop and a personal introduction by all the participants.

-Description of the pilot project InnoTour Bayern and brief presentation of the seasons carried out. Explanation of the approach and centralized operation at station 2 "Energy autarchy on farms"

-Explication of the Innovation Timeline and working group functions as well as the use of portfolios and different phases of development.

Coffee Break

Second Part of Session

-Operation of communication. Importance of multidisciplines, looking for the exchange of knowledge at ¨participants' eyelevel¨: not top-down communication, nor bottom-up.

-Principle of multi-stakeholders and interconnection to lead to "co-creation". Working in groups seeks to reach an applicable innovation, that is, transferable from paper to reality.

-Formation of small groups of 2/3 people > How is the exchange of knowledge in the areas to which we belong?

-Brainstorming

-Conclusions: What have I learned today? What is the main idea that I will take home?

Impressionen WS 1

2. WORKSHOP 02

Motivation, competence and success in biodiversity extension service – how can they be achieved?

Languages: German/Spanish

Coordinator:

Dr. Ernst Berg
State Agency of Agriculture, Food and Rural Environment. LEL.
Director General of LEL

Presenter:

Dr. Isabelle Heinisch
Rural Settlements Baden-Württemberg, S.A.
Germany
GBB Project Manager
(Communication and Training)

Number of participants: 19

	Apelidos	Nome	Institucion	Pais
1	Berg	Ernst	Landesanstalt für Landwirtschaft, Ernährung und Ländlichen Raum (LEL)	Deutschland
2	Besada Alvarez	MARCOS	ALMOGA, S.C.G.	España
3	Couto Lage	Mª José	AGACAL	España
4	Darmann	Evelyn	Landwirtschaftskammer Tirol_LFI Tirol	Österreich
5	Fernandez	Bernadette	Agaca	España
6	FERNANDEZ REY	CARLOS	AGRO DE BAZAN S.A.	España
7	GARCIA FREITAS	SHEILA	AGACAL- CFEA PEDRO MURIAS	España
8	GONZÁLEZ POYÁN	ESTEFANÍA	AGACA	España
9	Gräßler	Peter	Landwirtschaftskammer Nordrhein-Westfalen	Deutschland
10	Heinisch	Isabelle	Landsiedlung Baden-Württemberg GmbH/LEL Schwäebisch Gmünd	Deutschland
11	Mayer	Susanne	Regierungspräsidium Karlsruhe	Deutschland
12	Nicolás Velado	María del Camino	AGACAL	España
13	Oehme	Robby	Sächsisches Landesamt für Umwelt, Landwirtschaft und Geologie	Deutschland
14	Paschold	Lara Elisa Sofie	Hochschule für Agrar- und Umweltpädagogik Wien	Austria
15	Rodrigo Solanas	Mercedes	Departamento de Desarrollo Rural y Medio Ambiente	España
16	Simón	Alba	AGACA	España
17	Stockinger	Barbara	LK Oberösterreich	Österreich
18	Vázquez Miramontes	Diego	AGACA	España
19	Zurbruegg	Corinne	AGRIDEA	Schweiz

The conservation of biodiversity is a necessary and urgent global challenge that is backed by a massive social expectation. Agriculture has a decisive role to play here due to its proportionately significant land use. In order to support farmers in the implementation of biodiversity-enhancing measures, various approaches already exist in practice, ranging from financial support to advisory services and awareness-raising. Nevertheless, the implementation of measures to counteract species extinction is currently progressing only slowly. It is therefore of interest to find out which obstacles need to be overcome and how support for agriculture in extension and education can be optimised.

Workshop Development:

In the workshop, the topic was first introduced by means of two short presentations. For this purpose, the system of on-farm biodiversity advice for farmers and the measures taken so far to improve the establishment of biodiversity advice in Baden-Württemberg (Germany) were presented.

Afterwards, an exchange of experiences with the participants on different aspects of biodiversity extension and knowledge transfer were encouraged in four small groups. The aim was to compile successful measures in the implementation of biodiversity advisory services in European countries.

The topics of the small group work:

1. How can farmers be motivated for the topic of biodiversity and the use of advice?
2. Where and how can competent biodiversity extension workers be found?
3. How can a suitable qualification of extension workers be achieved?
4. What are the success factors for effective biodiversity advisory services?

Later, in a group discussion, participants exchanged ideas and experiences about different aspects of biodiversity advising, and grouped their experiences as seen in the image below.

Conclusions:

Q1. How can farmers be motivated to take interest and seek advising about biodiversity matters?

- Information, information, information

- Continuous training, such as the continuous training of (future) farmers

-An advisory service adapted to the specific regions of each country

-Promoting the profile of individual biodiversity advisors

-(Financial) Incentives for using advisory services

-Establishing an operatational demonstration network

Q2. In addition to the measures presented in project GBB, are there other public efficiency measures/methods to improve advisory service in biodiversity and to announce its existence?

- Creation of an international network of advisors which allows, among other things, visiting diverse farming operations

-Creation of a transnational knowledge platform

Q3. How can we find advisors competent in biodiversity?

- Since advisors must have a solid and ample profile of professional qualifications and methodology, it's necessary to offer adequate training and perfection, ideally through a certified and recognized transnational offer.

Conclusion:

In Europe we are only at the beginning of the transformation of agriculture towards greater biodiversity, whose success will be determined mainly by coordinated and transnational education, training, and advising as well as the corresponding transfer of knowledge.

3. WORKSHOP 03

Tension in agriculture - shaping the future with solution-focused conflict management

Languages: German/ Spanish/ English

Coordinators:

Dr. Daniela Gramelhofer
School of Agrarian and Environmental Pedagogy(HAUP)
Vienna, Austria

Dr. Beate Formowitz
Advisor Training Service. LLH
Hessen, Germany

Number of participants :16

Id	Apelidos	Nome	Institucion	Pais
1	Becker	Jürgen	Regierungspräsidium Gießen	Deutschland
2	Biberger	Sabine	Amt für Ernährung, Landwirtschaft und Forsten Ingolstadt-Pfaffenhofen	Deutschland
3	Deubzer	Monika	AELF Abensberg - Landshut	Deutschland
4	Dornauer	Katharina	Landwirtschaftskammer Tirol	Österreich
5	Formowitz	Beate	LLH Bildungsseminar Rauischholzhausen	Deutschland
6	Gramelhofer	Daniela	HAUP	Austria
7	Glöckle	Dorothee	Dorothee Glöckle	Austria
8	Huber	Monika	Landwirtschaftskammer Kärnten	Austria
9	Hunziker	Simone	AGRIDEA	Schweiz
10	Kiander	Essi	ProAgria	Finland
11	Ladinig	Elisabeth	Ländliches Fortbildungsinstitut (LFI Kärnten)	Österreich
12	Nyinaku	Felix Owusu	Giving Hour Foundation Ghana	Ghana
13	Šajn	Valentina	KGZS-Zavod LJ	Slovenija
14	Santamarta Benito	Amaia	Ovica	España
15	Sauter	Nora	Bundesamt für Landwirtschaft BLW	Schweiz
16	Zauner	Martin	Landwirtschaftskammer Niederösterreich	Österreich

Where people work together and different interests and needs collide, tensions and conflicts can arise. The system of a family farm is subject to additional challenges. Family farms are not only confronted with business management and legal challenges, in many cases there are emotional and social components that shape the working and living process. Due to this close connection between the workplace and private life, identification with the farm is usually extremely high, and family and farm cohesion are inseparable. This means that this system needs a special form of conflict management.

Family and business issues flow into each other, escalations usually arise from these overlaps. Impulses on what this means and how to deal with it in dialogue and conflict management were discussed and developed in this workshop.

Workshop Objectives:
- To recognise challenging framework conditions/circumstances in family farms
- To recognise the importance of role clarification/role clarity in daily interaction for conflict resolution
- To get to know mediative elements in conducting talks and conflict management

Procedure and methodology: Short theory inputs as well as practice and reflection units in individual and group settings.

Workshop Development:
With the participants, they discussed how to treat or handle these special circumstances in the conversation and conflict regulation. To to make the workshop as agile and active as possible and to achieve the best learning success, the coordinators gave only short theoretical inputs followed by breakout sessions for group work and time for reflection. Feisty remarks and explanations, humorous examples of the own context and well narrated put the group in a good working mood.

After a short fight about which of the trainers should start welcoming the participants, they started with a warm-up and self-reflection sequence. They asked the participants, at which point they sense an escalation of a conversation and what kind of conflict type there is. By placing ground anchors on the floor, the trainers introduced the five conflict-handling modes by Thomas-Kilmann - collaborating, competing, compromising, accommodating, and avoiding.

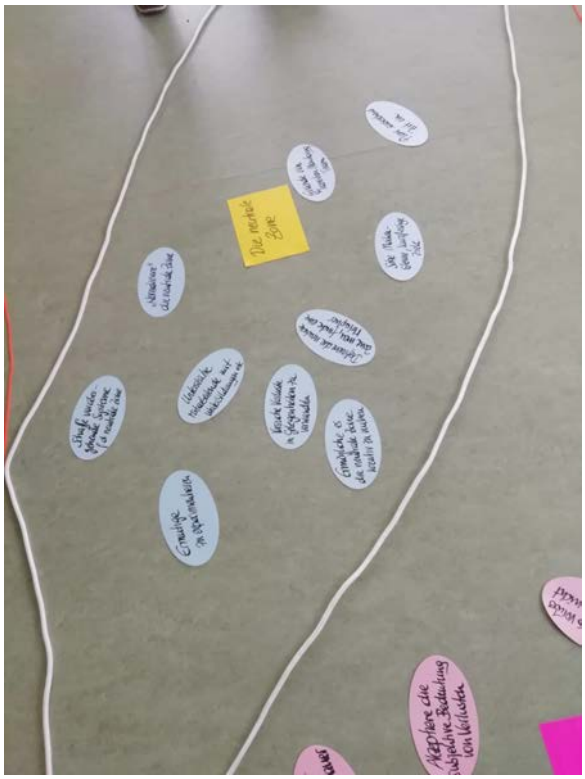
Participants were invited to step on that mode on which they tend to rely on more heavily than others and exchange their views on strengths and weaknesses of this mode with their neighbors.

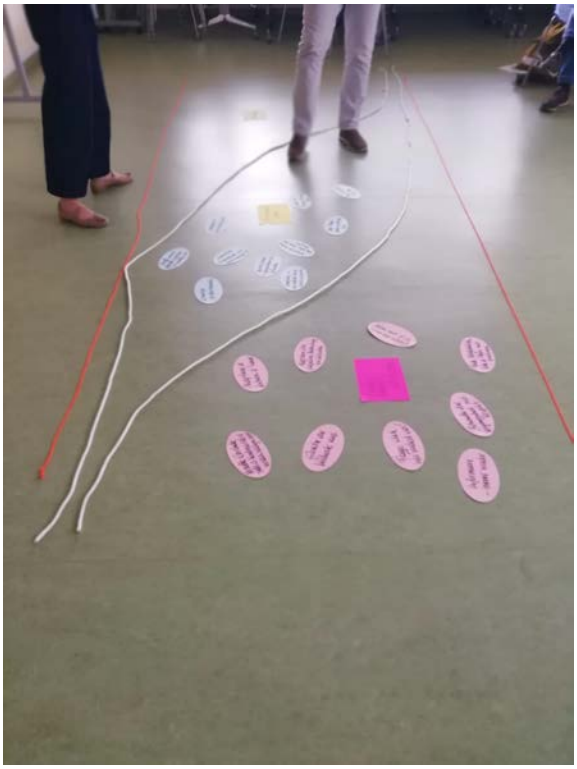
The traineres continued with delimitating “disagreement”, “conflict” and “crises” from each other and explaining, that the conflict itself is not the problem, only the way we handle it. With examples from their own life, they tried to make it easy for everyone to understand which processes in stressful situations will lead to changes in our perceptions and get us to specific behaviors, that most commonly heat up the conflict. To step even deeper in the dynamic of conflicts, they worked with Friedrich Glasl’s “model of conflict escalation”. The participants got pictures and explanations of the nine escalation stages to sort them in the right order. Afterwards they discussed the three levels “win-win”, “win-lose” and “lose-lose” and talked about possible techniques and limitations in an emotionally- or conflict-laden consultation process.
In a change process, we all go through different emotional phases and the “change curve” (developed by Kubler-Ross) is a very helpful method to understand the reactions to e.g. significant changes, which is a common topic in agricultural consultations. Human beings are different in the way they behave, how they connect to their fellow human beings, as well as what they feel inside and what they need to feel comfortable in interpersonal relationships. One model to understand human differences and their effects on communication and relationships is the Riemann-Thomann model (by Schulz von Thun). This model serves to get to know the own change behavior and of others, to realize the optimal use of my own behavior and recognize the change of others helpful resources to shape coming changes. Furthermore, it allows exploring the change profiles existing in a group or family and how to use these resources in the best possible way to reach the business and family goals. It gives also a hint, what different people need to cope with changes in their lives.

Our inner values are the deciding and unconscious driving force. They are the reason, why we may or may not take action and define our ethical frame within which we move or operate. Beliefs are strong convictions we live by. A belief or belief system is an absolute distinct feeling of assertiveness about the meaning of something evidenced by experiences in the past. Beliefs determine the importance we attribute to things or experiences. Because time was running out, the participants were invited to swap ideas: which values and beliefs might play a relevant role in

typical conflict situations they frequently face in their consultations.

The dolphin strategy dedicates five animals (carp, turtle, shark, owl, dolphin) to the five conflict handling modes by Thomas-Komann. To strengthen the main message they ended with a short stirring tale, which motivates the participants to think outside of the box, besides their usual thought and behavior patterns leading them to pursue new paths.





4. WORKSHOP 04

FAIRshare: How advisors can effectively use digital tools and services for supporting a more productive and sustainable agriculture.

Language: English

Coordinator:

Karlheinz Knickel
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Presenters:

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Patricia Fry
HAFL, Switzerland
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In the FAIRshare project, advisors and researchers from all over Europe exchange experiences on the design and use of **Digital Advisory Tools and Services** (DATS). In this highly interactive workshop, participants will share their experiences, the highlights, and the challenges they face in their daily use of digital tools. We identify and discuss good practices in DATS and their use, and hope to get new insights into the possibilities of advisory work with digital tools and services.

There is a large number of digital tools on the market, some of which are even available for free. But which are the right tools for you, how do you identify suitable tools and services for your everyday work as an advisor, and how can you profit more from using them? What experiences would you like to share and that might be helpful for others? The work in the FAIRshare project focuses exactly on these topics, and can point to new ways of incorporating digital tools in your work.

Procedure and Methodology:

Short presentation of the related project work and of the open access online repository of DATS; exchange of experiences and good practices in the use of DATS in subgroups with a World café format.

Sesión A: Que DATS estás usando? Que che gusta destes DATS? boas prácticas?

Sesión B: Tendencias sobre os DATs e o seu uso

Participants: 11

	Apelidos	Nome	Institucion	Pais
1	Bereir	Ahmed M.A.R	University of Gezira	Sudan
2	Berger	Elfriede	Hochschule für Agrar- und Umweltpädagogik	Österreich
3	Fry	Patricia	Berner Fachhochschule, HAFL	Schweiz
4	Häller	Bruno	Bern Unversity of Applied Sciences (BFH)	Switzerland
5	Huber	Karl-Heinz	LFI Kärnten	Österreich
6	Knickel	Karlheinz	Sustainability Strategies & Innovation / University of Helsinki	Austria
7	Naughton	Anita	Teagasc	Ireland
8	Raith	Elisabeth	Landwirtschaftskammer Steiermark	Österreich
9	Sande	Luis	Pagos de Brigante, S.L.	España
10	Sarke-Fedjajev	Linda	Latvian Rural Advisory and Training Centre Ltd.	Latvia
11	Stephen	Kerry	USC	España

Participants were divided into two groups.
In the first session they discussed: what DATs they are using, what they like about them, and good practices.
In the second session they discussed trends regarding DATs and their use.

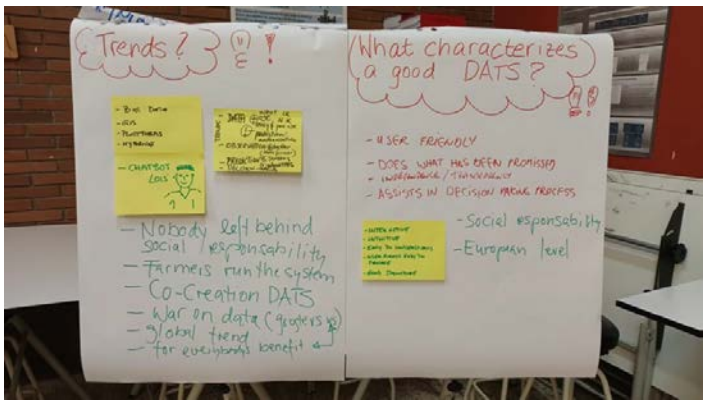
Conclusions

Q1: What characterizes a good DAT?

- Userfriendly, Easy to understand
- Intuitive, good structure
- Does what was promised
- Assists decision making process
- Interactive
- User rights: easy to manage
- Social responsability
- European level

Q2: What are some trends regarding DATs?

- Big DATA, GIS, Platforms
- Hybrid
- Chatbot Lois
- Better DATA Input/use
- Less protection/authorization !
- Prediction
- Better observation (satellites)
- Better prediction with sensors, algorithms
- Better decision making DSS
- Social responsibility: Nobody is left behind
- Farmers run the system
- Co-Creation of DATS
- War on data: google vs all of us
- For everybody's benefit



5. WORKSHOP 05

The role of advisory services on the uptake of SmartFarming technologies on farm level (powered by SmartAgriHubs)

Language: English

Coordinator:

Martin Hirt
Austrian Chamber of Agriculture (LKO)
Austria
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Speaker:

Pompeu Pais Dias
CONSULAI
Portugal
pdias@consulai.com

Following today's agricultural debate someone could conclude there is no more recent topic than digitization. Expectations arising from EU strategies suggest that there's a huge potential in gaining ecological but also economic and social benefits for farmers and rural societies.

Advisory services are said to play a key role in fostering the uptake of digital technologies. Nevertheless when getting to the farm level barriers like doubtful economic assessment, complexity of various types of technologies or missing technical or educational framework occur.

In this workshop participants discussed their experiences on how to integrate Smart Farming technologies into their advisory services and learned about possible ways to enable a fruitful technology transfer. Furthermore the speakers explained SmartAgriHubs initative and discussed the role of Digital Innovation Hubs.

Workshop Objetives:

- exchange of experiences and different ways of dealing with new AgTech in advisory
- learn about concepts like SmartAgriHubs and Digital Innovation Hubs.

Participants: 6

	Apelidos	Nome	Institucion	Pais
1	Cuesta Arenas	Yaite	Southern Agricultural and Horticultural Organization (ZLTO)	the Netherlands
2	Egger	Reinhard	Landwirtschaftskammer Tirol	Österreich
3	Hirt	Martin	Landwirtschaftskammer Österreich	Österreich
4	Kelly	Tom	Teagasc	Ireland
5	Oliveira	João Pedro	Consulai	Portugal
6	Pais Dias	Pompeu	Consulai	Portugal
7	Sabio Fernández	Rafael	ASESORÍA TÉCNICA AGRARIA	España

Workshop Development:

The workshop was powered and organized by SmartAgriHubs Regional Clusters Central Europe. For approximately 5 years, agricultural branch has been discussing disruptional effects of the digital transformation for farmers and rural areas across Europe. Especially digital skills and up-to-date advisory services are meant to play a crucial role in preparing farmers for the digital age. Nevertheless, the specific services which can be delivered by public consulting agencies especially in Smart and Precision Farming are estimated not coherently by various stakeholders.

The discussion topics within the workshop at IALB meeting included:

- Knowledge transfer through stronger cooperation between advisory and research; researcher as trainers in further education

- Focus on economic aspects of new technologies in advisory

- Using digital data sources like geodata-based mapping for more individual advisory

- Using digital advisory tools for more standardized and evidence based recommendations

- Cross-selling of advisory services of digital services with funding advice

- Fostering digital methods in advisory like blended and mobile consulting

Conclusions:

Participants concluded that main role of advisory services is rather to accompany farmers to get along with changes , chances and challenges of digitization in agriculture, than to recommend specific products or machinery.

6. WORKSHOP 06

The AKIS for a modern and sustainable agriculture: The role of advisors, supporting CAP interventions and Horizon Europe projects

Language: Simultaneous interpretation in Spanish/English/German

Coordinators

Florian Herzog / Dr. Elena-Teodora Miron
Austrian Chamber of Agriculture
LKÖ - Austria

Keynote Speaker

Inge van Oost
European Commission/DG Agri
Belgium

Speakers

Sylvain Sturel
Chambers of Agriculture
France

Dr. Mark Gibson
TEAGASC
Ireland

Dr. Andrés Montero Aparicio
Spanish Government
Spain

Agricultural production is undergoing a systemic transformation and effective Agricultural Knowledge and Innovation Systems (AKISs) are key to achieving visionary goals like the European Green Deal. AKIS success relies strongly on advisors, as acknowledged by the crosscutting objective "Modernization of Agriculture" of the new CAP policy framework. For this goal, it requires all advisors to be fully integrated in the AKIS. However, how this can be achieved in an EU-wide system marked by diversity at national, regional and even local level, with ongoing trends towards decentralization and privatization is yet to be fully understood.

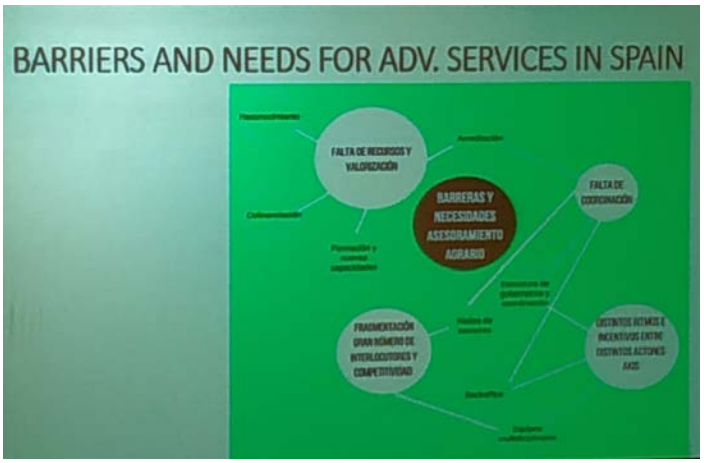
Participants: 39

	Apelidos	Nome	Institucion	Pais
1	Alibés Biosca	Joan	Beealia SC	España
2	ALVAREZ SANCHEZ	FE	ASOCIACION MONTES E VALES ORIENTAIS	ESPAÑA
3	Besteiro García	Consuelo	Autónomo	España
4	Caslin	Barry	Teagasc	Ireland
5	Coll	Tom	Teagasc	Ireland
6	DEVKOTA	GANESH	WOMAN RESCUE CULTURE AND ENVIRONMENT CONSERVATION	NEPAL
7	Dzelme	Anita	Latvian Rural Advisory and Training centre / EUFRAS	Latvia
8	Ellermann-Kuegler	Karin	Verband der LWK, EU Verbindungsbüro der Landwirtschaftskammern	Belgien
9	Ferreiro Fente	José Manuel	Conselleria do Medio Rural.	España
10	Fichtner	Henrik	Sächsiches Landesamt für Umwelt, Landwirtschaft und Geologie	Deutschland
11	Georgiev	Delyan	National Agricultural Advisory Service	Bulgaria
12	Gibson	Mark	Teagasc	Ireland
13	Gysen	Marleen	Boerenbond	Belgium
14	Harlio	Annika	ProAgria	Finland
15	Hrovatič	Igor	Chamber of Africulture and Forestry of Slovenia (CAFS)	Slovenija
16	Huliyan	Magardich	NATIONAL AGRICULTURAL ADVISORY SERVICE(NAAS)	Bulgaria
17	Juhola	Jussi	Association of ProAgria Centres	Finland
18	Keane	James	Teagasc	Ireland
19	Kügler	Michael	EUFRAS	Belgien
20	Miriam	Ehret	Bundesministerium für Ernährung und Landwirtschaft (BMEL)	Germany
21	Mosquera Losada	Mª Rosa	University of Santiago Compostela	España
22	Neuwirth	Julia	Landes-Landwirtschaftskammer Niederösterreich	Österreich
23	Nimo Silva	Abelardo	AGACAL	España

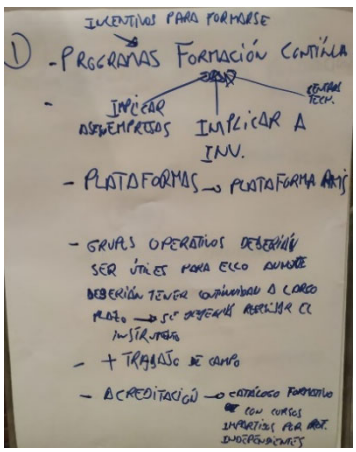
24	PALLER	Franz	Bundesministerium für Landwirtschaft, Regionen und Tourismus (BMLRT)	Österreich
25	Pardo Rodríguez	José Luis	Gdr 3 montes e vales orientais	España
26	Paree	Peter	Southern Agricultural and Horticultural Organization (ZLTO)	the Netherlands
27	PERALES ARROYO	XIANA	AXENCIA GALEGA DA CALIDADE ALIMENTARIA (AGACAL)	ESPAÑA
28	Preining	Klaus	Landwirtschaftskammer Oberösterreich	Österreich
29	REGUEIRA CAMANIEL	MARTA	AGACAL	ESPAÑA
30	RODRIGUEZ AUBO	NURIA	FEUGA	España
31	Rodriguez Rodriguez	Carlos Alberto	DEPUTACIÓN PROVINCIAL DE LUGO	España
32	SHRESTHA	LAXMI	WOMAN RESCUE CULTURE AND ENVIRONMENT CONSERVATION	Nepal
33	Spaans	Annick	ZLTO	Nederland
34	Stocker	Fritz	Landwirtschaftskammer Steiermark	Österreich
35	Sturel	Sylvain	Chambres d'Agriculture France	France
36	Tourneur	Léa	Association de coordination technique agricole - ACTA	France
37	Vér	András	Széchenyi István University	Hungary
38	Wielinga	Eelke	ZLTO	The Netherlands
39	Wohlgschaft	Maximilian	Bay. Staatsministerium für Ernährung, Landwirtschaft und Forsten	Deutschland

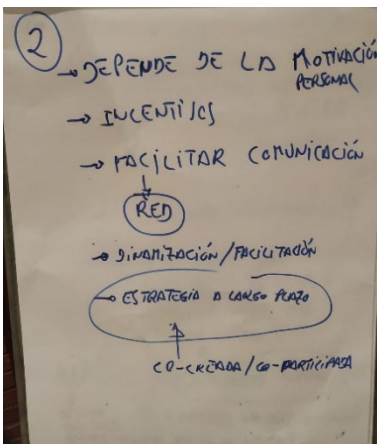
Objectives:

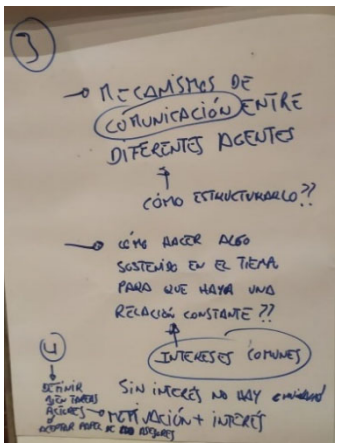
The workshop aimed to offer a platform for advisors and other AKIS stakeholders to discuss the opportunities of new CAP interventions, explore advisors' expected role in AKIS, the barriers and opportunities they face as well as to understand how Horizon Europe projects can support them navigating this transformation process.



Workshop Development:
After two main conferences and three national speakers from AKIS, participants held debates in small groups and exchanged experiences, followed by a final session where they synthesized the findings and fed them back into the appropriate AKIS channels.







7. WORKSHOP 07

Land management and other measures against rural depopulation. Instruments and measures still to be developed.

Language: Spanish, with some translation into English

Coordinator:

Prof. Dr. Ines Santé-Riveira
Director General of Rural Development Agency (AGADER)
Galicia, Spain

Speakers:

Xosé Lago García
Subdirector General of Cross-Border Cooperation for Galician Government (Xunta de Galicia)
Spain

Jaime Izquierdo Vallina
Government of the Principality of Asturias
Spain

The importance of land use as a factor in the sustainability of agricultural activity. The problem of land abandonment and its relationship to generational change and forest fires: How can extension workers effectively support these processes?

The search for solutions:

- Model villages, agroforestry enterprises, joint management measures.
- Agricultural banks, land banks, agricultural swaps.
- Instruments for the management of agricultural land
- Social policy. The need for extension services for their implementation.
- Innovation processes to bring knowledge to rural areas.
- Other measures to achieve sustainability

Participants: 15

	Apelidos	Nome	Institucion	Pais
1	Ares Paredes	Nicolás	Agaca	España
2	Blanco Puente	Marta	ASOCIACIÓN PARA EL DESARROLLO RURAL COMARCA DE LUGO	España
3	Bory	Andrea	AGRIDEA	Suisse
4	Calvo de la Uz	Isaías	Axencia Galega de Desenvolvemento Rural	España
5	Cimermane	Līga	EUFRAS	Latvia
6	Gómez Pardeiro	Vera	None	España
7	González-Redondo Are	Alfonso Carlos	Servicio de Explotaciones Agrarias, Pontevedra	España
8	López Calvo	Francisco	AGACA	España
9	Maurer	Waltraud	landwirtschaftskammer steiermark	Österreich
10	Nanín Saez	Ignacio Alfredo	ADMINISTRACIÓN LOCAL	España
11	Ofuoku	Albert	Delta State University, Abraka, Nigeria	Nigeria
12	Paniagua Pravia	Isabel	ITA Paniagua	España
13	Peixoto Torres	Pablo	Xestega, enxeñería agroforestal	España
14	ROCHA GRANDE	JOSE	CONSELLERIA DE MEDIO RURAL	España
15	Santé Riveira	Inés	Directora General de AGADER	España
16	Vázquez Rodríguez	Emilio Iván	Consellería do Medio Rural	España

Workshop Development:

1. Presentation and introduction by Inés Santé. The Law to Recover Agrarian Land in Galicia

In May 2021, the Law to Recover Agrarian Land came into effect with the ambitious goal of making abandoned lands productive again and to facilitate access to these farming areas. The recovery of abandoned lands would also contribute to local food security. The law's main aim is to guarantee Galicia's agroforestry sustainability, thereby improving the quality of life in the rural.

Three instruments for land recovery:

Model Villages

-They are instruments promoted by the town governments

- The aim is to revitalize agrarian activity around population nuclei, so that these lands act as firebreaks as well.

- Interested towns must present an application with the proposed perimeter of the model village and demonstrate the agreement of 70% of the landowners of the proposed area

- Currently there are 21 approved Model Villages and 7 seeking signatures

Agroforestry parks

-By public or private initiatives

-Meant to increase production in fertile areas that are underused or abandoned

- 50% of the lands must be abandoned in order to create an agroforestry park

Joint Management Groupings

-Promoted by associations, ONGs, mercantile societies, etc

-Prevent land abandonment while also improving the environment and creating jobs

-Require at least 10 ha and permission to use 70% of the land

2. Presentation by Xosé Lago García: Governmental Strategic Plan for Rural Depopulation: The Galician Case

Galicia has been part of the macro-region RESOE (Regions of Southwest Europe) since 2010, along with Castille and Leon, Northern Portugal, and later joined by Central Portugal and Cantabria. This macroregion contains a high percentage of rural lands and faces common challenges regarding an aging population and a depopulated rural area.

In 2020, the Governmental Strategic Plan for Rural Depopulation was enacted, implemented by the OECD, with colaboration and funding by the European Commission.

The Plan for Joint Action for the RESOE macro-region include:

1.Entrepreneurship, innovation and digitalization, with the following recommendations:

Foster a rural approach to the entrepreneurial ecosystem and enhance opportunities for rural businesses.

Develop a common smart specialization strategy and a joint innovation vision for the macro-region.

Increase cooperation for the implementation of broadband connectivity and digitization of public services in rural areas.

2. Multilevel governance, specifically regional and local governance and finance structure in RESOE regions and these recommendations:

The National Government can take an active role in promoting and better coordinating vertical collaboration mechanisms.

Deepen horizontal macro-regional collaboration.

Territorialize and diversify the areas of collaboration with Portugal.

3. Presentation by Jaime Izquierdo Vallina: The 21st Century Village

Jaime Izquierdo Vallina is commisioned for the Demographic Challenge in the Principality of Asturias.

In his presentation he reflected on the post-industrial future of villages, those small urban structures scattered throughout the rural territory more xenuinamente peasant, and exposes the important role they can play in the future as integral managers of the territory, as well as producers of landscape, biodiversity and unique foods. Likewise, he points out the potential of villages as living cells in which to discover our capacity to evolve as ecological beings. After a brief historical digression on the villages, he raises the need for a State policy in such a way that a "new economy for the village" can be promoted, adapted to the demands and opportunities that are opening up in contemporary society for these small, rural urban centers by nature, culture and history.

8.- WORKSHOP 08

Management in organisations providing rural advisory services - insights and initial experiences from an international pilot training course organised by Agridea/Entra in cooperation with the IALB

Languages: German and English

Coordinators:

Marc Vuilleumier
AGRIDEA
Switzerland

Ruth Moser
AGRIDEA
Switzerland

The agricultural and food sectors are undergoing a major transformation and, with them, the organisations that provide advisory services. The expectations of customers, policymakers and the general public are growing while budgets remain tight. Importance is attached to increasing efficiency and cutting costs while simultaneously driving innovation. A new generation of younger employees with changing needs is accompanied by a shortage of skilled workers.

Managers of organisations providing advisory services have to find strategic answers to these opposing forces and at the same time initiate and implement the necessary change processes. As part of a pilot project, Agridea and Entra, in cooperation with the IALB, organised the first European certificate course on management in organisations offering rural advisory services ("Management in ländlichen Beratungsorganisationen"). Managers from Austria, Switzerland, Germany and South Tyrol discussed these issues in four training modules and benefited from the input of selected experts and practical reports.

agridea entra beratung agrar ialb

Participants: 11

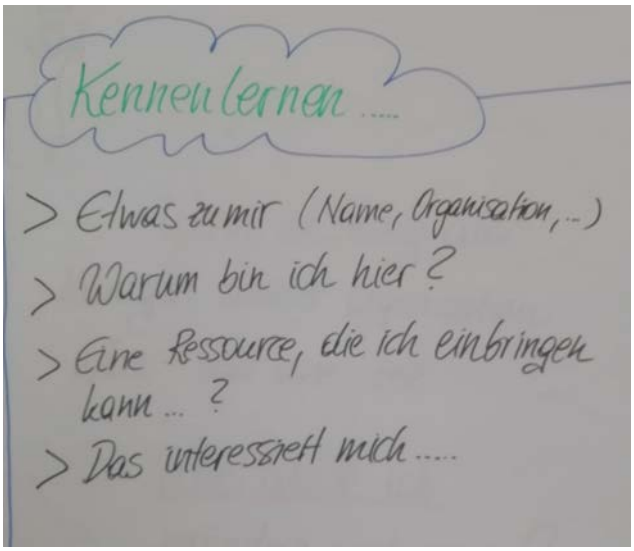
	Apelidos	Nome	Institucion	Pais
1	Bauer	Ingeborg	Vizepräsidentin der IALB	Deutschland
2	Bhandari	Narayan	WOMAN RESCUE CULTURE AND ENVIRONMENT CONSERVATION	NEPAL
3	Bondari	Aurelia	FEDERATION OF AGRICULTURAL PRODUCERS from Moldova "FARM"	Republic of Moldova
4	Diaz	Florentino	USC	España
5	Fisel	Thomas	entra	Deutschland
6	Neumann	Eva-Maria	Sächsischen Landesamt f. Umwelt, Landwirtschaft und Geologie	Deutschland
7	Orcaray Echeverría	Luis	INTIA	España
8	PEREZ ROUCO	JUAN	AIRA S.C.G.	ESPAÑA
9	Verk	Leho	Rural Development Foundation (MES)	Estonia
10	Vuilleumier	Marc	AGRIDEA	Schweiz
11	Wiesend	Regine	Bayerisches Staatsministerium für Ernährung, Landwirtschaft und Forsten	Deutschland

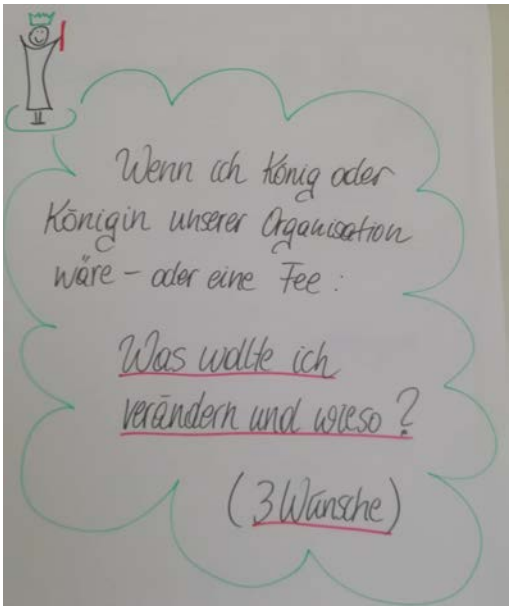
Objectives:

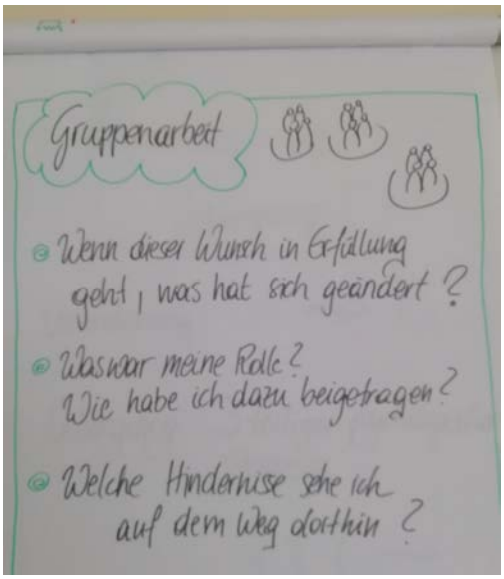
- engage participants in dialogue about current strategic challenges
- share "best of" selected content (leadership and change management; customer orientation and performance management; future organisation; employer attractiveness and human resource development)
- provide an overview of the content and methodology of the pilot course

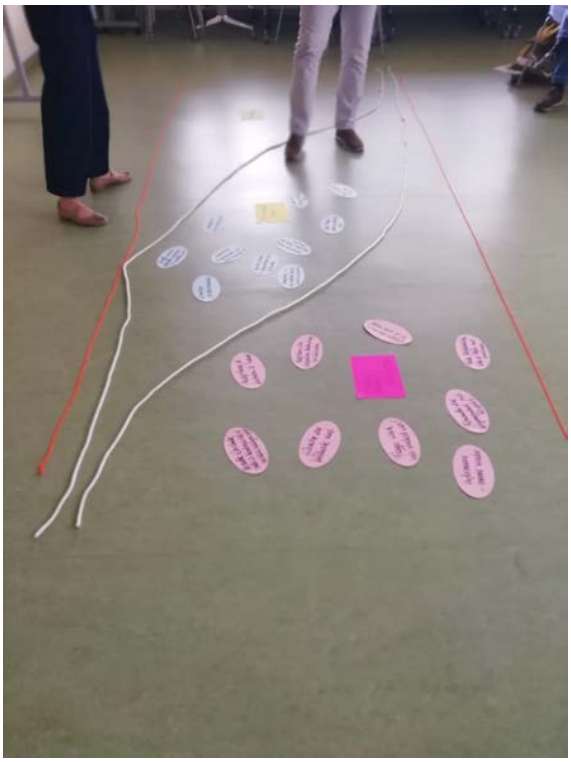
Methodology:

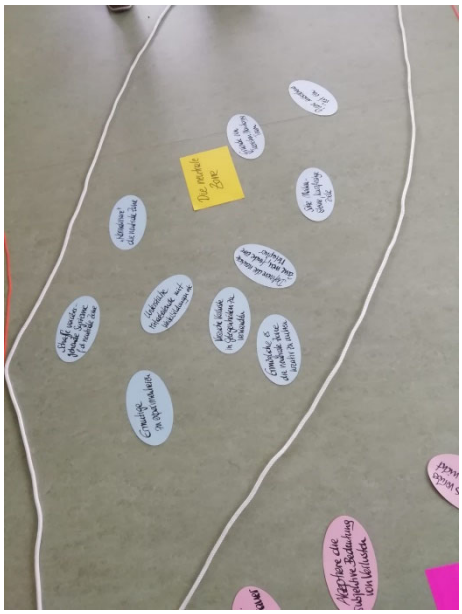
Interactive presentation with exchange of experiences

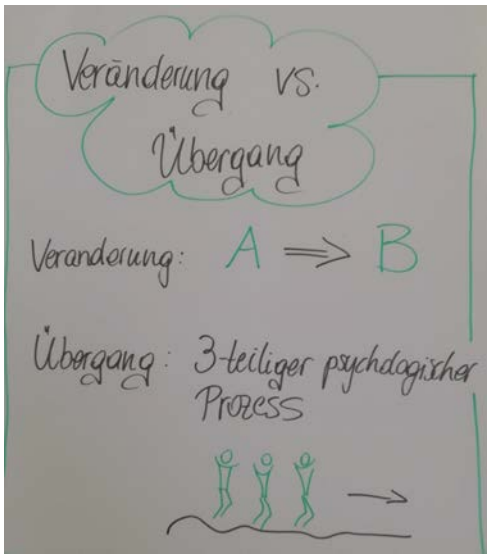



Wenn ich König oder
Königin unserer Organisation
wäre – oder eine Fee:
Was würde ich
verändern und wieso?
(3 Wünsche)


Gruppenarbeit
Wenn dieser Wunsch in Erfüllung
geht, was hat sich geändert?
Was war meine Rolle?
Wie habe ich dazu beigetragen?
Welche Hindernisse sehe ich
auf dem Weg dorthin?






Veränderung vs.
Übergang
Veränderung: A ⇒ B
Übergang: 3-teiliger psychologischer
Prozess

9.- WORKSHOP 11

The role of extension workers in implementing the CAP's green architecture instruments: extended conditionality and eco-regulations. Less bureaucracy for farmers and extension workers?

Languages: Spanish/English

Coordinators:

Prof. Dr. Emilio R. Diaz Varela
Dept of Plant Production. USC
Galicia, Spain

Prof. Dr. Ana Isabel Garcia Arias.
Dept of Applied Economics. USC.
Galicia, Spain

Prof. Dr. Ibán Vázquez
Dept of Applied Economics. USC
Galicia, Spain

Speakers:

Prof. Dr. Edelmiro López Iglesias
Dept of Applied Economics. USC
Coordinator of the USC support team for the preparation of the CAP Strategic Plan in Galicia.

Jorge Piñeiro Mariscal
Deputy Director-General for the CAP in Galicia. Xunta de Galicia.

The new CAP, through the so-called ''green architecture'', contains a number of new approaches and guidelines for dealing with the relationship between agriculture and the environment and for combating climate change. These instruments include strengthened cross-compliance for receiving subsidies, participation in eco-schemes and the implementation of agri-environmental measures.

In this context, it becomes relevant to know what role advisors play in the implementation of these instruments: From the challenges posed by increased cross-compliance, eco-schemes and agri-environmental measures in terms of bureaucratic simplification and implementation on the ground, to the current situation, needs and solutions envisaged in the different countries, to the acceptance of the new measures by farmers.

Participants	Organization
Grupo 1 Ana Isabel García	
Muiños Lodeiro, Carmen	Ingenieros Agrícolas
García Álvarez, Antonio	Aira Cooperativa
Santoalla Lorenzo, Ana Belén	Servicio de Explotacións - Consellería MR
Vázquez Queizán, Manuela	Entidade de Aconsellamento Agriña
Grupo 2 Ibán Vázquez	
García Louzao, Sergio	Unión de Cooperativas AGACA
Trastoy Polo, Susana	Alta Montaña Galega (ALMOGA) S. Coop. Galega
Amarelo Morado, Verónica	Gabinete Técnico Agropecuario Terra Chá, S. Coop. Galega

Workshop Development:

Presentations.

1. *The new green architecture of the CAP* by Profesor Edelmiro López Iglesias

-The CAP 2023-2027 established a new green architecture with two main changes

A. reinforced cross-compliance, which incorporates new mandatory requirements for the receipt of direct aid

B. eco-schemes, a new type of payments in favor of climate and environment, of voluntary application for farmers, endowed with at least 25% of the funds for direct aid of the first pillar

2. *Reforced Conditionality* by Alberto Méndez Eiroa, Technician of the company TragsaTec assigned to the General Subdirection of CAP Managment of the Xunta de Galicia

- the new green architecture established by the CAP 2023-2027 includes the reinforcement of the system that has been applied in terms of Cross Compliance, becoming what is called "Enhanced Cross Compliance".

-referred to the elements of "Enhanced Cross Compliance" within the framework of Spain's CAP Strategic Plan.

Breakout Session.

Due to time constraint, the four German-speaking participants did not take part in the dynamic so that only Galician participants did. Divided into two groups, they debated about four main topics:

- The role to be assumed by extension agents/other professionals facing the new challenges of the CAP's green architecture.
- Difficulties to be faced.
- Identification of needs.
- Contributions by rural extension professionals to the process of change to come.

Conclusions:
The main conclusions drawn from the presenters were:

- Complexity of the new green architecture
- Burocratic simplification in the new period
- Esssential role of the extension
- Needs that still have to be covered

Once the ideas from the breakout session were prioritized and classified, the following conflusions were drawn:

-**The role of extension agents/other professionals**: integral advising, mediation, and training

- **Difficulties to face**: aging population, fear of change, lack of professionalization in the field,poor adoption to new technology, lack of time, land use planning difficulties

-**Identification of needs:** economic security, coordination and contact with the administration, training

-Rural Extension Professionals' Contributions: professionalism, experience, trust, outreach

The implementation of the green architecture of the new CAP appears to be full of great uncertainties, some ambiguities, and with a high level of demand with respect to the new orientations and types of measures to be implemented, which suggests a greater complexity and bureaucratic burden. Nevertheless, it seems clear that the role that rural extension technicians must assume in the exchange of information, training, comprehensive advice and administrative management will be essential to ensure success throughout the process. The main difficulties to be faced have to do with the lack of professionalization of the sector, the difficulty in adopting new technologies, as well as the insufficient appreciation of the work done by the advisors. This requires three elements: adequate remuneration for the services provided, effective coordination between the agents involved in the process, and adequate training to facilitate better performance of their functions. The main contributions of the rural extension agents to this process of change are based on the high professionalism of the technicians, their extensive experience in other programs, their close trust with the farmers and their ability to act as intermediaries.

10. WORKSHOP Nº 12

Processes of exchange and transfer of knowledge to the rural sector through extension. Current status in Galicia. Importance of the knowledge chain. Analysis of needs.

Language: Spanish

Coordinator:

Dr. Manuel López Luaces
Head of Agrarian Training, Innovation, and Research
Galician Agency for Food Quality (AGACAL)

Speakers

Xosé Antonio Meixide Fernández
(AGACAL).

Dr. Natalia Bellostas Muguerza.
Managing Director of INTIA, S.A
Navarra, Spain

In Galicia, at the beginning of the 1980s, the public extension service began a process of transformation in which it gradually took on the role of administrative management of CAP compliance, evolving towards the current model in which it coexists with the work carried out by private advisory bodies.

In this reality, the EU is promoting a model that transcends the traditional linear model of advice developed in previous programming periods (fundamentally linked to compliance with certain aspects of the CAP) and implies that agricultural advisors must acquire new competencies and skills to play new roles, attending to the needs of producers in a more multidisciplinary way than the current advice.

The transition to a more interactive multi-directional model gives greater relevance to the future role of advice within AKIS.

Participants: 24

	Apelidos	Nome	Institucion	Pais
1	Bande Castro	María José	AGACAL-CIAM	España
2	Bellostas Muguerza	natalia	INTIA	España
3	BESTARD ROSSELLO	ANTONIO	CELTIA AGROENXEÑERIA SL	ESPAÑA
4	BLANCO BALLÓN	JORGE MANUEL	ASOCIACIÓN DESENVOLVEMENTO RURAL MARIÑAS-BETANZOS	ESPAÑA
5	Calvo Santalla	Carmen	CIAM-AGACAL	España
6	CUBA CAMPELLO	CARLOS	XISTER SDAD COOP GALEGA	ESPAÑA
7	FERRERAS PERTEJO	JUAN CARLOS	CFEA SERGUDE, AGACAL, XUNTA DE GALICIA	ESPAÑA

8	ISORNA POTEL	JUAN JOSÉ	AGACAL	ESPAÑA
9	JAKAB GABORNE	AGNES	HUNGARIAN CHAMBER OF AGRICULTURE	HUNGARY
10	JORGE FERNÁNDEZ	MARÍA ARÁNZAZU	AGACAL	ESPAÑA
11	LEDO FERREIRO	CARLOS	UNIONS AGRARIAS	España
12	López Colmenero	Elena	fundacion Juana de Vega	España
13	LÓPEZ LUACES	MANUEL	AGACAL	ESPAÑA
14	LÚGARO SECO	PABLO	AGACAL	ESPAÑA
15	Meixide Fernández	Xosé Antonio	AGACAL	España
16	NIETO PÉREZ	JUAN CARLOS	CFEA SERGUDE	ESPAÑA
17	PARDO LOPEZ	MARINA	ADSGESTION	ESPAÑA
18	PIÑEIRO SOTELO	MARIA ELENA	PINTAS E RUBIAS ASESORAMENTO E XESTIÓN INTEGRAL SCG	ESPAÑA
19	REGO MARTÍNEZ	MARÍA CARMEN	CONSELLERÍA DO MEDIO RURAL	ESPAÑA
20	RIPOLL YANCI	ANA	AGACAL	ESPAÑA
21	RODRÍGUEZ VILA	SANDRA MARÍA	SERVIZO DE EXPLOTACIÓNS AGRARIAS DA CORUÑA	ESPAÑA
22	Román Vilar	Mª Ángeles	Agacal	España
23	Schüßler	Sandra	Landwirtschaftsamt Bruchsal, Landratsamt Karlsruhe	Deutschland
24	Villanueva Lopez	Javier	Agronovo Ecoloxia SL	España

Workshop Development:

Presentations

- Introduction by Manuel López Luaces who explained the steps being developed in the structuriing of AKIS in Galicia and the adaptations of agents in this new organization.

- Presentation by Xosé Antonio Meixide Fernández: *The evolution of public advising in Galicia.* Here the speaker reviewed agrarian advising in Galicia from the second half of the 20th century up to the present day.

- Presentation by Natalia Bellostas Muguerza: The AKIS in Navarra: Generation and Transfer of Knowledge from a Public Advising Body, in which she spoke of the history from 1980 to the present day. She also explained the work done to create the AKIS in INTIA with the identifiaction of agents, tools, and the role that AKIS plays in Navarra. The second part of the presentation focused on how R&D is organized and the transfer of knowledge from INTIA, including a review of R&D programs in which INTIA has participated in the last few years. Lastly, the speaker reflected on the new role that advisores will play in the new programming period, as agents of innovation.

Finally, Natalia reflected on the new role that advisors will have to play in the new programming period as agents of innovation.
Once the presentations were finished, a space for group work was opened. Attendees were divided into three groups and had a time for reflection and based on three questions that served as a common thread.

Group Work
Three groups were created to work and reflect in groups based on the following questions:

1. Measures and tools to integrate and coordinate public and private consulting. Compatibility and synergies.

2. What do advisors need to play the role of innovation agents in the new multidirectional model promoted by Europe?

3.- Measures and tools to improve the transfer of knowledge from the knowledge centers to the agricultural and livestock sector in Galicia.

Conclusions:

1. *Measures and tools to integrate and coordinate public and private consulting*

-Create areas of trust/networks/forums for joint work which will allow an exchange among public and private advisors

-Guarantee that all agents receive the same information, avoiding bias, remaining impartial

-There's room for everyone!

2. *What do advisors need to play the role of innovation agents in the new multidirectional model promoted by Europe?*

-Methodological training (annual, mandatory, programmed)

-Tools and training to counteract those resistant to change; conflict management

-Search for intelligent systems to reduce burocracy

-Specialized training related to digitalization challenges and R&D

-Planning!

3.- *Measures and tools to improve the transfer of knowledge from the knowledge centers to the agricultural and livestock sector in Galicia.*

-Seminars, exchange visits, demonstrations

-Digitial tools are useful if you know them well

-Online training

-Information Technology and exchanges!

Presentation of Posters for the Congress

Lugo, 24 June 2022

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TABLE OF CONTENTS

1.- INNOTOUR BAYERN

INNOVATION PROJECT IN THE STATE OF BAVARIA, GERMANY.

Author: Pablo Asensio, Staatliche Führungsakademie für Ernährung, Landwirtschaft und Forsten
pablo.asensio@fueak.bayern.de

The InnoTour Bayern is a Bavarian road show on innovations in agriculture, forestry and nutrition to stimulate and accelerate innovation. It started 2021. In each of the seven administrative districts, a one to two-day event takes place on a farm or production site with innovation character. In addition to farmers and foresters, the target groups are interested companies and consumers, research and advisory services. For each event there a interdisciplinary discussion and working group ("multi-actor group") is composed with selected participants from different disciplines to gain a multi-perspective understanding of the innovation at stake and to boost the thematic-oriented network within the agricultural knowledge and innovation system AKIS. The focus of the InnoTour Bayern is on sustainable, socially accepted and economically feasible ideas and concepts with added value and lighthouse character. A film documentary will create a factual library on innovation.

www.stmelf.bayern.de/innotour

Denise Ludwig from the Weihenstephan-Triesdorf University of Applied Sciences actively accompanied the InnoTour and evaluated it as part of her master's thesis in agriculture. The evaluation results and feedback from the InnoTour participants have been incorporated into the systematic improvement management of the InnoTour Bayern, which has been further developed and improved from event to event. The InnoTour will also be presented in Workshop No. 1 of the conference. The poster contains the evaluation approach and evaluation results.

The original poster can be found on the following page.

WEIHENSTEPHAN · TRIESDORF
University of Applied Sciences

Bayerisches Staatsministerium für Ernährung, Landwirtschaft und Forsten

DIE INNOTOUR BAYERN

InnoTour Bayern
Aus der Praxis – für die Praxis

www.stmelf.bayern.de/innotour

MASTERARBEIT ÜBER EINE NEUEN VERANSTALTUNGSREIHE ZU INNOVATIONSMANAGEMENT 2021/2022

Problemstellung

- Innovationsdruck der Gesellschaft auf LFE (Land-, Forst- und Ernährungswirtschaft)
- Bayerisches Staatsministerium für Ernährung, Landwirtschaft und Forsten (StMELF) als Innovationsförderer

-> Neues Veranstaltungskonzept: InnoTour Bayern

Zielsetzung

- Evaluation der InnoTour Bayern
- Übertragungsfähigkeit der InnoTour auf die Ämter für Ernährung, Landwirtschaft und Forsten (ÄELF)

Methodik

- Analyse von drei Veranstaltungen:
  - 30.06.2021: Nachhaltiger Humusaufbau
  - 22.09.2021: Energieautarke Höfe
  - 28.10.2021: Direktvermarktung 2.0
- Online-Befragung aller Teilnehmenden im Nachgang an die Veranstaltung (Gesamte Stichprobe: 112; Erreichte Stichprobe: 63)
- Qualitative Interviews mit BeraterInnen und BehördenleiterInnen, um Potential der Adaption abzuschätzen (8 Interviews; Auswertung mit MAXQDA)

Konzept InnoTour

Die InnoTour ist eine ‚Roadshow' über Bayern verteilt, die auf innovativen Betrieben zu verschiedenen Themen stattfindet.

- **Interdisziplinärer Teilnehmerkreis** aus Forschung, Wissenschaft, Landwirtschaft, Beratung, Presse, Gesellschaft -> erfolgreich vernetzen
- **Innovationsanalyse** - Probleme erkennen, benennen, Lösungen entwickeln, neue Ideen mit Anwendungen kreieren
- **Handlungs- und Forschungsansätze ermitteln**, ggf. Projekte anstoßen, dadurch Innovation verbreiten
- Der Landwirtschaft eine Stimme geben - den **innovativen und nachhaltigen ländlichen Raum zeigen**

Ergebnisse & Schlussfolgerung

InnoTour als erfolgreiches Pilotprojekt

Bewertung und Weiterempfehlung InnoTour-Termine 2021; n=63 (Quelle: Umfrage InnoTour MA Ludwig)

	InnoTour 1	InnoTour 2	InnoTour 3	Gesamt
Note InnoTour Tag	2,74	1,5	1,91	2,02
Weiterempfehlung in %	75%	94%	100%	90%

Das sagen die Teilnehmerinnen und Teilnehmer:

„...tolles Konzept! Die Kombination der unterschiedlichen Berufsgruppen machten den Tag einzigartig."

„Der Tag war sehr interessant und hat für die Beratung sensibilisiert"

„Ein interessanter Anlass, die Prozessgestaltung gemeinsam zusammenzufassen"

Präsent sein als InnovationsberaterInnen

- Erfolgreiche Innovationen bedürfen intensiver Begleitung und Unterstützung.
- Innovationsberatung zukünftig noch wichtiger; Positionierung der ÄELF

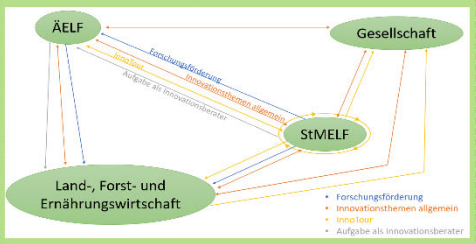
Erfahrung & Wissen der LFE-Branche nutzen

- Grenzübergreifender Austausch und Co-Creation sehr praxisnah und zukunftsorientiert - Probleme und Fragestellungen werden schneller behoben, Fehlentwicklungen und Insellösungen im Innovationsprozess eher vermieden

Die gesamte Branche fordern und fördern

- politischen Rahmenbedingungen, z.B. zielgerichtete Förderpolitik
- Betriebe über Fördermöglichkeiten aufklären und begleiten

Kommunikation als wichtigen Baustein ausbauen



Kommunikationsmatrix innerhalb der Agrarbranche in Bayern zur InnoTour (Quelle: MA Ludwig)

Konzept an den ÄELF fortführen

- Fortführung möglich, wenn Dienstleister, wie z. B. das StMELF in den Bereichen Netzwerk, Erfahrung, Wissen oder Moderation unterstützen.
- Konzept oder Leitfaden als hilfreiche Unterstützung.
- Anforderungen an die Umsetzung der InnoTour an den ÄELF:

Personal ÄELF	StMELF	Innovationen	Veranstaltung
• Kapazität • Bildung • Motivation • zeitliche Freiräume	• Innovationen als Priorität • Unterstützung (z. B. als Dienstleister)	• spannend • relevant • übertragbar	• regional vs. überregional • Häufigkeit

Noch Fragen?
denise.ludwig@student.hswt.de

2.- OPERATIONAL GROUPS

Authors: Nuria Rodríguez-Aubó, Sara Aparicio Ortega, Tamara Rodríguez Silva
FEUGA. GALICIA

The promotion and management of R&D and innovation projects is a key part on the activity of FEUGA, a non-profit private foundation. FEUGA's expertise on this area is a result of its more than 30 years designing public and private cooperation models between university, industry, society and Public Administration. FEUGA participates in the whole lifecycle of these projects, from the promotion to its management and execution. Furthermore, FEUGA offers solutions for the transfer of knowledge adapted to each project.

As a result of the activity carried out throughout these years, FEUGA has been member of more than 30 European and 20 Spanish and regional R&D and innovation collaborative projects related to the agri-food and forestry sectors. Thus, the commitment of FEUGA with the sustainable development of rural areas through innovation is complete.

The collaborative Spanish and regional projects presented in the EUFRAS event are listed below:

2.1.- GO AVIENERGY

AVIENERGY is a supra-autonomous project whose purpose is to promote a more efficient use of resources in the poultry sector by applying a strategy based on circular economy. The project will enable a more efficient use of the waste generated in the poultry activity to improve competiveness and reduce the environmental impact of the poultry sector. Its strategy is focused on valuating the generated manure in poultry farms for its use as an input to obtain a renewable energy source and fertilizer materials.

2.2.- GO MICOALGA-FEED

MICOALGA-FEED aim is to reduce or eliminate the use of antibiotics in livestock farming through natural feed based on fungi and microalgae. Different species of fungi and microalgae were assayed in order to select those with higher antimicrobial, immunomodulatory and anti-inflammatory capacity, to add them to new feed formulas specifically designed for poultry farms. Thus, local immunity and general welfare will be reinforced through feed, reducing the need of treatments.

2.3.- GO PROTEINLEG

The Operational Group PROTEINLEG develops high-quality food proteins, both for human and animal consumption, through the sustainable production and processing of local varieties of legumes. Thus, the project aims to provide alternatives to soybean, reducing the enormous dependency of the livestock sector to this plot. At the same time, PROTEINLEG will develop new healthy and tasteful food rich in vegetable proteins for human consumption.

2.4.- GO TIRAC

The objective of the TIRAC project is to reduce the consumption of antibiotics against digestive problems in fattening rabbits. The project is focused on studying different nutritional strategies together with the incorporation of algae extracts to improve intestinal health and, therefore, reduce or eliminate the use of antibiotics. At the same time, TIRAC aims to improve the quality of rabbit meat and enhance the algae production sector.

2.5.- ALGATERRA

ALGATERRA is a pilot project whose main objective is to develop new agricultural inputs with discarded seaweed produced in the food industry and test its effectiveness in both ecological farming and sustainable conventional agriculture. Thus, ALGATERRA will answer to the demand of farmers in organic farming systems and will increase sustainability in the Galician seaweed industry.

2.6.- BIOPROINSECT

The pilot project BIOPROINSECT will develop an innovative enzymatic process, similar to a bio-refinery, which will allow the extraction of chitin from the mealworm. Thus, the insect will be fractioned into three highly valued products: high quality and easily digestible proteins, poli-unsaturated fatty acids and chitin derivatives.

2.7.- GREENCASTANEA

The main objective of GREENCASTANEA is the implementation of a new, efficient and sustainable system for the in vitro production of Galician traditional varieties of chestnut trees, mycorrhized with Boletus edulis. This pilot project will, also, develop an innovative treatment against the chestnut tree wasp based on thermo-hydrotherapy. This approach will allow a flexible and sustainable production of chestnuts and fungi.

The original poster can be found on the following page.

+ 30 YEARS PROPELLING INNOVATION IN RURAL AREAS

Ángel Sanabria Garrido[1]
[1]Fundación Empresa-Universidad Gallega (FEUGA), Santiago de Compostela, Spain

www.feuga.es

The promotion and management of R&D and innovation projects is a key part on the activity of FEUGA, a non-profit private foundation. FEUGA's expertise on this area is a result of its **more than 30 years designing public and private cooperation models** between university, industry, society and Public Administration. **FEUGA participates in the whole lifecycle of these projects**, from the promotion to its management and execution. Furthermore, FEUGA offers **solutions for the transfer of knowledge adapted to each project.**

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The collaborative Spanish and regional projects presented in the EUFRAS event are enlisted below.

OPERATIONAL GROUPS

Operational Groups are innovation projects 80% co-financed by the European Agricultural Fund for Rural Development (EAFRD) of the European Union and 20% by the Ministry of Agriculture, Fisheries and Food, within the framework of the National Rural Development Program 2014-2020. The General Directorate of Rural Development, Innovation and Agrifood Training (CDRDIAT) is the authority incharge of the application of these aids.

Proteinleg

DEVELOPMENT OF HIG-QUALITY FOOD PROTEINS THROUGH THE SUSTAINABLE PRODUCTION AND PROCESSING OF LEGUME CULTIVATION

Budget: 558,947.39€. **Grant:** 552,147.39€

Partners: FEUGA (representative), MBG-CSIC, CTC, Almacenes Garnallo, Ramiro Arnedo and MIMIC SeaFood.

Subcontracted members: CNTA, Universidad Complutense de Madrid and Proseeds Hybrid.

Collaborator members: ADEGAL, AEL, AGACA, ASOPORCEL and BIOVEGEN.

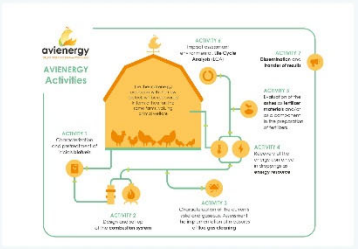
avienergy

FROM WASTE TO RESOURCE: CIRCULAR ECONOMY IN THE POULTRY SECTOR THROUGH THE USE OF ENERGY FROM MANURE

Budget: 583,672.84€. **Grant:** 565,872.84€

Partners: FEUGA (representative), EnergyLab, Demaux Manufactura, Granja José Antonio García, CEBAS-CSIC, Universidade de Vigo, Avícola El Charcón and ALIMER.

Collaborator members: Grupo UVESA and Fundación ALIMER.



TIRAC

INNOVATIVE TECHNIQUES FOR THE REDUCION OF ANTIBIOTICS IN RABBIT FARMING

Budget: 192,580.38€. **Grant:** 185,013.58€

Partners: De Heus (representative), FEUGA, PORTOMUIÑOS, Universidade de Santiago de Compostela and Universidad Politécnica de Madrid.

Subcontracted members: NARABA, PROGACUN and Granja J. Echegoyen.

MICOALGA+FEED

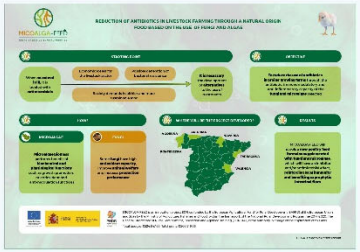
REDUCTION OF ANTIBIOTICS IN LIVESTOCK FARMING THROUGH A NATURAL ORIGIN FOOD BASED ON THE USE OF FUNGI AND ALGAE

Budget: 524,847.56€. **Grant:** 505,013.56€

Partners: FEUGA (representative), Grupo UVESA, Hifas Veterinary and Neoalgae.

Subcontracted members: AINIA, IRTA, Universidad de Oviedo y Universidade de Vigo.

Collaborator members: AECA-WPSA, Avianza, CESFAC y FEDNA.



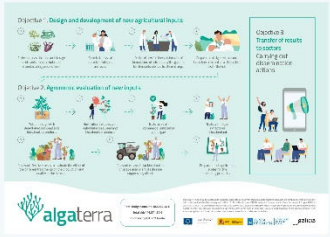
PILOT PROJECTS

algaterra

NEW AGRICULTURAL INPUTS FOR THE IMPROVEMENT OF ORGANIC CROPS MADE WITH SEAWEED FROM GALICIA

Representative: PORTOMUIÑOS

Cooperating agents: FEUGA, Universidade de Santiago, MBG-CSIC, Terras de Asorei, Riveiro Ecológicos and Horta Da Lousa.

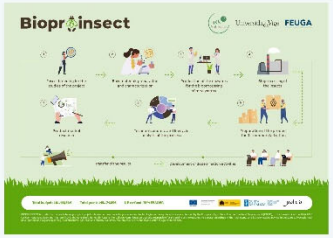


Bioprotinsect

INSECT BIOPROCESSING TO OBTAIN VALUE ADDED PRODUCTS

Representative: Galinsect

Cooperating agents: Universidade de Vigo and FEUGA



Greencastanea

PRODUCTION OF MYCORRHIZED CHESTNUT TREE THROUGH THE *IN VITRO* CULTIVATION AND INTRAVARIETAL SELECTION OF PGI VARIETIES

Representative: Hifas Foresta

Cooperating agents: Universidade de Vigo, IXP Castaña de Galicia, Soutos Sativa and FEUGA

3.- MULTIACTOR METHODOLOGY FOR CO-INNOVATION IN RURAL AREAS

Stakeholders Engagement through Regional Communities: an interactive multi-actor methodology for co-innovation in rural areas

Authors: Nuria Rodríguez-Aubó, Sara Aparicio Ortega, Tamara Rodríguez Silva

FEUGA. Galicia. Spain

Nowadays knowledge and innovation play a crucial role in helping farmers meet the future challenges linked to an increasing pressure on the use and management of natural resources and high political and societal ambitions with respect to sustainable ways of food production. The timely access and ability to integrate rapidly evolving information, (scientific) knowledge, innovation and technological developments across all actors who participate in agricultural value chains is key to a successful transition towards a sustainable Europe by 2030 [1]. To ensure that knowledge is shared between everyone who uses and produces it, and that people are connected, effective Agricultural Knowledge and Innovation Systems (AKIS) are needed across Europe [2]. Therefore, new and better ways to share knowledge and expertise are considered essential to keep agriculture and food production competitive, sustainable and rural areas alive. Farmers, foresters, researchers, advisers, businesses and rural communities should work together and share all useful information to facilitate the development of innovative solutions that work in practice. However, fostering co-creation and effective knowledge transfer in the agriculture and food production contexts is a complex issue due to the plurality of actors and the socio-cultural divergences between different geographical areas in Europe.

To cover this diversity, facilitating effective knowledge transfer processes, closing the gap with research and innovation and reinforcing Agricultural Knowledge and Innovation Systems (AKIS) across Europe, an interactive demand-driven innovation methodology has been developed (Franco, Rodriguez-Aubo et al. 2017) [3], based on the creation and activation of Regional Stakeholders' Communities. This methodology proposed by FEUGA to engage and organise the work of different local/regional stakeholders' communities following a Multi-Actor Approach [4] is conceived as a matrix organisational structure with two main dimensions and a linking element:

- Geographical dimension: the 'Regional Communities' will be organised at regional/local level and will represent the central meeting point for managing regional stakeholders' where the regional language will be used and main socio-economic conditions will be considered. This approach has been conceived considering the Facilitator Agent/Innovation Broker profile as key element to lead the Regional Community and link the different stakeholders' in a given

region (end-users/practitioners (farmers, foresters, breeders, etc.), advisors, policy makers, industry, consumers, etc.).

- Technical dimension: 'Technical Working Groups' will be organized to address main Scientific and technical topics/challenges at global level that require of collecting and validating information with Stakeholders (including the local and regional dimension).
- Linking element: The interaction between these two dimensions needs to be coordinated at global level by a dedicated figure acting as an 'Engagement Coach'. This overseeing figure is required to ensure a smooth and efficient interaction process between Regional Communities and Technical Working Groups by establishing clear and feasible goals, avoiding overlapping and ensuring shared decision-making alongside stakeholders. The latter is directly related to community building, the form of engagement that must be realised before interactive innovation is attempted.

This methodology was first successfully implemented by FEUGA in agroforestry and viticulture sectors, in AFINET [5] and WINETWORK [6] projects, taking advantage of H2020 EIP-AGRI Thematic Networks funding instrument [7]. Afterwards, the MAA methodology proposed by FEUGA has been extended and tested in Research and Innovation projects with European dimension in different agricultural related domains such as soil biodiversity (SoildiverAgro [8]), antimicrobial use (AMU) in animal production (ROADMAP [9]) and sustainable animal breeding (GEroNIMO [10]), among others. Therefore, this validated methodology benefits rural areas and the agri-food sector ensuring an efficient transfer of knowledge among key actors and stakeholders and fostering co-innovation within the regional communities, contributing at the end to reinforce Agricultural Knowledge and Innovation Systems (AKIS) across Europe.

The original poster can be found on the following page.

Stakeholders Engagement through Regional Communities: an interactive multi-actor methodology for co-innovation in rural areas

Nuria Rodríguez-Aubó[1] nrodriguez@feuga.es, **Sara Aparicio Ortega**[1], **Tamara Rodríguez Silva**[1]
[1]FEUGA, Galician Enterprise – University Foundation, Avda. López de Marzoa S/N Santiago de Compostela (SPAIN)

www.feuga.es

Nowadays knowledge and innovation play a crucial role in helping farmers meet the future challenges linked to an increasing pressure on the use and management of natural resources and high political and societal ambitions with respect to sustainable ways of food production. The timely access and ability to integrate rapidly evolving information, knowledge and technological developments across all actors who participate in agricultural value chains is key to a successful transition towards a sustainable Europe by 2030 [1]. To ensure that knowledge is shared between everyone who uses and produces it, and that people are connected, effective **Agricultural Knowledge and Innovation Systems (AKIS)** are needed across Europe [2]. Therefore, new and better ways to share knowledge and expertise are considered essential to keep agriculture and food production competitive, sustainable and rural areas alive. However, fostering co-creation and effective knowledge transfer in the agriculture and food production contexts is a complex issue due to the plurality of actors and the socio-cultural divergences between different geographical areas in Europe.

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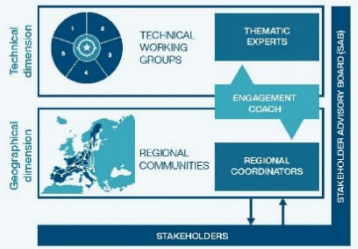
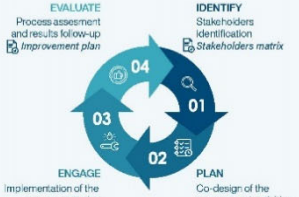
This methodology was first successfully implemented in agroforestry and viticulture sectors, in AFINET [5] and WINETWORK [6] projects, taking advantage of H2020 Thematic Networks funding instrument [7]. Afterwards, the MAA methodology proposed by FEUGA has been extended and tested in Research and Innovation projects with European dimension in different agricultural related domains such as **soil biodiversity** (SOILDIVERAGRO [8]), **antimicrobial use (AMU)** in animal production (ROADMAP [9]) and **sustainable animal breeding** (GERONIMO [10]), among others. Therefore, this validated methodology benefits rural areas and the agri-food sector ensuring an efficient transfer of knowledge among key actors and stakeholders and fostering co-innovation within the regional communities, contributing at the end to reinforce **AKIS** across Europe.

GOVERNANCE



ENGAGEMENT PROCESS



ENGAGEMENT PLAN

	Method	Objective	Tools
INFORM	One-way engagement	Dissemination	Website, Social networks, newsletters, factsheets, PR
CONSULT	Asymmetrical two-way engagement	Data gathering	Social networks, conferences, meetings and surveys
INVOLVE	Symmetrical two-way engagement	Community building	Discussions, interviews, workshops and trainings
CO-CREATE	Joint decision-making	Incorporate knowledge	Joint sessions, policy briefing, cross-learning workshops and Peer-to-Peer exchange

SUCESS STORIES

GERONIMO

G.A. nº 101000236

GEroNIMO: Genome and Epigenome eNabled breeding in MOnogastrics.
Innovative genome- and epigenome-enabled breeding selection

INFORM	COMMUNICATION & DISSEMINATION	All stakeholders
CONSULT	SURVEYS	Local Breeders, Breeders' associations
INVOLVE	EU WORKSHOP	Postgraduate students, researchers and animal breeders
	INTERVIEWS	Local Breeders, Breeders' associations
	LOCAL WORKSHOP	Researchers, breeding companies, governments and regulatory bodies
	TRAININGS	All stakeholders
CO-CREATE	JOINT SESSION	Experts in genome editing and animal breeding
	EXTERNAL EVENTS	All stakeholders

Soildiver Agro

G.A. nº 817810

SoildiverAgro: Soil biodiversity enhancement in European agroecosystems to promote their stability and resilience by external inputs reduction and crop performance increase.
New practices to boost crop quality and production.

INFORM	COMMUNICATION & DISSEMINATION	All stakeholders
CONSULT	SURVEYS	Farmers, associations
INVOLVE	16 CASE STUDIES	
	DISCUSSION GROUPS	Farmers (wheat, potatoes, vegetables), farmer associations, researchers, agribusiness, policymakers, industry advisors
	FIELD DAYS	
	TRAINING DAYS	
	REGIONAL MEETINGS	
CO-CREATE	JOINT SESSION	Researchers, policymakers, industry
	EXTERNAL EVENTS	Farmers, policymakers, industry and researchers

ROADMAP

G.A. nº 817626

Roadmap: Rethinking Of Antimicrobial Decision-systems in the Management of Animal Production.
Leading the fight against antimicrobial use arising from farmed animal production.

INFORM	COMMUNICATION & DISSEMINATION	All stakeholders
CONSULT	SURVEYS	Local farmers (poultry, pigs, dairy) and vets
INVOLVE	WEBINARS	Researchers, advisors and policy makers
	INTERVIEWS	Local farmers and vets
	CO-LEARNING EXCHANGES	Partners from the Living labs
	TRAININGS	All stakeholders
	CASE STUDIES	Local farmers and vets
CO-CREATE	JOINT SESSION	Researchers and AMU experts
	12 LIVING LABS	Key actors: farmers (poultry, pig, dairy), vets, industry, distribution, researchers)

References:
[1] https://ec.europa.eu/info/publications/reflection-paper-towards-sustainable-europe-2030_en
[2] Agricultural Knowledge and Innovation Systems (AKIS). Boosting innovation and knowledge
Board across Europe (EIP-AGRI), 2022)
[3] Franco, L., Rodríguez-Aubo, N., Ávarez, M. X., Quintín, D., Muñiz, S., Jesús, S. - Implementation and validation of a demand-driven innovation methodology for knowledge transfer in the
agri-food sector: a multi-actor approach (2017)
[4] Multi-actor projects (EIP-AGRI Brochure, 2017)
[5] AFINET https://cordis.europa.eu/project/id/727872
[6] WINETWORK https://cordis.europa.eu/project/id/652601
[7] EIP-AGRI Thematic Networks
[8] SoildiverAgro https://cordis.europa.eu/project/id/817819
[9] ROADMAP https://cordis.europa.eu/project/id/817626
[10] GEroNIMO https://cordis.europa.eu/project/id/101000236

4.- GREEN CARE SWITZERLAND. AGRIDEA

Foundation of the sectoral organization Green Care Switzerland
Development of services in the agricultural care sector

Authors: Simone Hunziker, Andrea Bory
AGRIDEA, Switzerland

Currently, many different private and public placement organizations in Switzerland are in contact with various family farms individually in order to make use of care services. Newcomers to the agricultural sector need a lot of time to explore the diverse demand market and to define the most suitable offer for them and their farm.

Together with Carefarming Switzerland, AGRIDEA is organizing the founding of the new sector organization Green Care Switzerland (summer 2022). It is intended to link providers and consumers in the care sector and contribute to the further development of the offer. The central office will be tasked with developing quality standards, coordinating training and further education programs, advising on the conclusion of contracts and setting up an ombudsman's office, which are the cornerstones of Green Care.

Without directly providing operational mediation, Green Care Switzerland wants to actively contribute to the expansion of care services in rural areas and thus also support socio-political improvements. Well-functioning examples from Holland, Austria and Wallonia serve us to sharpen the focus of our activities and to work out political positions.

The challenges at the moment are lobbying with partner organizations (including governmental organizations), which are to be brought in to finance and support the branch organization.

We invite them to share their experiences with us directly in Galicia.

The original poster can be found on the following page.

Gründung der Branchenorganisation Green care Schweiz

Entwicklung der Dienstleistungen im Sektor Betreuungsleistungen in der Landwirtschaft

Ausgangslage: Aktuelle Studien und Kontakte mit Platzierungsorganisationen, welche im Care-Angebot inklusive, therapeutische, rehabilitative und pädagogische Funktionen erfüllen, belegen das wachsende Interesse an Betreuungsdienstleistungen im landwirtschaftlichen Umfeld. Dabei definiert sich die Qualität für die betreuten Personen besonders über den Lebens- und Familienzusammenhang sowie den Aktivitäten in und mit der Natur.

Die neue Branchenorganisation Green Care Schweiz soll die Vernetzung von Anbietern und Nachfragern im Betreuungssektor sicherstellen und zur Weiterentwicklung des Angebotes beitragen.

Herausforderungen:

- Lobbyarbeit mit verschiedenen Akteuren sozialer Angebote/Nachfragen (Kantonale Ämter, private und öffentliche Institutionen, private Organisationen)
- Durch die politische Struktur bedingte Unterschiede zwischen den Kantonen (soziale Dienste und Reglemente für das Entgelt)
- Finanzierung der Geschäftsstelle

Kontakt:
AGRIDEA – Simone Hunziker (simone.hunziker@agridea.ch),
Andrea Bory (andrea.bory@agridea.ch)

Nachfrage: Familienplatzierungsorganisationen (Caritas, LUB, Terra vecchia, ...), staatliche Organisationen (KESP, Wiedereingliederung, ..), Einzelpersonen

Qualitätsstandards, Beratung, Aus- und Weiterbildung, Diversifizierte Serviceleistungen, Ombudsstelle

Angebot: Bauernfamilien (Carefarming, Agriculture sociale), Betreuungsdienstleister mit naturgestützten Angeboten

5.- BIODIVERSITY. AGRIDEA

AGRIDEA

Conception of a training course on ¨Whole-farm biodiversity on farms¨

The federal government currently pays 410 million Swiss francs annually for the promotion of biodiversity in agricul-ture. Despite this, biodiversity in cultivated land is still declining.

Studies show that biodiversity on farms can be significantly improved through competent whole-farm biodiversity ad-vice. Mediation of knowledge promotes the acceptance of biodiversity among farmers and the motivation to work for it.

In order to successfully carry out on-farm biodiversity advisory services, advisors need agronomic and ecological knowledge, but also strong social skills. In Switzerland there are currently only a few people who combine these three competences.

The aim of the project is to design and implement a training course together with 6 pilot cantons. The training course is intended to enable advisors to carry out high-quality whole-farm biodiversity advices and thus achieve a positive impact on biodiversity in the field.

The training course consists of 5 theory days and 2 accompanied biodiversity consultations. To achieve the certificate of achievement, 3 consultations are carried out independently, which are assessed by experienced consultants. The conception will take place in 2022, the first implementation in 2023.

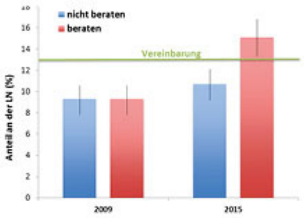
The quality of the course will be evaluated within the framework of scientific monitoring. The satisfaction of the parti-cipants of the course, the advised farmers and the effects on the services for biodiversity will be analysed.

The original poster can be found on the following page.

New course «Biodiversity advisory services for agricultural farms»

The federal government of agriculture currently pays CHF 410 million annually to promote biodiversity in agriculture. Nevertheless, biodiversity in cultivated land is declining.

Studies show that competent advice improves the effectiveness and quality of biodiversity promotion areas on farms. For this reason, AGRIDEA, Agrofutura and FiBL, together with six pilot cantons, are designing a new training course starting in 2023, which will enable extension workers to provide high-quality biodiversity advice for the whole farm and thus achieve a positive impact on biodiversity.



Farms that received advice planted more and higher quality biodiversity areas than farms that did not receive advice.

A scientific monitoring group evaluates the quality of the course. For this purpose, they analyse the satisfaction of the participants, the advised farmers and the effects on biodiversity.

Our vision

- Biodiversity advisory services in agriculture are of a high and uniform quality throughout Switzerland.
- Farms are always advised on biodiversity by competent biodiversity advisors in a goal-oriented and holistic manner.
- Thanks to high-quality advice, biodiversity contributions have a greater impact than in the past.
- The environmental goals of agriculture in the area of biodiversity are achieved and the ecological infrastructure is implemented.

Contact: corinne.zurbruegg@agridea.ch

In order to achieve the certificate of achievement, participants carry out three consultations independently, which are assessed by experienced counsellors (coaches).

The training course starts in 2023 and consists of five theory days and two accompanied biodiversity consultations. Most of the theory days take place in the field.

agridea
ENTWICKLUNG DER LANDWIRTSCHAFT UND DES LÄNDLICHEN RAUMS
DÉVELOPPEMENT DE L'AGRICULTURE ET DE L'ESPACE RURAL
SVILUPPO DELL'AGRICOLTURA E DELLE AREE RURALI
DEVELOPING AGRICULTURE AND RURAL AREAS

FiBL

AGROFUTURA
Agronomie · Ökologie · Ökonomie

6.- YPARD.

Author: Liga Cimermane, Latvia

YPARD and EUFRAS

Young Professionals for Agricultural Development, YPARD in partnership with the European Forum for Agricultural and Rural Advisories Services, EUFRAS, are launching a hybrid advisory training and mentorship program that is set to begin this September. The aim of the programme is supporting and equipping young advisory officers with the tools they need to remain in the profession. Advisory services is an important sector aiming to support food producers through providing solutions. We understand that rural advisory services have challenges which make it difficult for young advisors to stay the course–such as lack of mentoring and opportunities for career development, to name a few issues. In this program, young advisors will receive training and mentoring with a focus on sustainable and just food systems while ensuring competent, confident,and well-connected future and practicing officers. Through online seminars, workshops, mentoring and in-person meetings we will help bridge knowledge with practice and networks—all with the aim to ensure the rural advisory services not only for tomorrow but also for today.

The original poster can be found on the following page.

EUFRAS YEUFRAS-YPARD ypard

YOUNG ADVISORS MENTORSHIP AND TRAINING PROGRAM

What it is...

EUFRAS and YPARD have developed a mentorship program in which young advisors will be able to further develop their knowledge and skills advisory services.
Take the opportunity to further your career and build your network!

How it will work...

Online: 39 weeks (200 hrs) with webinars, workshops, working groups and more
In-person: 1 week (50hrs) with congresses, networking and site visits.

Benefits

Practising hard and soft skills can offer young advisory officers the tools to have an effective and rewarding career in extension and advisory services.

-CECRA basic certificate

Costs

1000 € for participant*
*This might change according to funding.

Deadline

Submit your application by July 1st 2022 to liga.cimermane@llkc.lv

The Program will start on September 2022

More information
valentina.martinez@ypard.net

7.- FOOD TRACKING. BULGARIA

National Agricultural Advisory Service

Bulgaria

Innovation through Digitalization

The poster presents one of the projects that NAAS is working on, namely: the project "Decentralised intelligent system for tracking the origin and the quality of produced agricultural products", funded under sub-measure 16.1 "Support for the formation and functioning of operational groups within EIP" within measure 16 "Cooperation" of the Bulgarian Rural Development Programme (RDP) 2014-2020 under European agricultural fund for rural development (EAFRD).

The aim of the project is to develop and implement an integrated system for process management in greenhouse producing cucumbers, enabling transparency of technological production processes and providing reliable/trustful/unchangeable/ unmanipulated/ immutability information to the customers about product cultivation (inputs used and product processing).

The main activities of the project are:

- Utilization survey and analyses of the attitudes of farmers and end-users' to use blockchain technology to track the origin and quality of produced goods;
- Development and implementation of the decentralized intelligent system for tracking the origin and quality of produced goods;
- Dissemination of project results to promote the benefits of use of the decentralized system and involving other greenhouse producers, as well as the use of the system in other sectors, in particular fruit producers;
- Promotion the benefits of the system to food consumers.

The project leads to improved visibility of the commodity supply chain by building trust between all actors: producer - trader/processor - consumer, i.e. through the system everyone can obtain transparent and reliable information about the origin and quality of their food.

The project is implemented by the Operational Group "Knowledge, Experience and Entrepreneurship". It involves representatives of science (the Agricultural University - Plovdiv, Famers (Mr. Victor Asenov and Opora Zaden Bulgaria Ltd. - greenhouse vegetable growing farms), and the National Agricultural Advisory Service, which provides farmers with free advisory services, up-to-date Bulgarian and useful information, training on various topics and technical assistance.

The original poster can be found on the following page:

Decentralised system for tracking the origin and the quality of produced agricultural products

by National Agricultural Advisory Service, Bulgaria

- Why is the use of a "Decentralised Traceability System for the origin and quality of manufactured goods" necessary?

- Consumers want to know where their food comes from, while retailers want to be sure of what they are selling

- **The system provides improved visibility of the food supply chain that builds trust between all actors: producer - trader / processor - consumer and is based on blockchain technology;**
- **The developed web-based system and mobile application (FOOD TRACEABILITY) allows the traceability of all products live through the supply chain via QR code;**
- **FOOD TRACEABILITY is a platform that allows each individual producer to enter data for each defined operation in the production of his product and to record the performance of operations in the production process of each batch of an individual product;**
- **The implementation of BLOCKCHAIN in the platform manages to collect secure and reliable data from harvest, storage and transportation to the end user;**
- **The mission of FOOD TRACEABILITY is to build LASTING TRUST in food system using an accessible platform for transparent and reliable information on origin, transportation and food quality;**

- **„Decentralised system for tracking the origin and the quality of produced agricultural products" is developed by EIP-AGRI operational group funded under sub-measure 16.1 "Support for the formation and functioning of operational groups within EIP", measure 16 "Cooperation" of the Bulgarian Rural Development Programme (RDP) 2014-2020 under European Agricultural Fund for Rural Development (EAFRD).**

Project type: Operational group
Starting date: 2020
End date: 2023

8.- EIP. MOUNTAIN DAIRY PROJECT

Author: Elisabeth Reith
elisabeth.reith@lk-stmk.at
LWK. Austria

In the mountainous regions of Austria, about 40% of dairy farms, mostly small farms in disadvantaged areas, still practise a form of husbandry consisting of grazing, outdoor exercise and temporary tethering.In order to give these farms a perspective for the future, an EIP project "Mountain dairy cattle" was set up for a period of 3 years. and subsequently developed and prepared structural solutions for these dairy farms.

The aim of the project is to document economically viable and sustainable construction solutions for smaller dairy farms with difficult external conditions. and to develop them further.Different housing systems and their potential for improving the type of housing were examined and compared. As one result among many, the "free stall barn" should be mentioned, which can be considered a solution for many smaller farms.

With the help of the "FarmLife-Welfare Index", the housing conditions, animal care and management as well as animal-related indicators were examined on the farms.

The farms and their stall construction measures were subjected to a business management analysis in order to shed more light on the effects of the investment. An important indicator was the factor "working time per cow/year" before and after the construction measure.

The evaluation of sustainability was carried out in the impact category "greenhouse gas potential" and was used as the most meaningful parameter for assessing the farms.

The original poster can be found on the following page.

Barn construction solution on the mountain

EIP BERGMILCHVIEHPROJEKT

EIP Projekt Berg-Milchvieh 2019-2022

BARN CONSTRUCTION

The aim of the project is to document economically viable and sustainable construction solutions for smaller dairy farms with difficult external conditions. and to develop them further.

Different housing systems and their potential for improving the type of housing were examined and compared.

As one result among many, the „free stall barn" should be mentioned, which can be considered a solution for many smaller farms.

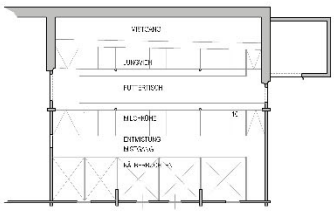
Extreme courtyard - at the foot of the Großglockner

BUSINESS ADMINISTRATION & SUSTAINABILITY

The farms and their stall construction measures were subjected to a business management analysis in order to shed more light on the effects of the investment. An important indicator was the factor „working time per cow/year" before and after the construction measure.

Barn extension with run

Ground plan - before construction work



Ground plan - after construction work

Outlet at over 1.500m above sea level

Outlet with lounger area

GENERAL

In the mountainous regions of Austria, about 40% of dairy farms, mostly small farms in disadvantaged areas, still practise a form of husbandry consisting of grazing, outdoor exercise and temporary tethering.

In order to give these farms a perspective for the future, an EIP project „Mountain dairy cattle" was set up for a period of 3 years.

and subsequently developed and prepared structural solutions for these dairy farms.

Simple milking parlour

With the help of the „FarmLife-Welfare Index", the housing conditions, animal care and management as well as animal-related indicators were examined on the farms.

The evaluation of sustainability was carried out in the impact category „greenhouse gas potential" and was used as the most meaningful parameter for assessing the farms.

Res... is from the EIP project Berg Milchvieh (data collection in years 2020-2021). "The project was financially supported by the European Agricultural Fund for Rural Development (ELER) and by the Austrian Programme for Rural Development 2014 to 2020 (LE 14-20) of the Federal Ministry of Agriculture, Regions and Tourism. See the Office for more information."

RAUMBERG GUMPENSTEIN RESEARCH & DEVELOPMENT

HBLFA Raumberg-Gumpenstein Landwirtschaft

In Kooperation mit

Mit Unterstützung von Bund, Ländern und Europäischer Union

LE 14-20

9.- EIP. DIGITALIZATION CLUSTER

New Digital Tool for Agricultural Consulting

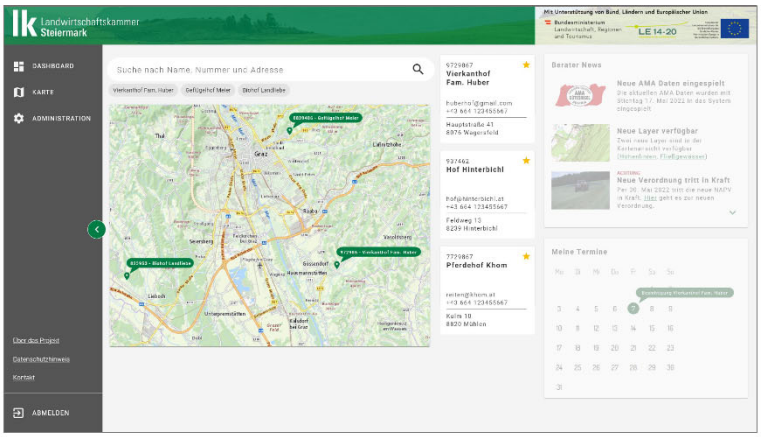
Author: Elisabeth Reith
elisabeth.reith@lk-stmk.at
LWK. Austria

The correct interpretation of regularly changing requirements and conditions for financial compensations and for the use of plant protection products poses a huge challenge for agricultural businesses. The Austrian Chambers of Agriculture have an importantrole in supporting and advising the Austrian farmers and are therefore constantly endeavored to improve their services. To improve the support efficiency, new digital tools are to be developed. As a solid foundation for forthcoming features, the Austrian Chambers of Agriculture are developing a basic GIS application (geo-information system) within the scope of an EU project in this year. The aim of the application is to combine the available data of agricultural businesses including their fields with othergeographic information and maps, to improve support efficiency by centralizing different data sources. A connection to the TerraZo application by the Francisco Josephinum Wieselburg allows the analysis of vegetative development on fields using satellite imagery provided by the ESA's (European Space Agency) Copernicus programme followed by the import of recommended site-specific fertilization maps. Basic measuring tools and an easy switch between different maps and layers round off the first version of the LK-GIS application. In parallel to the software development, the project team performs a feasibility analysis on the implementation of complex regulations on financial compensations or the use of plant protection products into the GIS application. The mainproject partners are the Austrian Chambers of Agriculture, the research organization Josephinum Research at the Francisco Josephinum Wieselburg, the Austrian Agency for Health and Food Safety (AGES) and the Agricultural Research and Education Centre Raumberg-Gumpenstein.

The original poster can be found on the following page.

Digitale Anwendung zur Unterstützung der Beratung in der Landwirtschaft in Österreich

New Digital Tool for Agricultural Consulting in Austria



Projektziel

Mit einem eigenen GIS-System der Landwirtschaftskammern (LK-GIS) sollen durch Bündelung diverser Datenquellen Beratungstätigkeiten effizienter gestaltet und ein Fundament für laufend neue Funktionen in einem kartenbasierten Tool geschaffen werden. Zentraler Datenkern sind die landwirtschaftlichen Betriebe und ihre bewirtschafteten Flächen.

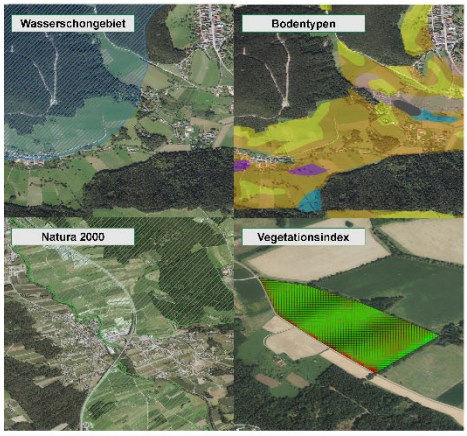
Project goal

The new GIS-system (LK-GIS) of the Austrian Chamber of Agriculture shall improve support efficiency by centralizing different data sources. As new fundamental tool it serves as a basis for constantly added new features in the future. Information about agricultural businesses including their fields represent the main data basis for the application.

Layer und Funktionen

Diverse Kartenlayer können eingeblendet oder miteinander kombiniert werden. Beispiele sind hydrologische Karten (Oberflächengewässer, Grundwasser Schutz- und Schongebiete), topographische Karten, Bodenkarten, Naturschutzkarten und Vegetationsindex-Karten (basierend auf Sentinel-2 Satellitendaten).

Für die Weiterentwicklung nach der gegenwärtigen Prototyp-Phase sind folgende Funktionen in Planung: Notizfunktion, Datenanbindung an bestehende Operativsysteme, Anzeige von individuell geltenden Auflagen und Hinweise auf verwendbare Pflanzenschutzmittel.



Layers and Features

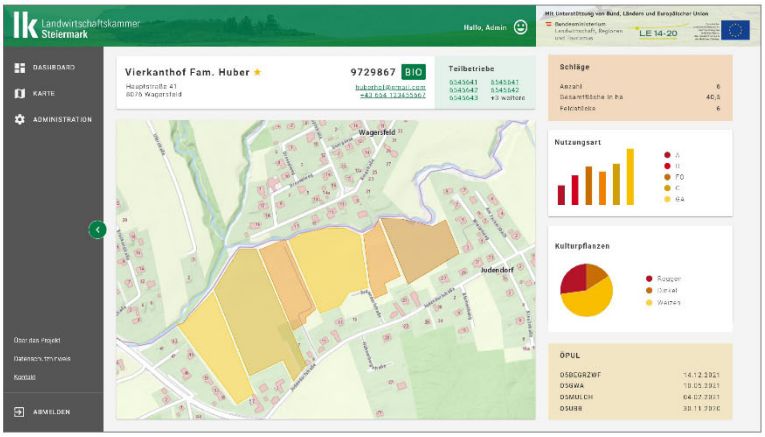
Various map layers can be combined or shown separately. Examples include hydrological maps (surface waters, groundwaters and protected areas), topographical maps, soil maps, nature reserve maps and vegetation-index maps (based on Sentinel-2 satellite data).

After the current prototype phase the following features are planned for the subsequent developing phase: note function, data link to existing operational systems, display of individually applicable regulations, display of advices about applicable plant protection products.

Betriebsinformationen

Die Detailanzeige eines Betriebes umfasst wesentliche Kennzahlen zu den bewirtschafteten Flächen und Informationen zu Förderungen.

Darüber hinaus werden auf einzelnen Unterseiten alle bekannten Details strukturiert angezeigt sowie für jedes Feld die Fruchtfolge der letzten sieben Jahre ermittelt.



Business information

The detail view of an agricultural business shows important key figures and information about grants.

All further business information are shown on the respective subpages. For each field, the crop rotation of the last seven years gets identified and displayed on the according detail page.

Landwirtschaftskammer Österreich

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Mit Unterstützung von Bund, Ländern und Europäischer Union
Bundesministerium Landwirtschaft, Regionen und Tourismus
LE 14-20

10.- FORVALUE PROJECT

Innovative management for the valorization and resilience of the forest landscape: Project FORVALUE

Authors: Loureiro Veira, X., Fernández Filgueira, C., Corbelle-Rico, E., Aboal Viñas, J., Alves, R., Caldas, B., Chaves, A., Covelo Míguez, X., Dans del Valle, F., Fernández López, M.M., López López, O., López Luaces, M., Alonso, J.M., Marey-Pérez, M.F., Nogueira, A., Nogueira, J.

Forest fires are a major environmental problem in the Galicia-North Portugal Euroregion, causing, in addition to a strong ecological impact, damage to other assets and resources of strategic importance. Reducing the incidence and intensity of fires is essential to curb the environmental and patrimonial degradation they represent in this territory, considering their economic and social dimension. The FORVALUE project aims to increase the resilience of the territory to the risk of forest fires through the promotion of innovative management models in the cross-border area (Spain-Portugal) that generate economic activity. In addition, given the fragmentation of ownership in this territory, it is critical to promote the implementation of associative formulas for forest property management. The aim is to promote an innovative intervention strategy in a territory with an international scope, but with very similar problems. For this, it is also necessary to have common ICT tools that allow a correct management of these transboundary areas. This contribution describes the working methodology being used and the difficulties encountered in improving transnational planning. This information could be useful in other regions with similar problems.

The original poster can be found on the following page.

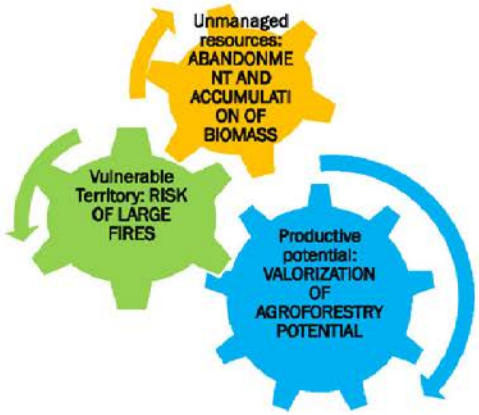
Interreg
España - Portugal
Fondo Europeo de Desarrollo Regional
Fundo Europeu de Desenvolvimento Regional

Innovative management for the valorization and resilience of forest space

forvalue

https://forvalue.eu/

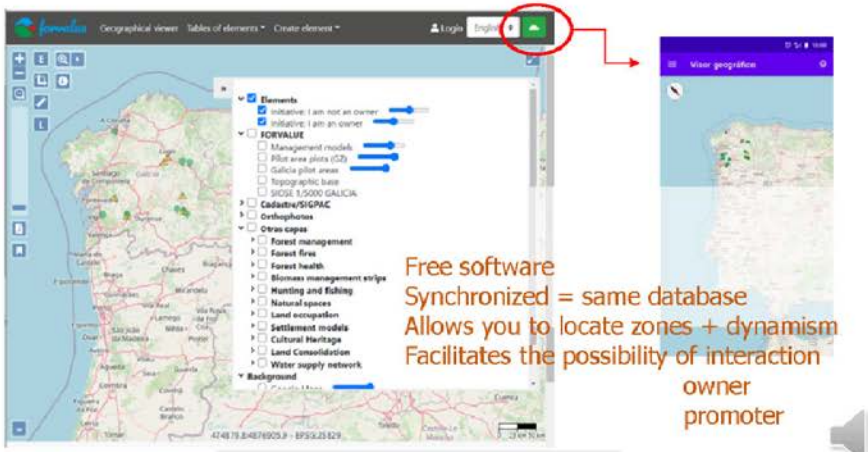
XUNTA DE GALICIA | CONSELLERÍA DO MEDIO RURAL
XUNTA DE GALICIA | CONSELLERÍA DE MEDIO AMBIENTE, TERRITORIO E VIVENDA
AXENCIA GALEGA DA CALIDADE ALIMENTARIA
INSTITUTO DE ESTUDOS DO TERRITORIO
forestis
cim alto minho
USC
AFG
ipvc Instituto Politécnico de Viana do Castelo



Innovative forest management models	Inventory of good practices and success stories of multifunctional forest management for resilience Definition and selection of innovative forest management models adapted to local conditions Transboundary catalogue of innovative forest management models
Implementation of associative formulas for the management of forest property	7 pilot áreas Selection of the innovative model of forest management and valorization appropriate for each pilot area of the project (development of SWOT s in each of the municipalities) Delimitation of the areas for the implementation of forest management models Implementation of pilot area co-management initiatives
Transboundary coordination tools for forest planning and management.	Implementation of a GIS-web platform with the Forest Information System (SIForesT) #COIForesT Protocol for the coordination of transboundary management of forest area

Management and coordination

Communication and dissemination



https://forvalue.laborate.eu/

11.- I2CONNECT

Competition for best practical case in innovation support across Europe

We are looking for agriculture and forestry advisers with a success story to share!

Times are changing! All across Europe, the farm and forestry enterprises are facing major social, economic, and environmental challenges – as well as unprecedented opportunities. Innovation is a key factor in continual adaptation to these various and sometimes contradictory challenges, and in taking advantage of new opportunities.

In i2connect we are building upon existing knowledge and practical cases regarding the role of advisors in interactive innovation and currently launching a contest with the aim of seeking-out innovative, inspiring and interactive initiatives from within the agriculture and forestry sectors.

We are particularly interested in partnerships that bring together diverse expertise from collaborating partners with different backgrounds.

We assume you are ready to provide sufficient description of your case and some really good photos to illustrate your practice!

What are the benefits?

- All submitted cases will be available on i2connect website for international recognition.
- The applicants will benefit from the i2connect networking opportunities and personalized promotional material to use for future engagement.
- The competition winner will be invited to participate in the cross visits organized by i2connect for assessing inspirational examples from other countries and network with other like-minded advisors across Europe!
- Don`t miss your chance to showcase your project and help us in the process of expanding and strengthening advisory networks across Europe and increasing the awareness of different groups of stakeholders regarding the usefulness and necessity of professional innovation support!

The original poster can be found on the following page.

i2connect
INTERACTIVE INNOVATION

COMPETITION FOR

BEST PRACTICAL CASE IN INNOVATION SUPPORT ACROSS EUROPE

We are looking for agriculture and forestry advisers with a success story to share!

Times are changing!
All across Europe, the farm and forestry enterprises are facing major social, economic, and environmental challenges, as well as unprecedented opportunities. Innovation is a key factor in continual adaptation to these various and sometimes contradictory challenges, and in taking advantage of new opportunities.

3 things to keep in mind

1. We are building upon existing knowledge and practical cases regarding the role of advisors in interactive innovation, and currently launching a contest with the aim of seeking-out innovative, inspiring and interactive initiatives from within the agriculture and forestry sectors
2. We are particularly interested in partnerships that bring together diverse expertise from collaborating partners with different backgrounds
3. We assume you are ready to provide sufficient description of your case and some really good photos to illustrate your practice!

3 benefits to keep in heart

1. All submitted cases will be available on i2connect website for international recognition
2. The applicants will benefit from the i2connect networking opportunities and personalized promotional material to use for future engagement
3. The competition winner will be invited to participate in the cross visits organized by i2connect for assessing inspirational examples from other countries and network with other like-minded advisors across Europe!

Don't miss your chance to showcase your project and help us in the process of expanding and strengthening advisory networks across Europe and increasing the awareness of different groups of stakeholders regarding the usefulness and necessity of professional innovation support!

About the project

SCAN ME

Submit your practical case

SCAN ME

What is interactive innovation?

Interactive innovation **emphasizes cooperation among various actors**, the sharing of knowledge and effective intermediation between actors along the value chains and at different territorial levels.

Key for interactive innovation is that existing knowledge is included, meaning end-users and practitioners are not only involved as study objects, but also their entrepreneurial skills and practical knowledge are used for developing a solution or opportunity, thereby creating co-ownership.

i2connect

THIS PROJECT HAS RECEIVED FUNDING FROM THE EUROPEAN UNION'S HORIZON 2020 RESEARCH AND INNOVATION PROGRAMME UNDER GRANT AGREEMENT N. 863039

Contact information
Linda Sarķe-Fedjajeva
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Youtube LinkedIn Twitter Facebook

12.- IDB2 PROJECT

"Interaktive Deckungsbeiträge und Kalkulationsdaten"
¨ Interactive contribution margins and costing data¨

Simulation group: K. Heinschink, G. Gahleitner, S. Linder, R. Maria, T. Skidmore (BAB); F. Hunger (LK Upper Austria), G. Biedermann (LK Lower Austria) K. Heinschink, G. Gahleitner, S. Linder, R. Maria, T. Skidmore (BAB); F. Hunger (LK Upper Austria), G. Biedermann (LK Lower Austria)

The "Interaktive Deckungsbeiträge und Kalkulationsdaten" (IDB) is a comprehensive data collection and internet based application for determining contribution margins for agricultural production processes (market crops, fodder production, animal husbandry and viticulture). The application can take into account various production requirements (e.g. climate) and management decisions (e.g. farming methods). The calculations are preset with average values and can be adjusted by overwriting them with your own values (e.g. to depict the production of an individual company).

As a sub-project of the EIP project "Income Stabilization", the IDB application was re-written, updated and enhanced, the user interface was improved and new data evaluation options were added (e.g. crop rotation, scenarios).

Structure, content and scope:

The IDB project is conceptually divided into two parts, the IDB database and the IDB application. The IDB application is freely accessible on the Internet and contains a comprehensive data collection and contribution margin calculations for a large number of agricultural production processes. IDB database and IDB application are continuously updated and maintained.

Target groups, areas of application:

The IDB is a support tool for farm management and consultancy, education, science and other fields of activity dealing with economic calculations for agricultural activities. The IDB enables a comparison of the competitiveness of crops, crop rotation planning and a presentation of contribution margin developments for crop production and animal husbandry processes over several years and for different scenarios. By overwriting default average values, you can make your own customized calculations and observations, not only at the process level, but also at the company or sector level.

Data: sources, quality, processing:

The IDB process real historical data, forecast data and assumptions from various sources, including Agrarmarkt Austria, Statistics Austria, Trade organizations, Austrian Institute for Economic Research and expert information (e.g. Chamber of Agriculture, producer groups, beet farmers' association, Bio Austria and other federal institutions). Link: https://idb.agrarforschung.at/

The original poster can be found on the following page.

Interaktive Deckungsbeiträge und Kalkulationsdaten (IDB2)

Karin Heinschink[1], Gerhard Gahleitner[1], Siegbert Linder[1], Richard Maria[1],
Thomas Skidmore[1], **Franz Hunger**[2], Gerald Biedermann[3]
[1]BAB, [2]LK Oberösterreich, [3]LK Niederösterreich

Bundesanstalt für Agrarwirtschaft und Bergbauernfragen

Landwirtschaftskammer Oberösterreich

Landwirtschaftskammer Niederösterreich

Link zu IDB2: idb2.agrarforschung.at

Was sind die interaktiven Deckungsbeiträge und Kalkulationsdaten (IDB2)


Foto: Franz Hunger, LK OÖ

- Die „Interaktiven Deckungsbeiträge und Kalkulationsdaten" (IDB) sind eine umfassende Datensammlung und frei zugängliche Internet-Anwendung zur Ermittlung von Deckungsbeiträgen für landwirtschaftliche Produktionsverfahren (Marktfruchtbau, Futterbau, Tierhaltung, Weinbau).
- Verschiedene Produktionsvoraussetzungen (z.B. Klima) und Managemententscheidungen (konventionell, biologisch) werden berücksichtigt.
- Die Kalkulationen sind mit Durchschnittswerten aus Datenbanken vorbelegt und können durch Überschreiben angepasst werden, z.B. um betriebsindividuelle Deckungsbeiträge abzubilden.
- Die IDB wurden substantiell weiterentwickelt: auf den neuesten Stand gebracht, die Benutzeroberfläche verbessert und neue Auswertungsmöglichkeiten (z.B. Fruchtfolge, Szenarien) ergänzt.

Anwendungshighlights

- **Alle Verfahren und Schnellauswahl:** Aus der Liste aller verfügbaren biologischen und konventionellen Verfahren können mehrere angehakt und auf einmal gespeichert werden.
- **Grundeinstellungen:** können für alle Verfahren festgelegt werden (z.B. inkl./exkl. MwSt., Hauptproduktionsgebiet, Düngerpreise, Maschinengänge).
- **Gespeicherte Verfahren:** können auf der Übersichtsseite und im Einzelverfahren jederzeit hinzugefügt, bearbeitet, kopiert oder gelöscht werden.
- **Fruchtfolge-Deckungsbeiträge:** können für Marktfruchtbauverfahren berechnet werden.
- **Szenarien:** Für Fruchtfolgedeckungsbeiträge werden mittels erwarteter Erträge und Preise Deckungsbeiträge für „Best Case"- und „Worst Case"-Szenarien ermittelt.
- **Ergebnistabellen:** können heruntergeladen, gespeichert und in Tabellenkalkulationsprogrammen weiter bearbeitet werden.

Zielgruppen

Die IDB2 sind als Unterstützung für die landwirtschaftliche Betriebs-führung und Beratung, Bildung, Wissenschaft und andere Tätigkeits-bereiche konzipiert, die sich mit Wirtschaftlichkeitsberechnungen für landwirtschaftliche Aktivitäten auseinandersetzen.

Anwendungsbereiche

- individuelle Deckungsbeitragskalkulationen auf Basis von Vorbelegswerten und eigenen Werten
- Vergleich der Wettbewerbsfähigkeit pflanzlicher Kulturen
- Fruchtfolgeplanung
- Deckungsbeitragsentwicklung über mehrere Jahre, für Szenarien

Daten: Quellen, Qualität

Die IDB verarbeiten Echtdaten, Prognosedaten und Annahmen aus verschiedenen Quellen, u.a.: Agrarmarkt Austria, Statistik Austria, Handel, Österreichisches Institut für Wirtschaftsforschung, Expert:innen-Informationen (z.B. Landwirtschaftskammern, Erzeuger:innengemeinschaften, Rübenbauernbund, Bio Austria, Bundesanstalten).

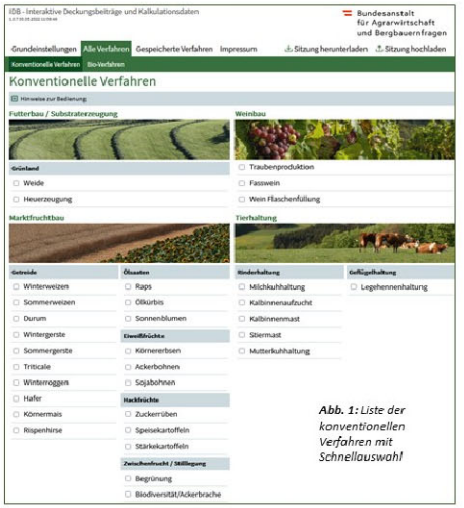


Abb. 1: Liste der konventionellen Verfahren mit Schnellauswahl

Poster presented at the 61st IALB Conference, 21-25 June 2022 in Lugo, Galicia, Spain of the topic: Useful tools, applications and methodologies for advisory work.

Kontakt: *franzgeorg.hunger@lk-ooe.at* [2]

Mit Unterstützung von Bund, Ländern und Europäischer Union
Bundesministerium Landwirtschaft, Regionen und Tourismus
LE 14-20

13.- ASSOCIATION OF GALICIAN RURAL ADVISORS

The advisor’s vision:

The current situation of consultancy in Galicia faces, on the one hand, threats and weaknesses as in any other place. Some of the weaknesses are the scarce digitalization of advisors and advised; an excess of bureaucracy at the time of working with administrations; and lack of teamwork among advisors. Another threat is at governmental level, the lack of organization with advisors. On the other hand, rural advisors in Galicia enjoy a good relationship with clients and more of a network among advisors, such as the Association of Rural Advisors of Galicia.

The biggest challenge for the advisors, for the future, is the dixitalization. For this, they intend to obtain more digital training for farmers in addition to the advisors. They also support the creation of a platform to unite the various actors of the advising, in a digital environment.

As another important challenge for advisors is collaboration and coordination, they also have concrete solutions. An annual advisor's calendar will be established to avoid seasonal problems. In addition, twice a year we have convened Collaboration Days, where members of the various teams of advisors come together to communicate their ideas for the best and to work together.

The original poster can be found on the following page.

ASOCIACIÓN DE ASESORES RURAIS DE GALICIA

NUEVO MODELO DE ASESORAMIENTO RURAL PARA GALICIA

visión del asesor

1 PROBLEMA
SITUACIÓN ACTUAL DEL ASESORAMIENTO

DEBILIDADES	FORTALEZAS
Escasa digitalización agricultores/asesores Excesiva burocratización de las relaciones con la administración Poca colaboración entre los distintos asesores Limitado tiempo de dedicación a los clientes en campo Poco tempo para la formación y trabajos colaborativos	Cercanía y confianza con los clientes Experiencia en el asesoramiento Capacitación(titulación y cursos) Capacidad de aprendizaje Importantes redes de contactos sociales Logística de los asesores en el rural Unión de fuerza e intereses con la pertenencia a la ASOCIACIÓN DE ASESORES RURAIS DE GALICIA
AMENAZAS	**OPORTUNIDADES**
Excesiva burocracia Falta de coordinación administración-asesores/ administración-administración Poca valoración de los asesores por parte de la administración, en áreas con escasos servicios y población. Falta de contar con la opinión de los asesores de campo en la elaboración de los planes de desarrollo. Falta de planificación a medio y largo plazo/Calendarios no realistas Falta de formación e información de los agricultores sobre normativas...	Políticas de la UE en las que se valoran los servicios de asesoramiento Reto del cambio climático Reto demográfico Reto de la optimización del trabajo en el rural mediante la digitalización Nueva PAC/PDR Profesionalización del Asesor Rural Transmisión de conocimientos (digitalización, app, requerimientos legales y administrativos...)

2. OBJETIVOS
VISIÓN DE FUTURO DEL ASESORAMIENTO

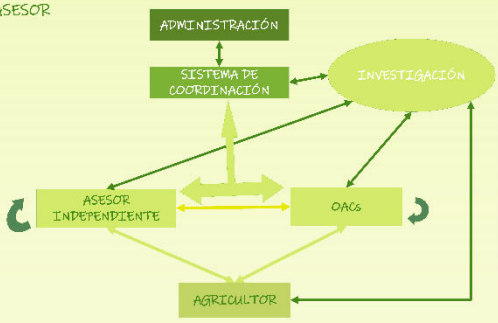
RETOS CON LOS QUE NOS ENFRENTAREMOS
Digitalización Coordinación administración asesoramiento público-privado Investigación Colaboración Simbiosis asesoramiento público-privado

3 CONCLUSIÓN
PROPUESTAS DE CARA A MEJORAR /AFRONTAR LOS RETOS DE FUTURO

PIGITALIZACIÓN	COORDINACIÓN	INVESTIGACIÓN	COLABORACIÓN	SIMBIOSIS ASESORAMIENTO PÚBLICO PRIVADO
Ayudas para la digitalización de entidades/ agricultores: contratación de apoyo. Formación e información sobre digitalización (APP, TICs, plataforma, modelos digitales)...para agricultores, asesores y OACs. Creación de una PLATAFORMA (por asesor, por productor...) donde las distintas ADAs (actuaciones de asesoramiento: entidades de asesoramiento, controles, ADSG, certificaciones, otras actuaciones....) puedan digitalizar su actuación (si lo precisan, para justificación...) El agente de la OAC tendrá acceso a esas ADAs.	Creación de un sistema de coordinación (SICO), el cual organiza mayoritariamente el estrato ASESOR-OAC. En los proyectos(públicos o propuestas privadas) habrá grupos de trabajo: DEBATE, COORDINACIÓN, COOPERACIÓN, CONSENSO, FEED_BACK. . En los SICOS se coordinarán y participarán los ASESORES y OCAs. Se instaurará un CALENDARIO ANUAL DEL ASESOR donde se refleja el trabajo a realizar. Todo encaminado a evitar las catástrofes TEMPORALES (solapamiento de trabajos realizados por el asesor).	El sistema de coordinación comunicara los temas de investigación de interese para los asesores (comunicación por la PLATAFORMA). Bonificará las entidades que cooperen en investigación. La formación e información seguirá el CALENDARIO ANUAL DEL ASESOR.	Dos veces al año se convocarán unas JORNADAS DE COLABORACIÓN, donde cada uno de los estratos SICO-ASESOR-OAC expresan: mejoras, propuestas, ideas, tutoriales, programas autodidactas de distintas gestiones, ideas de digitalización,... La ASOCIACIÓN DE ASESORES RURAIS DE GALICIA, actuará como mediadora de las jornadas, aportando nuestra experiencia a pie de explotación. Se bonificará a las entidades que colaboren.	Creación del LIBRO DE VISITAS (normalizado) donde los distintos asesores anotarán su intervención Habilitar una PLATAFORMA donde los distintos asesores colgaran de forma digital la justificación de su actuación (si lo precisan)...mediante fotos, documentos, ...

PLATAFORMA
LIBRO DE VISITAS
JORNADAS DE COLABORACIÓN
SICO
CALENDARIO ANUAL DEL ASESOR

PUESTA EN VALOR DE NUESTRO TRABAJO
ACOMPAÑAMIENTO EN LOS RETOS DE FUTURO
IMPORTANTE DE CARA A:



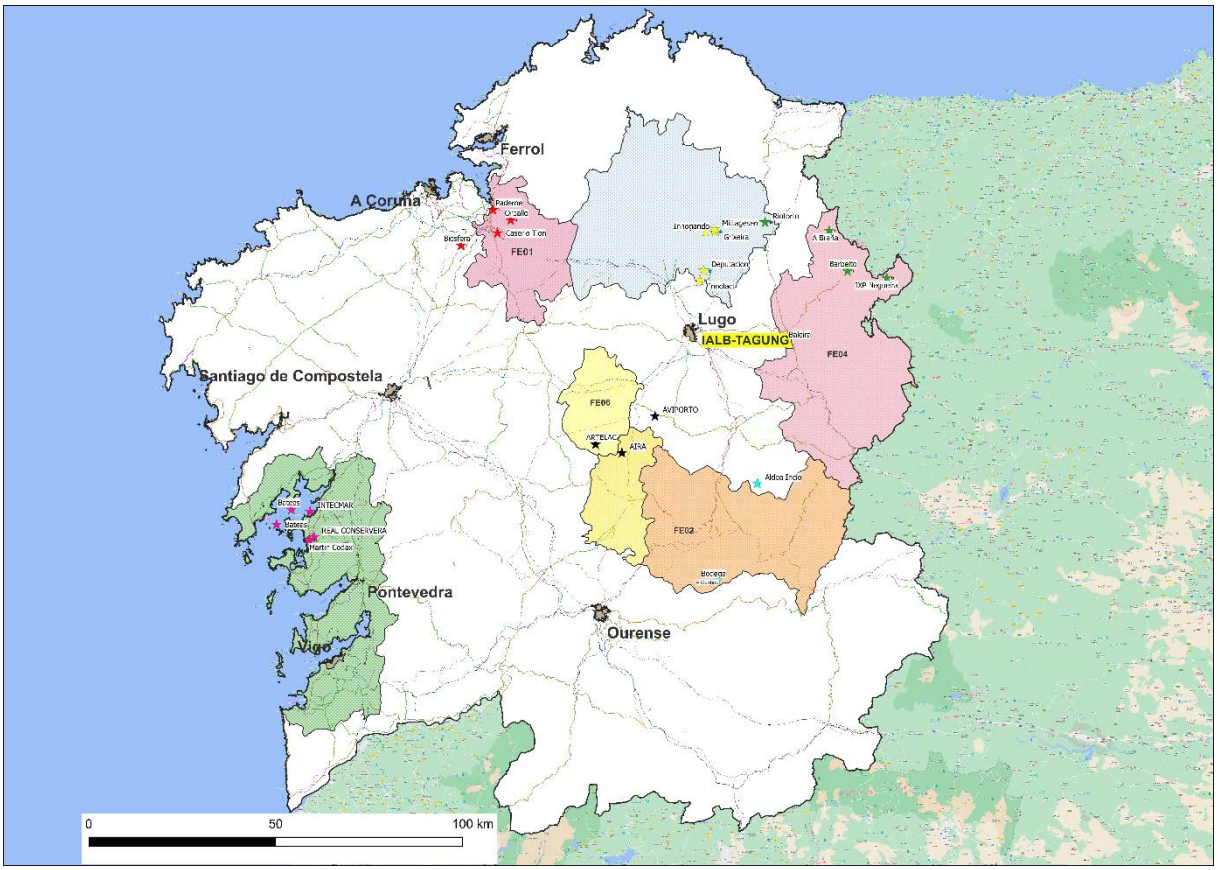
Asociación de Asesores Rurais de Galicia <asesoresruraisgalicia@gmail.com>

61º IALB|11º EUFRAS|8º SEASN INTERNATIONAL CONGRESS 2022 GALICIA

The path to knowledge and innovation transfer through extension to sustainable rural development

PROFESSIONAL EXCURSIONS

Galicia, 23 June 2022



INTERNATIONAL CONGRESS OF RURAL EUROPEAN AREAS

21-25/06/2022 LUGO (Galicia)

TABLE OF CONTENTS

PROFESSIONAL EXCURSIONS: DESCRIPTION OF VISITS

In this section, dedicated to the Professional Excursions carried out on Thursday, 23 June, the different routes are listed, detailing the visits made. To create the list of excursions, diverse agriculture and livestock operations were selected, as well as processing industries, public facilities, cooperatives, rural development groups, public institutions, among other types of initiatives which one way or another stand out for their innovation and their special contribution to the development of the Galician rural environment.

On the one hand, the goal was to include practically all of the Autonomous Community of Galicia, and on the other hand, to give visitors a glimpse at a wide variety of primary sector operations. Six routes were programmed, so that each participant could choose the route most interesting to them, and also in accordance with the languages that the route was available in. 200 attendees partook in these excursions

All of the routes had the same time table: leaving Lugo by bus at 8:30 in the morning and returning around 19:30 at the departure point.

The planning of the six routes followed the criteria of having small, manageable groups, based on registries. In the end, of the six original routes, only five were actually carried out, with the following distribution of participants:

ROUTE	NAME	LANGUAGES	# PARTICIPANTS
1	AS MARIÑAS	Spanish/German	36
2	LANDS of LEMOS	Spanish /English	50
3	RÍAS BAIXAS	Spanish / English	48
4	LUGO'S MOUNTAINS	Spanish / German	39
5	TERRA CHA	Spanish / English	22
6	A ULLOA	Spanish / English	--
		TOTAL	195

Below are the different routes that were programmed, including a brief description of each as a whole, plus details about the visits that were made and some photos of the activities.

1.- ROUTE 01 AS MARIÑAS

Trip Coordinator

Jorge Blanco Ballón
Manager of do GDR
"As Mariñas de Betanzos"

Trip Moderator

Florentino Díaz Rodríguez
USC

We checked the running of a Rural Development Group (GDR) managed by the LEADER program, aligned with the objectives of a UNESCO Biosphere Reserve.

1.1.- VISIT 1: GDR "AS MARIÑAS DE BETANZOS"

The Association of Rural Development ¨Mariñas-Betanzos¨ was founded in July 2008 as a Group of Rural Development with the goal of being the heart of integration and representation of different territorial agents, social and economic institutions, public as well as private, interested in promoting the development of territory in action.
The Association has a preferential field of action in the municipalities of Abegondo, Aranga, Arteixo, Bergondo, Betanzos, Cambre, Carral, Coirós, Curtis, Culleredo, Miño, Irixoa, Oleiros, Oza-Cesuras, Paderne, Sada and Sobrado (A Coruña) although they are not against being able to amplify the zone for the operational needs of their programs and activities.

The strategy for development conceived by the Association has the final objective of valuing the territory, concentrating on the improvement of the local population's quality of life through the appreciation of its natural and cultural heritage, as well as the promotion of social cohesion.
Since 2013 Association of Rural Development Mariñas-Betanzos, has been managing entity of the Biosphere Reserve of "Mariñas Coruñesas y Terras do Mandeo" (Mariñas in Coruña and Lands of the Mandeo.)

The Biosphere Reserve "Mariñas Coruñesas y Terras do Mandeo" (Mariñas in Coruña and Lands of the Mandeo) covers a total of 116,724 hectares (113.969.7 land hectares and 2.754.6 sea hectares), which represent 14.33% of the surface of the province of A Coruña, distributed in 17 municipalities. With this surface area, it is the second largest Biosphere Reserve in Galicia in terms of surface area, and the largest in the province of A Coruña.

1.2.- VISIT 2: SEITURA

Mónica Malvar grew up in a rural environment in Ourense, where she participated in the traditional practices of family agriculture. She studied graphic design, working in marketing, advertising, and publishing firms.

In 2016 she started her agricultural training which would lead her to study the Integrated Program for BIO-entrepreneurs, in the Course of Agrarian Business Aptitudes which led to her integration in the activity as well as other training courses specialized in horticulture and fruit growing.

It was then that she decided to buy a house and its annex in the parish of Vilamourel, in Paderne, with the goal of dedicating herself professionally to ecological agriculture.

Her operation is certified by the Regulator Board of Ecological Agriculture in Galicia (CRAEGA) for the production of vegetable gardens and orchards (operation number with CRAEGA GA/03118/PV) additionally producing traditional poultry with the Galician chicken breed called Mos, in order to diversify production.
She manages 1.7 hectares in production, the majority with outdoor crops, but also with a greenhouse of 600 m^2

The main values that Monica wishes to instill in her project are: integrity; responsibility; respect towards health; personal and social development; quality and customer service; innovation; promotion of biodiversity. Her main customers are nearby ecological businesses, consumer groups, restaurants, and sales directly to the consumer.

1.3.- VISIT 3: CAGIAO CHEESE FACTORY

Cagiao Cheese Factory is a family business located in Medín (Vilamourel, Paderne) that combines dairy cattle production with cheesemaking. The number of cows on the farm is around 200, with 103 hectares for producing fodder. Currently 11 people are employed here, producing different types of cheese, always with milk from the farm itself.

The annual production is around 130,000 kg of cheese, of which 70% is fresh cheese and 30% is mature cheese.

The majority of the distribution is done directly by the company, except in more remote areas in the province of Ourense and in Ponferrada (León) where they rely on a distributer. Their main customers are small businesses in the region of Betanzos, the city of Coruña, the city of Lugo, the coast of Lugo, the city of Ourense, Ferrol, and Santiago de Compostela.

1.4.- VISIT 4: BODEGA BEADE (WINERY)

The region of Betanzos is one of the areas with the most wine-making tradition in Galicia, and José Antonio Beade and his family are one of the few winemakers who have been able to keep this tradition to the present day, which will continue in the generations to come.
"We make table wine, and the creation of a Geographically Protected Indication of Wine in the Land of Betanzos around the year 2000 came to represent a huge boost for us and in general for all the traditional winemakers, favoring the modernization of our small, traditional wineries. It also meant having to replant with quality grape varieties, improving the vine cultivation, the treatments, even the fermentation with more modern techniques."

"Our challenge is that the consumer approaches our wines out of curiosity. They're new, fresh wines that don't hide their origin, because through the wine we can identify characteristics of our soil and climate."

"Years ago, before replanting with quality grape varieties, wine from Betanzos didn't have a very good reputation, but more and more people are discovering its potential and the quality that we have...it's certainly not like it was before!"

Currently, the majority of the winery's operations are in the hands of José Bouzón Beade, a third-generation oenologist from Casa Beade.
The products which they offer under the brand of the Biosphere Reserve of "Mariñas Coruñesas y Terras do Mandeo" (Mariñas in Coruña and Lands of the Mandeo) are:

- *Costas del ejército*: Branco Lexítimo (Galician white grape variety)
- *Ribeiras de Armea* : Branco Lexítimo, Godello and Agudelo (3 Galician white grape varieties)

1.5.- VISIT 5: ORBALLO

Orballo emerged in 2012 as a social innovation project in rural Galicia, with the goal of producing aromatic and ecological plants to sell in dehydrated form, and parallelly, contributing to the reforestation through native trees such as chestnuts, walnuts, and hazelnuts.

This business, located in the municipality of Paderne, has expanded its production in the recent years to a menu of eco-rices and infusions, from which its most renowned product comes, the only ecologically certified tea in all of Europe.

Currently they employ 11 workers and about 2.5 hectares of outdoor cultivation in which aromatics such as rosemary, thyme, laurel, and sweet chamomile stand out, as well as tea.

Their production is aimed at small specialized stores, big chains such as “El Corte Inglés” or “Eroski,” and they are even beginning to export to countries like Mexico and Germany. They plan to keep growing, always supporting local produce, generating value for the rural and ecological way with a current image and design.

1.6.- PHOTOS OF EXCURSION 1

2.- ROUTE 02 LANDS OF LEMOS

Trip Coordinator

Isaias Calvo de la Uz
Deputy Director, AGADER

Trip Moderator

Juan Pérez Sáncez-Orozco
Delegate, Agrarian Association of Galicia

2.1.- VISIT 1: SIL CANYONS

The Ribeira Sacra could be defined as one of inland Galicia's best-kept secrets. This destination is made up of 21 town halls in the south of Lugo province and the north of Ourense province, with the river course of the Miño, Sil, and Cabe Rivers binding them together.
Between the provinces of Lugo and Ourense, a little over 200 meters high, is the final stretch of the Sil River. On its sides, and along more than 35 kilometers, two walls arise which in some parts are over 500 m high above the waters. These slopes guide the river through ample curves and bends, which form some of the most magical corners in all of Galicia.

This area has been worked since before the arrival of the Romans, although it is true that they were the ones who started to perform the arduous labor of working the grapevines on the slopes of the Sil Canyon. Hundreds of years later, the hermit monks are who, looking for peaceful and remote places that were inviting to prayer, settled down on these same slopes. This later led to the founding of great monasteries and also to grapevine growing, producing wines with excellent quality. Wine has always been a main economic engine in the area, but why grow grapes in such a steep and difficult to access area? The answer lies in the special characteristics of these slopes, such as their intense inclination, their orientation, and the area's microclimate which form an ideal place to make great wine.

This setting, which is just as spectacular and fertile nowadays, attracted monastic communities since the beginning of Christianity. These groups searched for a settlement that favored the ascetic and eremitic life. Life in these territories began to organize itself around these monasteries, with their rights over the land, the organization of farming, mainly grapes, and the collection of taxes.

This abrupt orography has also been used to produce hydraulic energy, with several dams existing along the Canyon that make the Sil's water descend calmly and transitable for boats. In fact, one of the best ways to get to know the Sil Canyon is, without a doubt, aboard one of the catamarans that traverse its waters.

Wine is the distinguishing mark of the Ribeira Sacra. The Ribeira Sacra

RIBEIRA SACRA
Consello Regulador Denominación de Orixe

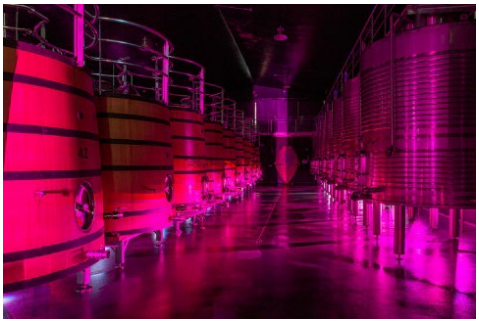
Denomination of Origin was created in 1997 and includes more than 1,500 hectares dedicated to grape growing, which makes up more than 5% of the total Galician land dedicated to wine production. The Ribeira Sacra is divided into five farming sub-areas: Chantada, Ribeira do Miño, Amandi, Ribeira do Sil, and Quiroga Bibei.

2.2.- VISIT 2: REGINA VIARUM WINERY

In the upper part of the pronounced slopes of the Sil River Valley we find the Regina Viarum Winery. A natural gem in inland Galicia, in the Amandi sub-area, with 14 hectares of grapevines, 130,000 liters collected from dizzyingly-high terraces that defy gravity and represent what is known as ¨Heroic Winegrowing.¨

Mencía grapes are the stars of this winery, which together with the cultivation of other varieties such as Godello or the less common Tempranillo, is able to produce wines with intense, fruity aromas and elegant freshness, where the Ribeira Sacra's terroir is present.

Promoting and safeguarding our history, tradition, and autochthonous grapes is our promise. We cultivate authentic ¨islands of vineyard biodiversity¨ at a 45º incline.



Many people stop working these lands due to the high production costs.

The development of machinery hasn't contributed much, since the dizzying slopes impede the mechanization of vineyard tasks, with the exception of some rails which are occasionally installed to lift grapes. Those who work on these lands understand perfectly the meanings of words like sacrifice, adversity, and hard work.

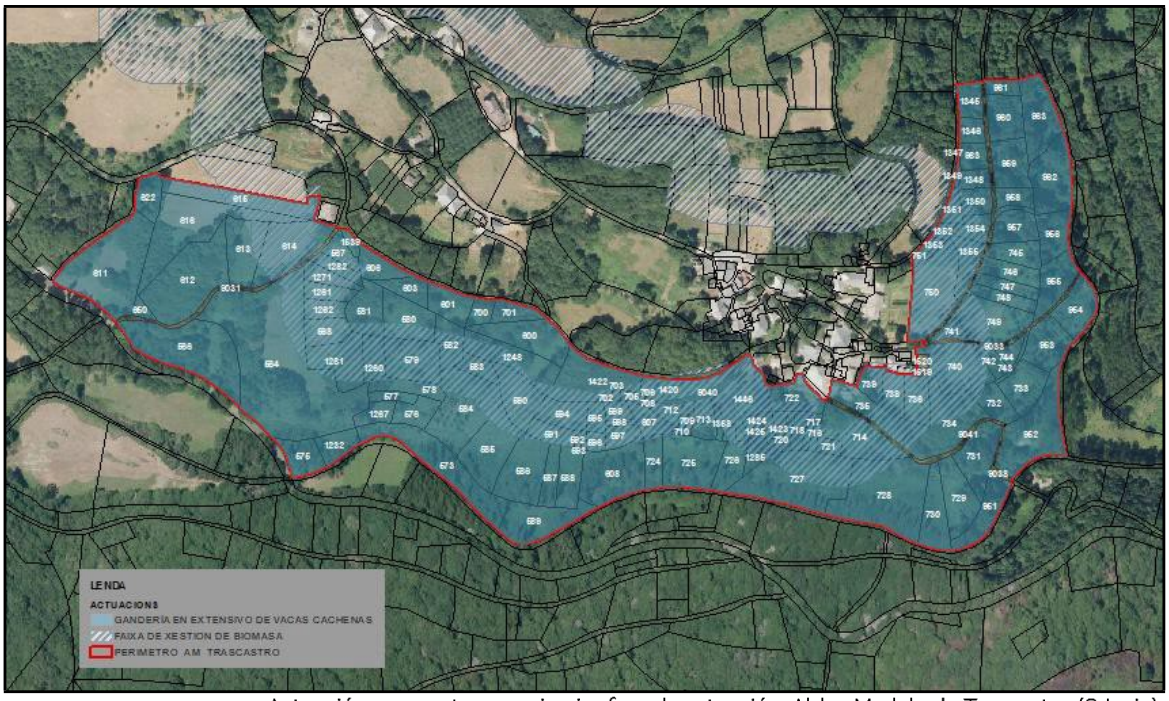
In order to understand the grape, we must first understand the soil where the vine buries its roots. Just 10 cm of

cultivable soil that is granite-like, slaty, and acidic favors drainage. This is just another special feature which explains the very unique traits of our grapes.

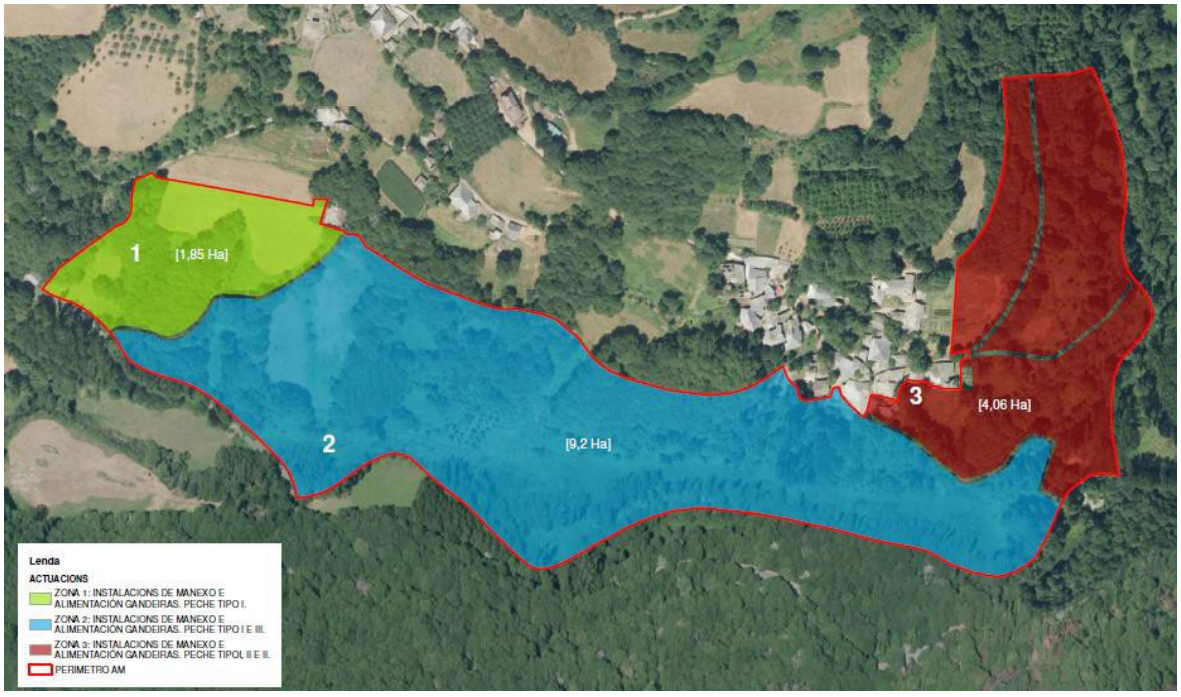
Regina Viarum is considered one of the most innovative wineries in Galicia. Pressing times, cold maceration, alcoholic fermentation, post-maceration, malolactic fermentation, clarifications, filtrations...a complex combination of physiochemical times that result in a finely-tuned wine, with a greater complexity of aromas and a greater balance in the mouth.

2.3.- VISIT 3: MODEL VILLAGE TRASCASTRO (O INCIO)

This is an initiative covered by the Law of Land Mobility through the program ¨Model Villages,¨ designed as a system to recover and make good use of the lands surrounding population centers, acting on the secondary strips of biomass protection, while also facilitating the fight against forest fires.



Actuacións propostas na primeira fase de actuación. Aldea Modelo de Trascastro (O Incio)



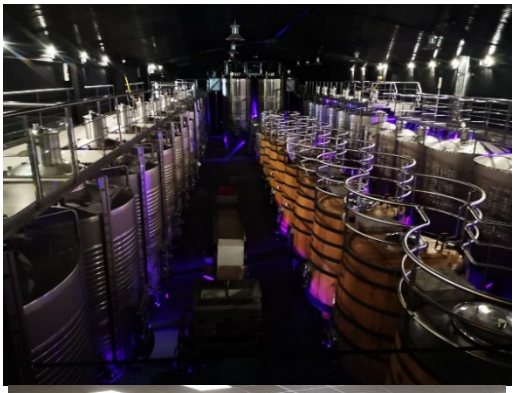
This is an open procedure which requires the commitment of landowners (at least 70%) and the involvement of mayors, in which the public business SEAGA carries out land-clearing labors. The commitment of the landowners is to cede or lease the land for farming activity during at least five years. Once the lands have been recovered, they will be introduced into the Land Bank.

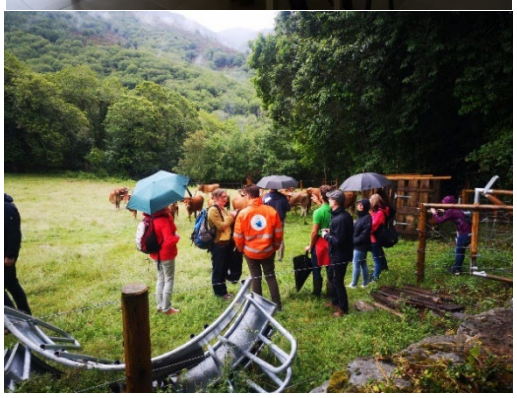
The Model Village that was visited is a project on 15.43 hectares, affecting 136 plots and a total of 82 landowners. They commenced the work which led to plot assignment and identification of properties. Afterwards, the productive direction of the area was determined to define and evaluate the necessary actions. The main, optimal activity was identified as cattle-raising in extensive methods.

In short, the work carried out includes the following:

- Selective clearing and cleaning of places in the greatest state of abandonment, while protecting the existing patrimonial elements
- Enclosures of different typologies including interior as well as exterior for different areas of operation, as well as the total perimeter
- Gateways for vehicle or machinery access in each of the three areas of operation
- Transition zones for cattle with their gates as well as simple gates for access to paths
- Installation of cattle-handling equipment: different models of mangers, troughs, and watering holes
- Improvement and preparation of existing paths

2.4.- PHOTOS OF EXCURSION 2: LANDS OF LEMOS-RIBEIRA SACRA





3.- ROUTE 03 RÍAS BAIXAS (GALICIA'S LOWER ESTUARIES)

Trip Coordinator

César Pérez Cruzado
USC

Trip Moderator

Martin Barrasa Rioja
USC

3.1.- VISIT 1: TECHNOLOGICAL INSTITUTE OF MARINE CONTROL (INTECMAR)

Created by Law in 2004 as a Public Entity, INTECMAR constitutes the official instrument of Galicia's autonomous administration, to control the quality of the marine environment and the application of legal regulations in matters of technical-sanitary control of sea products.

INTECMAR is headquartered in the dock of Vilaxoán, in Vilagarcía de Arousa, Pontevedra. The facilities, inaugurated in 1992, have been complemented with various expansions. At present, it has 3.600 m^2 of usable floor space and has 90 public employees.

INTECMAR's activities can be grouped in three core ideas:

- **Food safety,** through the quality control of the sea environment and the application of legal regulations in matters of technical-sanitary control of sea products, mainly the Regulation execution (UE) 2019/627 of the Commission on 15 March 2019, which established uniform practices for the execution of official controls of animal-based products destined for human consumption. INTECMAR has implanted a series of networks for control for tracking oceanographic conditions, physical as well as chemical; phytoplankton; sea toxins; heavy metals; organochlorine compounds; polycyclical aromatic compounds and microbiology.

- **Animal Health** with respect to the following and pathological control from the point of view of animal health in bivalve molluscs and other marine organisms in the production areas of the Autonomous Community of Galicia. The results obtained by INTECMAR are transferred to the Ministry of Agriculture, Fishing, and Food in biannual communications, as required by Royal Decree 526/2014 from 20 June which establishes a list of notifiable diseases in animals and which regulates the notification and the annual epidemiological report for the Autonomous Community of Galicia.

- **Observation of the ocean, maritime security, and the fight against accidental marine pollution,** as well as

scientific and technical support services in maritime emergencies, as established by Royal Decree 135/2016, which regulates the structure and organization of the Territorial Contingencies Plan for Accidental Marine Pollution in the Autonomous Community of Galicia (Plan CAMGAL). The need for this plan is derived from the intense marine traffic that passes by the Galician coasts, with more than 40,000 ships circulating annually through the maritime traffic separation device of Finisterre, which implies a greater risk of producing an incident that may provoke an oil spill.

In order to carry out official controls, in accordance with Article 37 of Regulations (EU) 2017/625 of the European Parliament and of the Council, related to controls and other special activities done to guarantee the application of legislation regarding food and feed, and of regulations on animal health and wellness, plant health, and phytosanitary products, INTECMAR has the obligation to be accredited in accordance with UNE-EN ISO/IEC 17.025, ¨*General requisites for the competency of calibration and testing laboratories*.¨

The human factor constitutes a basic element for the institute's activities, therefore the staff of INTECMAR are duly qualified and have the necessary experience for the development of their respective tasks, and they receive a suitable and continuous training that allows them to increase their efficiency individually and collectively. Currently there are 90 public employees serving in INTECMAR.

INTECMAR is a key center for shellfishing and aquaculture, productive sectors in which Galicia is a leader among European regions, and of vital economic and social importance on the entirety of the Galician coast because the work that is done allows commercialization with hygienic-sanitary guarantees for the molluscs produced in the Autonomous Community.

The results of the analyses carried out in INTECMAR are transferred throughout the year to different departments of Galicia's autonomic administration related to fishing, shellfishing, and aquaculture, as well as food safety; to the General State Administration; to sector entities of shellfishing and aquaculture; and in general, they are available for the society's needs. The main means of communication are its website www.intecmar.gal, sending e-mails, and phone calls, whose global data is seen in the following chart:

Website - Complete general information	>7.000 users >1.000.000 consultations / month

E-mail - Quick Alert Service: sending of the resolutions of closures/openings of production areas …….. - Phytoplankton recount reports…… - Test reports ……..	Received 541 103 10	Sent > 20.000 emails/month 2.000/month 250/month
Telephone **- Various Consultations**		 170/month

3.2.- VISIT 2: REAL CONSERVERA ESPAÑOLA (ROYAL SPANISH CANNERY)

The Real Conservera Española is a cannery with its headquarters in Cambados, next to the Rías Baixas estuaries. They continue a family line of over one century dedicated to canning seafood and fish. Their dream is to reposition Galician canning where they believe it belongs: at the height of the great gourmet bites. To achieve this, they create value with their brand and with it generate a more sustainable business, economically, socially, and environmentally speaking.

All of this cannery's products are made exclusively from fish and seafood from the Rías Baixas, whether they be from the Atlantic Ocean or the Cantabrian Sea. Moreover, they use only the best foods, captured in season when the fish are at their ripest and at the sweet spot for production.

The canning is done artisanally, taking care with the sizing and placing each piece manually in the can. That way they guarantee the best presentation when it comes time to tasting. They also have recovered long-forgotten processes such as toasting some fish, and they use only top quality ingredients. All of this adds up to a completely different product than anything else on the market.

In the Real Conservera Española, they are committed to applying the necessary control measures so that their products meet legislation requirements for food products, thereby guaranteeing safe consumption for consumers. This cannery has received numerous seals and certifications from different governing bodies, such as: IFS Food, CRAEGA (Galician Organic Food), FDA (American Food and Drug Administration), DOP Galician Clam, Noia Cockles, pescadeRías, and SAE 2. In addition to these seals, in their first year, "2021 World's Best 101 Canned Food Products from the Sea" recognized Real Conservera Española as the best cannery in the world. Achieving the No.1 Award in several categories. The products that achieved the Nº1 spot in their respective categories are: Razor Shells in Brine from Galician Estuaries, Mackerel in Olive Oil and Sardines in Olive Oil. In 2021, best in the world!

3.3.- VISIT 3: ROUTE BY BOAT TO THE TROUGHS TO SEE MUSSEL AQUACULTURE

Galicia's connection to the mussel is a fact that has been known since the 8th century AD. In the 18th century, small barrels of oysters and mussels, submerged in ¨royal escabeche¨ were sent from the Rías Galegas (Galician Estuaries) to the Austrian courts in order to be consumed by the nobility during lent, but it wasn't until the 1940s when the grand development of Galician mussel culture commenced with the farming of mussels by hanging.

In 1945, the first trough was anchored in the Ría de Arousa (Arousa Estuary) and the following year, 10 troughs were installed in the breakwater of Vilagarcía de Arousa's port. In 1949 anchoring began in the Ría de Vigo (Vigo Estuary); in 1954 it expanded to the communities of Cambados, O Grove, Bueu, Redondela and Pobra do Caramiñal; a year later troughs were installed in the Ría de Sada, and finally in 1956 in the estuary of Muros.

That's how in the middle of the 20th century, with the development of the activity, it went from being a simple gathering to an exceptional cultivation in the world of aquaculture, becoming a pillar of many coastal towns' economies and providing a generalized promotion of seafood up to this day.

The mussel (*Mytilus galloprovincialis),* is the main product of Galician aquaculture, with an average annual production of 250,000 tons, which puts Galicia in the 95% of Spanish production of this species, 37% of European production, and 21% of world production.

The Autonomous Community of Galicia has approximately 1,200 kilometers of coastline, the rías (estuaries) being an ideal ecosystem for cultivating mussel. The FAO (Food and Agriculture Organization of the UN) considers the Galician *Rías* to be one of the most important deposits of phytoplankton on the planet. Their special conditions, their warm water temperatures, and the elevated primary production make them an unbeatable setting for seafood development.

Mussel farming in Galicia takes advantage of the exceptional environmental conditions of the *rías* (estuaries). The upwelling of deep waters rich in nutrients favors the increased production of phytoplankton, and the mussel is nourished, by filtration, by the abundance of food, reaching its commercial size in less time than on other coasts and having more intense colors than mussels which come from other places, due to the exceptional conditions-- in quantity and quality-- of phytoplankton in the Galician *Rías*.

On our coasts the mussel achieves its commercial size (70-95mm) in approximately 17 months, versus what happens in other producing countries, where the period of cultivation is much more drawn-out (in the rest of Europe, mussels need 2 to 6 times as much time to reach this size).

The traditional farming system in Galicia is the trough, an autochthonous design which has the best-known performance and which managed to convert Galicia in a European leader of seafood production.

The trough is a floating nursery made up of lattice from Eucalyptus wood, more or less rectangular in shape, on which ropes for mussels are tied. The trough remains suspended through a system of floats.

Farming is a completely natural process since the mussel efficiently takes advantage of the nutrients that Nature gave the Galician *Rías*. It is also an example of a sustainable activity as it is economically viable, socially equitable, and environmentally friendly.

Nowadays, Galician mussels possess the distinguishment of PDO *Galician Mussel* which offers an additional value to the product and protects the sustainability of the sector that generates an enormous bandwagon effect in promotion of investment in stocks of processing companies (canning, freezing, pasteurizing) and retailing companies (purification, dispatch centers), in auxiliary businesses (shipyards, boilermakers, riverbank construction, ropemaking), in the service sector (financial activities, legal and job advising) and in the development of knowledge creation centers (research, control, monitoring, training).

The process of mussel farming is divided into several stages:

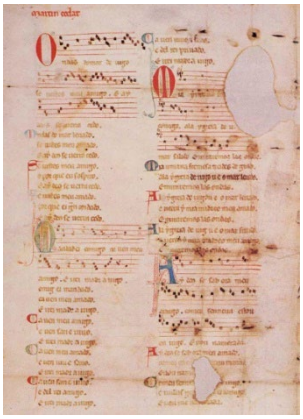
MUSSEL SEED EXTRACTION : From December to April, the mussel harvesters jump to the most beaten rocks on the coast to collect the mussel seeds using scrapers. Additionally, where the oceanic and environmental conditions are favorable, the harvest of mussel seeds is carried out via collector ropes specially designed so that the mussel larvae attach themselves. The collector ropes hang from the trough from March to June, their spawning season, the time in which the larvae attach themselves to what will become mussels in due time.

STRINGING: The seed from 1-2 cm is taken to the trough or boat and preparation of the ¨mussel seed ropes¨ commences. The mussel seed is wrapped around a rope with the help of a fine, biodegradable rayon net, giving the mussel enough time to hold on the rope. This operation is done either manually or using machines designed specifically for this purpose, the ¨*encordadoras*¨ (stringers).

SPLITTING: After 4 to 6 months in the sea, when the mussel reaches 4.5 or 5.5cm, they proceed to the hoisting of the mussel seed ropes. Due to the considerable increase in the mussel's weight, it's necessary to split the ropes, that is, the creation of new, less dense ropes. This splitting facilitates the mussel growth, as well as avoids its detachments

from the ropes. For each ¨mussel seed rope, ¨ two or three ¨split ropes¨ are obtained.

HARVEST AND SELECTION: After approximately a year, the mussel from the split reaches its commercial size. The ropes are removed from the water with the help of a crane, and hoisted on deck. Once on deck, if the mussel is destined for fresh sales, it is cleaned with plenty of seawater and then is selected by size and finally placed in plastic sacks, ready for transport to shippers. As for mussel harvesting for factory sales, the mussels are cleaned and placed unpackaged in the boat. Later, the crane from the dock collects the mussels and inserts them in the truck headed towards the processing plant.



3.4.- VISIT 4: MARTÍN CÓDAX WINERY

LOCATION:
In the Salnés Valley, situated in the heart of the Rías Baixas (Galicia's lower estuaries), it consists of a humid climate with constant and mild temperatures year-round, favorable for the maturation of the Albariño white grape. The Atlantic character that strongly permeates in the region is reflected clearly in our wines' personalities which offer unique freshness and salinity.

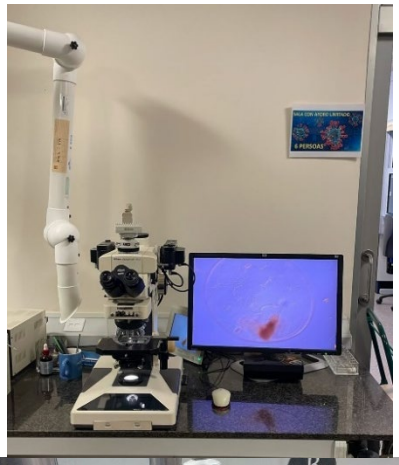
ORIGEN and HISTORY:
Martín Códax Winery originated in 1985, thanks to a group of 50 viticulturists who were able to see the potential of the Albariño white grape and who enacted an ambitious collaborative project. Since their beginnings, they have always looked for something that could represent what we are: a group of Galician, grape-growing families who are in love with their land and their tradition. The founders were inspired by Martín Códax, a celebrated Galician troubadour from the 8th century whose cantigas are still known to this day. This project was named after him due to his link to the land, sea, and culture.

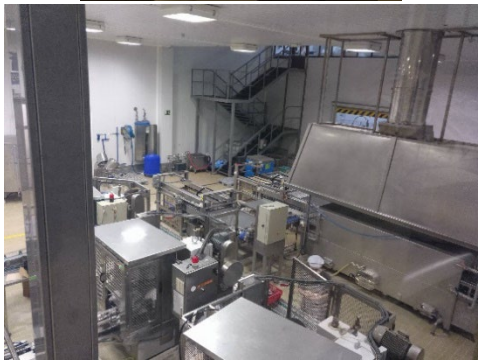
EVOLUTION:
Since then, the Marín Códax Winery project has grown and evolved, always supporting its people, its land, and its culture. A culture which they currently export to more than 50 countries throughout the world where the brand is present. Currently, 500 grape-growing families form part of this collaborative project.

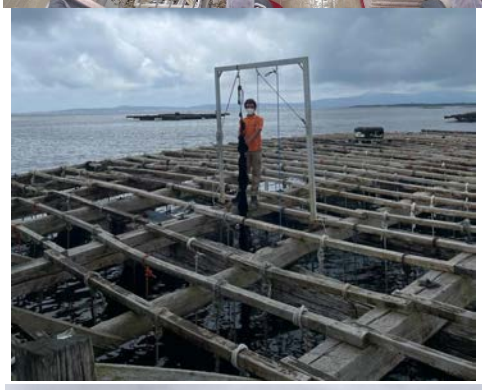
SUSTAINABILITY AND QUALITY:
Sustainability is a basic pillar of the development of our activities at Martín Códax Winery which has the key principles of respect for the surroundings, including the social sphere as well as the environmental sphere, seeking to give back everything which is contributed. Conceived as a collaborative model based in circular economy, the winery invigorates the Salnés region both socially and economically, caring for the land, valuing its origins, and putting people in the center.

Currently, the Martín Códax Winery Group has become a modern corporation thanks to its continuous investment in research and development and sustainability, as well as its support for the talent and expertise of its human team.

3.5.- PHOTOS FROM EXCURSION 3: RÍAS BAIXAS







4.- ROUTE 04 THE MOUNTAIN OF LUGO

Trip Coordinators

José Luis Cabarcos Corral
Director General, AGACAL

Manuel López Luaces
Deputy Director, AGACAL

Pablo Lúgaro Seco
Head of Dept. of Research & Transfer, AGACAL

LOCATION REFERENCE:

Lugo Province:

- Population: 326.013 habitants (158.000 men and 168.000 women)
- Most important city: Lugo: 97.613 habitants (30% of the province)
- Population distribution: 30% > 64 years
- Surface area: 9.856 Km^2
- Connections: Good connections with the *meseta* (central Spain) and the northern part of A Coruña Province via highway, but deficient with the rest of Galicia, via highway and railway. Currently a highway is being built to connect Lugo with the capital of Galicia (Santiago de Compostela) and Pontevedra Province.

Region of A Fonsagrada:

	YEAR												
	1981	**1986**	**1991**	**1996**	**2001**	**2006**	**2011**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**
A Fonsagrada	12.557	11.289	9.510	8.313	7.461	6.753	6.043	5.316	5.185	5.075	4.921	4.830	4.741
Baleira	2.728	2.533	2.185	2.055	1.888	1.684	1.510	1.333	1.296	1.268	1.241	1.226	1.190
A Fonsagrada	9.392	8.366	6.986	5.948	5.334	4.856	4.309	3.768	3.670	3.589	3.465	3.389	3.328
Negueira M.	437	390	339	310	239	213	224	215	219	218	215	215	223

People dedicated to agriculture in the region of A Fonsagrada: 1.353

4.1.- VISIT #1: LAND CONSOLIDATION IN BALEIRA CONCELLO DE BALEIRA:

Baleira Township:

- Population: 1.190 habitants
- Population distribution:
- 6% <18 years
- 19% between 18 and 40 years
- 17% between 41 and 55 years
- 17% between 56 and 64 years
- 40% > 64 years
- Population working in the primary sector: 408 (34,3%)
- Surface area: 169 Km^2
- Location: the area is located in the inland of Lugo Province, and area that could be called foothills. The most important urban nucleus is half an hour away by car, the city of Lugo.
- Climate: the area has an inland climate with cold winters (0ºC) and mild temperatures in summer (maximum 25ºC)
- Orography: It's an area that could be called foothills with plains that allow machining. In the rest of the

township, the orography changes and becomes complicated, and the plains become hillsides with difficult or impossible machining, a situation that is causing the population's progressive aging and abandonment.

Specific data about land consolidation in Baleira:

AREA	DECREE	LAW	AREA (ha)	OWNERS	PLOTS	ESTATES	# PLOTS/ OWNER	# ESTATES/ OWNER	PLOT AREA(ha)	ESTATE AREA (ha)
LIBRAN	03/11/99	05/03/12	905	266	2401	569	9.03	2.14	0.38	1.59
ESPERAR	27/05/99	02/04/12	1193	230	1907	548	8.29	2.38	0,63	2.18
POUSADA	27/05/99	06/12/19	1210	177	2925	490	16.53	2.77	0.41	2.47
A BRAÑA	25/06/99	06/07/21	229	86	730	181	8.49	2.10	0.31	1.27
FUENTE	25/06/99		147	117	544	193	4.65	1,65	0.27	0.76

4.2.- VISIT 2: PROTECTED GEOGRAPHICAL INDICATION FOR MOUNTAIN WINE

Negueira de Muñiz Township:

- Population: 223
- Population distribution:
  - ✓ 11% <18 years
  - ✓ 23% between 18 and 40 years
  - ✓ 23% between 41 and 55 years
  - ✓ 25% between 56 and 64 years
  - ✓ 25% > 64 years
- Population working in the primary sector: 42
- Surface area: 69.2 Km ^{2}
- Location: The area where this Protected Geographical Indication is found is an inland part of Lugo Province, an area that could be called mountainous, but situated at the bottom of the canyon of the Navia River (6 parishes of A Fonsagrada Township, 6 parishes of Navia de Suarna Township, and the entirety of Negueira de Muñiz Township). The closest urban area is an hour and a half away by car, the city of Lugo, or the Asturian town of Cangas de Narcea. Specifically, the town of Negueira de Muñiz has the distinctive feature of being selected for the construction of the Salime Dam in 1952, thus half of the area was isolated from the rest of Galicia until 1989, when a bridge for vehicle access was built at the end of the dam. Despite this connection, the journey still entails 45 extra minutes to the town's capital. This isolation caused the establishment of the biggest hippie commune in Spain in the 1970s, with people coming from all around Europe.
- Climate: The defined area has a clearly determined climate that could be classified as oceanic climate in transit to Mediterranean, with low average annual temperatures. The warmest months are July and August, with and average temperature of 21ºC, with a wide temperature variation between day and night and a noticeable dryness in summer which creates a more Mediterranean climate, demonstrated by the abundance of species like strawberries and cork oaks. January is the coldest month, with temperatures averaging 7.5ºC. Estimated precipitation for 450m above sea level, according to the nearest meteorological station (in Folgueiras de Aigas and O Xipro), is 650 mm per year.
- Orography: Within the boundaries, almost the entire area dedicated to grape growing is at 200 to 500 meters above sea level, nestled between mountains that are over 1,000 meters above sea level, on sloped terrain and moderate orientations protected by the elevation of the Ancares, the Uría Sierra, and the Acebo Sierra to the north, which create an important barrier effect against the penetration of ocean winds, which represent the ideal situation for a high-productivity farming area.
- PGI Information: https://mediorural.xunta.gal/sites/default/files/produtos/en-tramitacion/Prego-Condicions-Terras-do-Navia-marzo-2020_es.pdf _
- Potential Area of the PGI: A little over 20 hectares in the medium term.
- Surface area where PGI is cultivated: 13.5 hectares (plus 4.5 hectares to be planted in the next two years)
- Prioritized grape varieties: Blanco legítimo, Merenzao , Mencía, Todo serodo (Carrasquín)

- of Producers: 2 (plus 2 planning to join in the short term)
- of Wineries: 2 (plus 2 in the project)

Panchín Winery: https://goo.gl/maps/S2qiQgyLL8o9RFRy9

- Owner's name: Manuel Cancio López, 59 years old
- Vineyard surface area: 2 hectares. 1.8 more hectares planned
- Winery age: 20 years
- Current production: 7,000 bottles
- Winery capacity: 20,000 bottles

Sidrón Winery: https://goo.gl/maps/S2qiQgyLL8o9RFRy9

- Owner's name: Paco Sanromán Lledin
- Vineyard surface area: 3.5 hectares
- Winery age: 5 years
- Current production: 7,000 bottles
- Expected capacity: 20,000 bottles

4.3.- VISIT #3: MEAT EXPLOITATION WITH RESTAURANT

A Fonsagrada Township:

- Population: 3.328
- Population distribution:
  - ✓ 6% <18 years
  - ✓ 17% between 18 and 40 years
  - ✓ 20% between 41 and 55 years
  - ✓ 17% between 56 and 64 years
  - ✓ 41% > 64 years
- Population working in the primary sector: 903
- Surface area: 438.45 Km^2
- Location: A Fonsagrada Township is the largest township in Galicia and the second biggest in Spain. It is the capital of this mountain range in Lugo Province.
- Climate: A Fonsagrada Township has an inland climate with cold winters (0ºC) and mild temperatures in summer (high 25ºC)
- Orography: It can be divided into two areas:
  - The area south of the main road has a complicated terrain and is where the farms are slowly disappearing due to smallholding, the small surface is difficult to mechanize and consequentially the size of farming operations is reduced
  - To the north of the main road is where the topography is smoother, the relevance of smallholding decreases greatly due to the partition during the last century and a large number of communal

forests which manages to maintain an important number of families in charge of cattle farms that are big enough to ensure their viability.

- Owner's name and age: Ovidio Méndez Rodríguez, 48, and two daughters.
- Chronology of farm and restaurant:
    - Up until 2008 they possessed a stable with 110 cattle and 15 Limousine cattle. That year they restored the family house and made it into a restaurant with space for 90 people.
    - In 2012, they replaced the Limousine cattle with the autochthonous breed Vianesa
    - Currently under construction apartments for work-from-home stays

4.4.- VISIT 4: HIGH MOUNTAIN MEAT EXPLOITATION WITH RURAL TOURISM

- Owners' names and ages: Facundo Díaz Pérez (56), Alicia López Díaz (54) and Omar Díaz López (son, 31). They also have a 29-year-old daughter who works outside of the family business.
- Chronology of the farm and rural apartments:
    - In 1989, Facundo takes over his father's farm of 15 stabled horses (some already slept permanently in the pasture, contrary to people's opinion) and 10 hectares for grazing. After that year, the herd increased, and a free stall barn with grates was built, which quickly became too small for the her and meant more and more cattle would sleep permanently in the pastures
    - In 2000, they set up Facundo's mother's family house to be rural apartments, with a capacity of 4 apartments. Alicia manages the apartments.
    - What was really complicated in the restoration of the house was buying out all of the inheritance of the house where they live (the father's family house, who had 10 siblings) as well as the restored house (the mother's family house, who had one brother). Facundo has four siblings who he had to buy out.
    - In 2008, a farming machinery co-operative was established with four other farmers in order to have good machinery service and little investment.
    - In 2016, their son joined the farm, increasing the herd to its current number of 95 and a grazing area of 70 hectares. The majority of the surface is rented, paying 7,000€ annually. It is worth noting that many of the rents are precarious with the instability that this can cause.

4.5.- VISIT 5: DAIRY FARM OF GRAZING CATTLE

The owner of this farm is Daniel Veiga Legaspi. It is located in Miñotelo, in the parish of Aguarda (A Pastoriza). This farm began its activity in 1982, when the original property of 12 hectares was acquired, with five dual-purpose cows and with manual milking. Gradually the Holstein Friesian cattle herd increased, acquiring and renting wild brush lands which were broken up to establish long-term meadows.

All of the available surface area is dedicated to grazing. Five years ago, they abandoned farming corn because they believed that, within their production system, the cheapest food is grazed grass. They try to keep English ryegrass and white clovers as the dominant species in their pastures.

The fertilizer is essentially organic, they use liquid manure from the farm itself and occasionally from other farms that plant different crops and cannot spread it during the summer. Each year they apply 50 units of P205 fertilizers and they don't usually use nitrogenous fertilizers, except occasionally in cold springs in order to accelerate grass growth at the start of spring.

Grazing starts at the beginning of the month of March, beforehand it is difficult because the terrain is usually very wet and the cattle stepping on it destroys a lot of the grass and negatively affects the plots' soil. Grazing is rotational with lengths of stay lasting between a minimum of one day and a maximum of three. The animals access the plots to graze when the grass is between 12 and 15 cm high and they leave when it is between 5 and 8 cm high. During springtime, they usually take 20 days to return to the first plot. Approximately 50% of the meadow surface area is left alone to ensile, gathering between 6 and 8 weeks, depending on the speed at which the grass grows, and on the meteorological conditions, since they pre-dry the grass. One major problem occurs when the meadow is invaded by *Agrostis stolonifera* which tends to happen if the grazing is poorly regulated and the cattle have ample surfaces to graze and when they leave, they leave an excessively high grass, above 8cm. If the summer is dry, the grass is supplemented with siloed grass. The grazing continues in autumn and usually lasts until the middle of December. As an exception, this year the cattle grazed until 15 January.

In winter the animals stay in stables during a period of approximately two months. For the purpose, the farm has a free barn with 64 cubicles and 70 headgates. They also have a milking parlor with 10 spots and electronic measurers and automatic cluster removal.

In the Patalarga farm, Frisian breed livestock is decreasing and it is being substituted by crosses with other dairy breeds (Jersey, Normande, etc.) or dual-purpose cattle. This substitution has numerous objectives which are, on the one hand, to achieve animals that are better adapted to grazing, although the Holstein Frisian cow doesn't have issues with this system, and on the other hand, to produce milk with more fat and protein, more longevity, and better calves for veal.
Milk production is 7,174 liters per cow per year, and 8885 liters per hectare, which meant selling 418,514 liters in the last year. Milk from this farm is considered rich in Omega 3 fatty acids and is sold as ¨Natura¨ whereby it obtains a 3-cent surcharge per liter.

Due to the fact that the animals graze almost year-round, in the livestock's diet they use conventional feed, without flaxseed, since it reaches the necessary parameters without issues.

Extract consumption is around 200 grams per liter of milk. This farm barely has any sanitary problems; they do not conduct any vaccines and the fertility level is very good, which is believed to be favored by the elevated presence of linoleic acid in the fresh grass. The farm employs the owner, an employee, and the owner's wife part-time. All of the work in the field is done with the materials and machinery possessed by the farm itself, only contracting during grass harvesting to ensile and to wrap they hay in plastic when creating hay bales.

5.- ROUTE 05 TERRA CHÁ (LUGO'S FLAT LANDS)

Trip Coordinators

Carlos Alberto Rodríguez
Provincial Council of Lugo

Pedro Fiz Rocha Correa
Agroforestry Engineer

Trip Moderator

Elena López Colmenero
Juana de Vega Foundation

5.1.- VISIT 1: HEIFER REARING CENTER AND EXPERIMENTAL FARM CAMPUS TERRA

The center is located in Castro de Rei Township and holds, within its 300 hectares of land, different activities of the primary sector. Their efforts to recover the Rubia Galega breed stand out, through an agreement with ACRUGA (Rubia Galega Breeders Association) as well as their trials with grain and fodder species.

They also have a building conditioned for education where, in agreement with the University of Santiago de Compostela and the high school IES Trapero Pardo, training courses are taught for farmers and ranchers with specialties and internships for students in subjects related to the sector.

In the Gayoso Castro Farm complex, they develop activities supporting Rubia Galega-breed rearing, in collaboration with the Rubia Galega Breeders Association (ACRUGA) and they also have a dairy cow rearing center, the first created in Spain by public initiative. The latter facilities can hold up to 2,500 calves, doubling the rearing capacity that exists nowadays in Galicia.

Additionally, in the Gayoso Castro Farm at the end of 2020 they opened a new unit, the Experimental Milk Farm, with the collaboration of the University of Santiago de Compostela (USC). This new center is ground-breaking in Galicia since it is the first to combine training and research activities around the dairy sector.

In the Experimental Milk Farm they analyze the reality and problems of the sector and then transfer knowledge, offering farms improvement guidelines and solutions. Furthermore, the milk unit in Gayoso Castro Farm covers an important part of the internships from the Veterinary School and the Higher Polytechnical Engineering School (EPSE) on the Campus Terra in Lugo, which allows more quality in the students' training, because they carry out their internship in a living laboratory.

The Milk Unit at Gayoso Castro Farm aims to put training, research, and innovation at the service of the farmers of the province, the primary sector, and rural development. In this farm, they analyze all of the farms' parameters and issues and then offers the primary sector guidelines for improvement and solutions.

These facilities contribute to the province's economic development by driving an essential productive sector like the dairy sector, in which Galicia is a powerhouse at the State level. It also contributes to retaining talent in the area, and keeping population in rural areas.

The facilities are built on a property of 15,500 square meters. It has space for 70 producing cows and 12 dry ones. It has a shed for dairy cows, a shed for machinery, a classroom (set up for 40 students and 20 spots for researchers), a liquid manure tank, and two concrete silos.

Of the 15,500 square meters, 4,400 square meters are used for infrastructure. The milking parlor has room for 10 heads of cattle and utilizes a robot, a mechanism that is combined with grazing, a still uncommon system in Galicia, but widely used in other areas of Europe and which allows cost reduction and adds value to the milk.

They have incorporated a set of animal wellness measures, including rotating brushes, cubicles, and galvanization. The center has an observation area which facilitates a complete vision of the facilities, a very useful aspect when it comes time to carry out internships.

5.2.- VISIT 2: INNOGANDO

The start up Innogando was created aiming to offer technological solutions to improve the quality of life of farmers as well as the profitability of farms around the world, improving animal well-being and the sector's reputation in

society.

Innogando is encompassed in Smart Farming and is made up of farmers, veterinarians, and computer engineers. Their objective is to digitalize the farming sector in order to improve the farmer's quality of life, the profitability of their farm, and animal well-being.

Technology and data are our powers, and with that Innogando facilitates task management of the most important tasks on the farm, with the ongoing objective of satisfying the farmer's needs.
Services for farmers:

- GPS localization
- Higher profitability of the farm
- Activity monitoring
- Improved quality of life

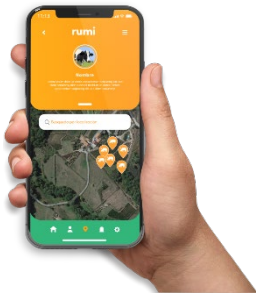
Service for businesses:

- Quality control
- Blockchain traceability
- Animal well-being guarantee

Service for consumers:

- Real traceability
- Commitment to animal well-being
- Transparency

ELITER is a simple and easy-to-use mobile app. It allows complete control of livestock, with the possibility to consult all necessary information at any time or place. It is a novel system which is able to compile all the necessary information to guarantee the good condition and animal health of the calves, giving them an added value that will be reflected in an increase in benefits for everyone involved in the value chain. ELITER is synonymous with guarantee, traceability, and quality.



RUMI is a GPS localization system for cattle, which monitors the animal's status in real time, providing the producer with the information that they need. Also, RUMI Partos allows the user to know in real time the exact moment of giving birth. RUMI's main objective is digitalizing and automating farm processes related to the operative and productive operations, especially those focused on data analysis.

With RUMI, the producer will be able to digitalize daily workflow on the farm:

- Intelligent detection of sick animals
- Intelligent detection of rutting
- Intelligent detection of escapes
- Intelligent management of costs
- Digital management of the herd
- Digital traceability and stock control

RUMI offers:

- Implantation, parameterization, and training services
- Remote support for consultations and questions
- Software updates and revisions included during 12 months
- APIs or Web Services for integration with other tools
- Data integration with other databases: connection to data sources, visualization to discover what is important and share it with anyone or with all of the users from the organization

- Data storage: storage capacity from 1Gb per user
- Creation of structured dashboards: dynamic reports which allow questions and answers about the business' key issues
- Exportation and visualization of data: exportation of information to make it compatible with other systems and visualization of multiplatform panels.

5.3.- VISIT 3: GRIXEIRA FARM

Grixeira Farm is a general partnership made up by Pepe and Zeltia who joined the activity in 2018 after the retirement of Rubén García and his wife Mary Lamela, previous owners and Pepe's parents. The farm mis located in the parish of Arneiro, in the municipality of Cospeito.
Around the year 1960, the Spanish State decided to give agricultural and livestock use to abandoned lands. They distributed the lands in 44 plots. Each of the plots was given a house, shed, two silos, a stable for 22 cows, and 16 hectares of land—8 of which possessed irrigation systems.

In 1968, Manuel García (Pepe's grandfather) became the owner of a plot, occupying it with two cows, a horse, and a cart. In 1979, a new stable was built to hold 36 cows in fixed place, milking with a circuit, and a liquid manure pit. In 1985 it was increased for 15 more animals, plus a shelter for rearing. A stable was built for 76 cows in free stabling in 1999, as well as a milking parlor with 10 places, a dairy, a liquid manure pit, and an area for rearing 30 animals. In 2006, rearing was changed to a new hall divided into six sections with hot beds, and two new liquid manure pits were built. More room was added to the milking hall in 2014.

In 2018 with the addition of Pepe and Zeltia, the liquid manure pits were covered and a covered dung heap was made.In 2020 they made the big, technological leap, adapting everything with three milking robots, a suckling cow for rearing, and a feed pusher

They currently have:

- Approximately 250 head of cows.
- Three milking robots, a suckling cow to feed calves, an automatic feed carrier
- An annual production of approximately 1,600,000 liters
- A territorial base of 226 hectares, between property and leasing. Of these hectares, 53 are dedicated to corn and the rest are natural pastures.
- The current workforce is 5 total ABUs (2 ABUs for the owners and 3 ABUs of outworkers with indefinite contracts and careers over a year and a half).
- They have all necessary machinery for the day-to-day operations of the farm, with the exception of a harvester to ensile fodder and a manure spreader.
- They complement their dairy business with direct sales of excess fodder.

This farm was chosen by McDonald's to demonstrate their support of Galicia, since the nearly 165,000 liters of milk that Grixeira's cows produce go on to make some of the cheese varieties that McDonald's uses on their menu. Grixeira Farm has also been working with Danone for more than 30 years and has received two awards at a State level: the Environment Award in 2011 for cleanliness and reduction of water consumption and waste, and the Young Farmer's Award in 2018.

5.4.- VISIT 4: INNOLACT

Manufacturing cream cheese, a range of products which demands precise technological knowledge, was historically led by large multinationals like Kraft or Bongrain. Around the year 2006, the team which directed the Dairy Products Classroom (University of Santiago) developed its own production process to manufacture cream cheese, but found that no industry was interested in buying it. Given these circumstances, the researches decided to motivate Innolact, a business born as a spin-off of the University and which nowadays produces more than 2,000 tons of cream cheese, mainly under the brand Quescrem.

Innolact is a Galician business with innovative dairy products and satisfied clients in the industry, food service, and retail. The development of new products, such as cream cheese and other types of cheese, is one of the hallmarks of Innolact. They have also built a biogas plant to treat industry waste in order to produce energy.

With 70 staff members, 8 of them belong to the research and development department, which allows it to be at the forefront of research and product development. It also has its own pilot plant and an applied cooking laboratory. Each year, Innolact invests between 6 and 10% of profits in research and development. Its main activity is producing and selling white pasteurized cheese and processed cheese from milk and other products from the dairy industry, such as cream and buttermilk. In addition to selling its products in Spain, the company sells 50% of its production in over 40 different countries throughout Europe, Africa, the Middle East, South America, Asia, and the United States.

The Innolact plant, located in Castro Riberas de Lea (Lugo), currently produces around 45 models, part of them aimed at the hospitality and food industries, and made with technological functionality, that is to say, Innolact indicates in each batch its resistance to processes like freezing and baking.

In formats directed towards the end consumer, apart from standard cream cheese, Innolact offers products with specific nutritional characteristics (lactose free, light, no salt added, organic) as well as gourmet mixes (cream cheese with algae, cream cheese with garlic and herbs, cream cheese with San Simón da Costa Galician cheese). Chocobó --cream cheese with chocolate-- is another one of their most successful creations geared towards the end consumer.

Their brands and products are present in over 40 countries on 5 continents.


Quescrem
especialistas en queso-crema


ChocoBó


Ruletto


Oitolea

5.5.- PHOTOS OF EXCURSION 5.- TERRA CHA

6.- ROUTE 06 A ULLOA

Although finally this excursion was not carried out due to logistical issues, we have likewise included a summary of the would-be visits.

6.1.- VISIT 1: AVIPORTO

Basic information about the farm:

Owner: AVIPORTO Ltd.
Manager: Daniel Serano
Location: Toxibo – Gonzar (LU 633, pk 76.5) Portomarín. Lugo
Farm type: Aviculture
Technical plant to make fertilizer and soil conditioners with organic origins
Rice husk distribution as cattle bedding
Size: 7 fattening sheds
Fertilizer processing plant and rice husk storage center
On a plot of 5 hectares, with constructions of 16,600m ^{2}
Production: 925,000 chickens enter, with 885,000 chickens slaughtered
6,915 m ^{3} of chicken droppings processed, 2,800 t of which are from the farm itself
2,200 t of fertilizer processed
Workforce: 1 AWU for poultry work
1 AWU for fertilizer making
1 AWU for administration
1 AWU for management

Brief History of Aviporto

DATE	EVENT
1990	Start with 1 shed
1995	Expansion to 3 sheds
1999	Start of processed organic fertilizer factory
2002	Expansion to 5 sheds
2002	Expansion to 7 sheds
2004	Factory storage unit expansion
2005	Expansion to 10 sheds
2007	Energy efficiency improvement: solar panels and a biomass water heater
2021	Remodeling of processed organic fertilizer factory

Aviporto Ltd. (Portomarín, Lugo) started its activity at the beginning of the 1990s as a chicken farm. It had two spaces for fattening and the manure produced by the animals was highly valued with the area's farmers, where they were welcomed.

As the farm increased breeding areas in the late 1990s, they realized that the manure which had previously been an additional income, reached such a volume that it became an issue and an extra management cost, since not enough could be sold at a local level.
The control throughout the process is a point that we at Aviporto consider to be very important. We can guarantee the manure's traceability and that we don't use any type of outside material. We only employ chicken manure. For our clients, it is important to be sure about the product's origin

and quality, since in the market one can find all kinds of products.

The Higher Polytechnical School of Engineering in Lugo (ESPE of the University of Santiago) has collaborated with the company in manure tests on different crops, with hopes to validate its agronomic potential.

Organic manure is valuable for producers who know the importance of caring for the land; our product's composition contributes to improving the soil's biological properties, increases its organic material, unblocks minerals, and also fertilizes the crops. Organic manure doesn't seek to compete with the costs of NPK fertilizers. It is more interested in achieving sustainability for farm production.

The incorporation of manure can be done either during the work preparing the terrain, typical in garden crops, or by applying a localized cover, such as with vineyards.

6.2.- VISIT 2: AIRA CO-OPERATIVE'S FEED FACTORY

Aira is the result of a process of co-operative integration started in the year 2018, which meant the fusion into one singular legal entity of the co-operatives AGRIS, ICOS, COGASAR, COELPLAN and AIRA itself.

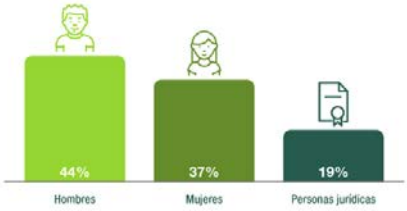
Previously, in 2005, Aira had been established as a secondary co-operative, composed of 12 co-operatives which united with the goal of building a large feed factory in Taboada (Lugo) that was modern and competitive, and which came to light four years later. The initial production of this center was more than 100,000 tons of feed annually, a figure which nowadays **has been increased to up to 207,000 tons.**

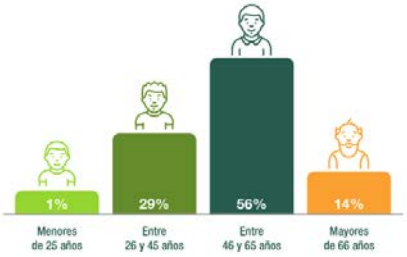
The co-operative's main activity still revolves around milk production, and the majority of the products which they sell focus on this segment. The factory in Taboada is currently the largest factory for bovine dairy feed in Spain. Aira also commercializes fertilizers through participating businesses like Delagro. Aira also offers products and dairy components such as pasteurized milk, cheese, etc.

Aira also extends all kinds of services to its members, designed to improve their operations' performance, to promote better production practices, and to guarantee the sector's viability as a whole. All of this inspired by the values of equality, quality, fair trade, and sustainability. Currently they have more than 2,900 members in the provinces of Lugo, Pontevedra, and A Coruña, and 250 workers in the delegations that the co-operative has. The total volume of business amounts to 125 million €.

Member profile:

THE CO-OPERATIVE'S SERVICES





Administration and advising

Aira offers all of its

members a comprehensive service of tax and accounting advice, labor law services, corporate counseling, and administrative advice, taking care of each member's specific needs.

Agricultural Supplies and Technical Services

In Aira they provide all the products that their members and clients need for the proper development of their activity, be it with livestock or agriculture, complimenting their supplies with agrarian stores and supermarkets. Likewise, they offer a wide range of services aimed at reaching a greater profitability of operations.

Agricultural stores and warehouses

In their area of implementation, they have a network of points of sales formed by 13 agricultural stores and warehouses which provide a well-stocked offering of professional products. Within this network are seven supermarkets under the insignia Mercarural, that strive to facilitate the day-to-day of their members' and neighbors' families.

Agronomic Technical Services

A wide technical team made up of engineers is tasked with advising members, studying the best options for each case and seeking to optimize productions and increase the profitability of their operations.

Machinery Services

These services are mainly offered from the Chantada and Pol parks, located in the south and center of the province of Lugo, respectively.

Among the available services are: plowing, harrowing, whitewashing, fertilization, manure application, planting, pesticide application, reaping, fodder collection, etc. Complimenting the machinery services, in several delegations, members can have exclusive use of various, smaller implements such as fertilizers, rollers, hedge clippers, potato harvesters, woodchippers, grapevine and fruit clippers, to use them along with their own means.

Fuel and Gas Stations

Aira has three gas stations situated in Chantada and Friol (Lugo), as well as Silleda (Pontevedra). Additionally, they have an agreement with Repsol, by virtue of which, through official distributors chosen in each area, the co-operative home delivers diesel oil at the best price and with a quick, professional service.

Garages

Professional mechanics with long careers in the field take on the repair service for agricultural machinery in garages in Barrela, Chantada y Taboada (Lugo), thereby completing their commitment to comprehensive assistance for members.

Furthermore, the delegation in Chantada has a quick repair garage for automobiles.

Milking Installation

A team composed of six professionals lead this department: two plumbers, three cold milking installation technicians, and a consultant. Together they develop new installation projects as well as the repair and maintenance of existing facilities.

The service offered in this field is complemented with domestic plumbing projects, the installation of photovoltaic panels, pellet heaters, and water heaters.

Commercialization

Through the commercialization of the production of member co-operatives, AIRA promotes social economy and values such as equality, seriousness, payment bonds, and fair trade.

Generating synergies and grouping together volume, the co-operatives can optimize costs and access international markets with nonperishable, greater added value goods, therefore ensuring the growth and sustainability of their operations. At the same time, they contribute to strengthening a project which secures rural population, creates value for the local environment, and improves production practices.

Production of extracts and portions

Aira's technicians create portions adapted to the fodder produced in the dairy and beef farms, respecting the main use of grains and other compounds controlled in the laboratory. All of the products are meticulously analyzed to ensure their quality and traceability. In the facilities in Sarria, both wet and dry fodder mixes are produced, for the livestock farms that have entrusted the co-operative with storing their fodder. Once complemented with the appropriate extracts, they are served daily, allowing the farmers to dedicate themselves exclusively to handling their cattle and leaving the agrarian productions and food preparation in the hands of Aira.

Mixer Wagons

Within their offering is the service delivery of mixer wagons to carry out the mixing of fodder produced on the farms with extracts which come from the feed factory in Taboada, all while following the instructions of the portion recipe elaborated by a nutrition technician. Aira has 22 mixer wagon routes which serve 297 farms throughout Galicia. On the other hand, for over a decade they have commercialized and offered technical assistance for RMH mixer wagons throughout the Iberian Peninsula, a service which is offered year-round and which guarantees that no farm will go without feeding their livestock for even a single day.

Veterinary Clinic and Reproductive Services

They have a large, multidisciplinary team of veterinarians capable of meeting all of the clinical and reproductive needs that the farming operations may require. These professionals see to clinical cases as well as design and execute zootechnical programs aimed at improving animal productivity and wellbeing. Reproductive programs, milk-quality programs, and bovine podiatry programs are some examples of the services offered under this category of services.

6.3.- VISIT 3: ARTELAC CHEESE FACTORY

Owner: Antonio Ferreiro Ferreiro.

Location: Outeiro - Amoexa. Anta de Ulla. Lugo.

Type of Operation: Mixed: dairy cattle with an associated cheese factory + beef cattle + free-range, ecological chicken operation

Herd scale: 70 milking cows + 12 beef cows + 9,600 chickens

Territorial base: 80 hectares Utilized Agricultural Area. 20 hectares of artificial pastures. 20 hectares of natural pastures. 20 hectares of corn and 20 hectares of vegetation and trees: oaks and chestnut trees mainly for silvopasturing

Production: 600,000 L of milk per year

Workforce:

- 2 AWUs to carry out agricultural and livestock activities
- 1 AWU to carry out cheese production: two official cheesemakers, part time
- 1 AWU carries out product distribution
- 1 AWU for the owner

Machine Pool: Planting corn, distributing liquid manure, and ensiling are outsourced to a co-operative. The rest of the tasks are done using their own machinery.

Type of Agri-food Industry Associated: traditional cheesemaking. Transforming all of the milk produced in the farm operation.

A brief history of the farming operation

DATE	EVENT
1980s	Traditional Galician farming operation on a small scale (around 20 heads) mixed of dairy and beef, whose owners were the parents of the current owner.
1990	Integration of the son, current owner of the operation. Mixed operation with 25 dairy cows and 8 beef cows.
1994	Launch of the cheese factory. Production 150,000 kg/year
1999	Execution of new stable: Phase 1
2002	Execution of new stable: Phase 2
2004	Expansion of cheese factory. Production 550,000 kg/year
2005	Execution of new stable: Phase 3
2012	Creation of Multifunctional Center: exhibition and sales, educational activities, cheesemaking workshop, informational activities, etc.
2014	Energetic reconversion: installation of heat recovery systems, biomass sanitary water heater, wind turbine, and photovoltaic solar panels
2020	Execution of pavilion for 9,800 free-range, ecological chickens
2021	Launch of the free-range, ecological chicken operation

Carrying out ¨Coaching on the Move¨ on a section of the Way of St. James WANDERCOACHING

From Lugo to Santiago. 25 June 2022

Thomas Mirsch. FUEAK. Germany
Pablo Asensio. FUEAK. Bavaria, Germany.
Elena López Colmenero. Juana de Vega Foundation
Florentino Díaz. University of Santiago de Compostela

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Carrying out ¨Coaching on the Move¨ on a section of the Way of St. James WANDERCOACHING

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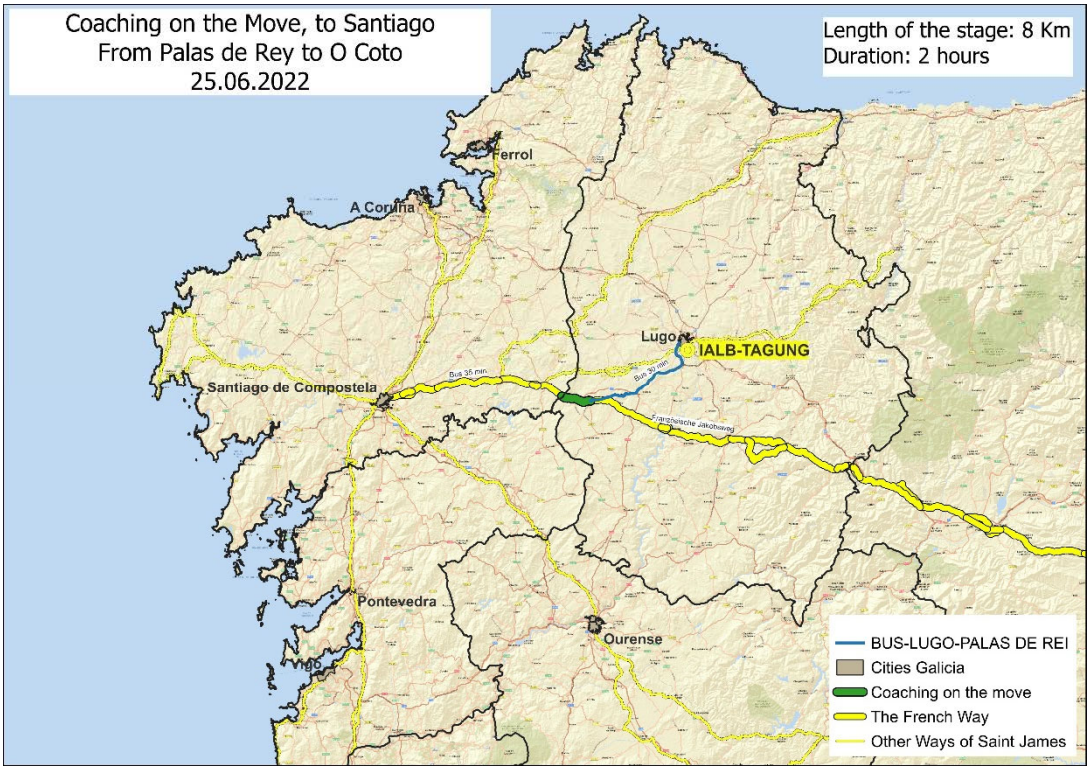
1.- INTRODUCTION

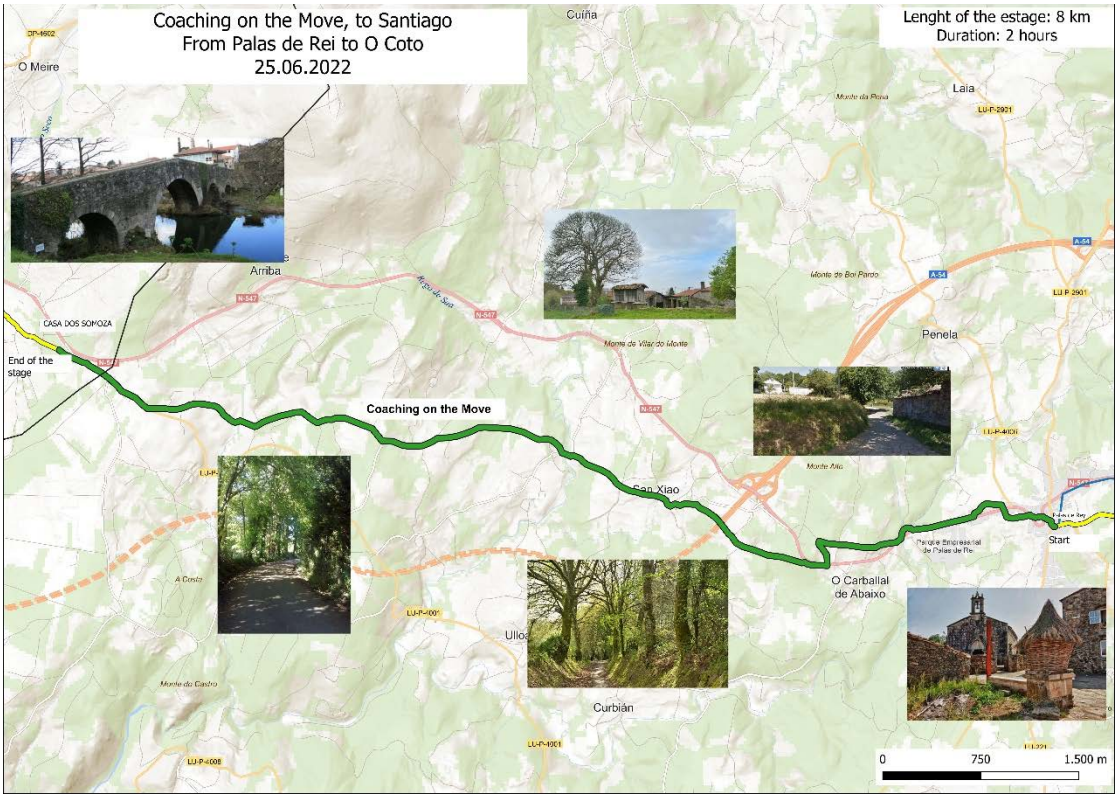
“Coaching on the Move”, Saturday 25 of June 2022, while walking a 2-hour section of the Way of St. James, approximately 8 km. The activity was carried out in three languages: Spanish, German, and English.



2.- CONCEPT

In Coaching on the Move, one person advises a partner and in turn they are advised by their partner.

As the IALB-EUFRAS-SEASN International Congress took place in Lugo, close to the end of the world-famous Way of St. James, what better way to acknowledge this famous path in nature than by walking part of the pilgrims’ way in our wandercoaching activity. The following map illustrates the path that was walked:



We linked the Way of St. James with our topic of rural advising and we experienced a special type of advising, Coaching on the Move. As far as we know, this was the first time Coaching on the Move was practiced in Spain.

3.- COURSE OF THE ACTIVITY

Coaching on the Move combines professional advising with a walk through nature. Walking also puts thoughts in motion.

The everchaning perspectives provide a boost and stimulate new focuses for solutions.

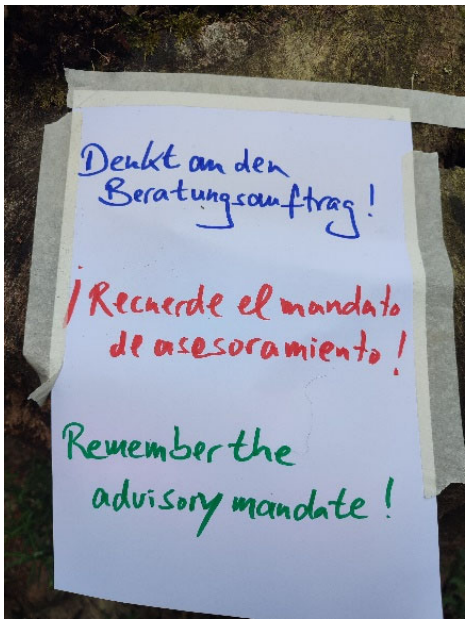
Problems and challenges can be classified more openly, and seen under a new light. This helps to let go and creates room for something new.

The goal of Coaching on the Move, like any good advising, is to obtain new clarity, develop new perspectives, or be able to act on upcoming cahnges with the help of ideas for solution. There are many challenges to overcome in advising.

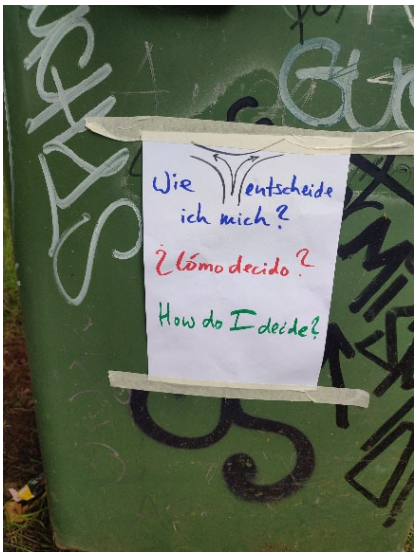
Set out on the path of Coaching on the Move!

3.1.- INSTRUCTIONS ON THE WAY

Throughout the course, participants would receive reminders and helpful ideas to apply in this innovative advising method. Normally they were hung from trees along the path, written in the three languages.




Seid ihr noch beim Anliegen des Klienten?
¿Siguen con la preocupación del cliente?
Are you still with the clients request?


Wie entscheide ich mich?
¿Cómo decido?
How do I decide?

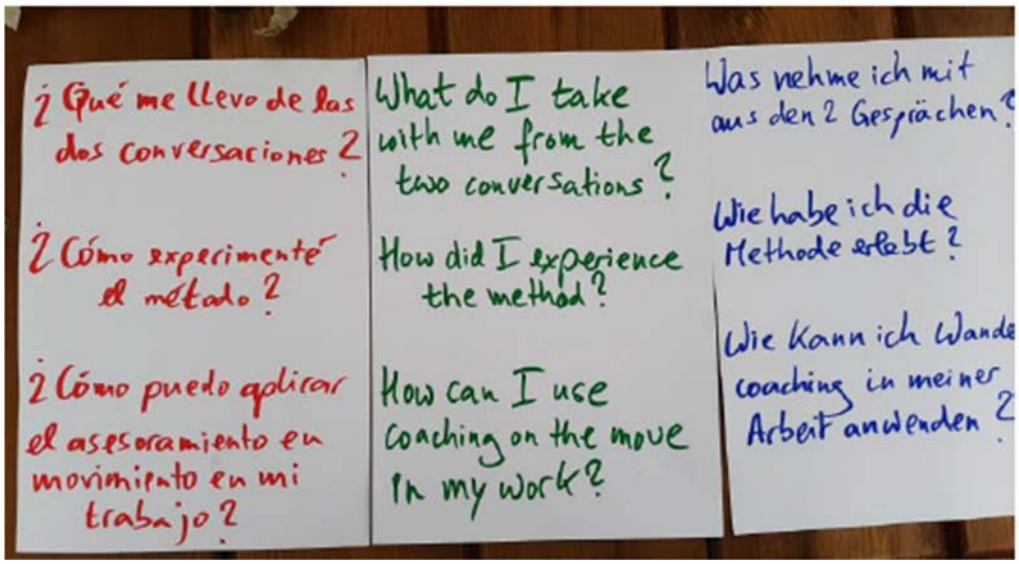

Blick zurück:
→Erkenntnisse bis hier
Blick voraus:
→nächste Schritte
Mirar hacia atrás:
→Resultados hastaquí
Mirar hacia adelante:
→siguientes pasos
Look back:
→Insights up to here
Look ahead:
→ next steps


¿Qué me llevo de las dos conversaciones?
¿Cómo experimenté el método?
¿Cómo puedo aplicar el asesoramiento en movimiento en mi trabajo?

Halfway through the walk, there was a break to rest and snack, to be prepared for the second half of the walk.

4.- GROUP EVALUATION AT THE END OF THE COACHING ON THE MOVE

After completing the walk and advising in partners, participants were first grouped by languages to futher discuss their experience during Coaching on the Move. Then, the entire group of participants shared their findings and opinions.



5.- FAREWELL LUNCH IN THE SAN MARTIÑO PINARIO MONASTERY, SANTIAGO

6.- LIST OF PARTICIPANTS

	Apelidos	Nome	Institucion	Pais	Idioma
1	Asensio	Nelli	Verband der bayerischen Lehr- und Beratungskräfte - Ernährung, Ländlicher Raum, Agrarwirtschaft e.V.	Deutschland	de
2	Bauer	Ingeborg	Vizepräsidentin der IALB	Deutschland	de
3	Becker	Jürgen	Regierungspräsidium Gießen	Deutschland	de
4	Berg	Ernst	Landesanstalt für Landwirtschaft, Ernährung und Ländlichen Raum (LEL)	Deutschland	de
5	Berger	Elfriede	Hochschule für Agrar- und Umweltpädagogik	Österreich	de
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21	Kügler	Michael	EUFRAS	Belgien	de
22	Ladinig	Elisabeth	Ländliches Fortbildungsinstitut (LFI Kärnten)	Österreich	de
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28	Stockinger	Barbara	LK Oberösterreich	Österreich	de
29	Stöckli	Anton	Bundesamt für Landwirtschaft	Schweiz	de
30	Wiesend	Regine	Bayerisches Staatsministerium für Ernährung, Landwirtschaft und Forsten	Deutschland	de
31	Williges	Ute	Landesbetrieb Landwirtschaft Hessen	Deutschland	de
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33	Zauner	Martin	Landwirtschaftskammer Niederösterreich	Österreich	de
34	Zurbruegg	Corinne	AGRIDEA	Schweiz	de
35	Cimermane	Līga	EUFRAS	Latvia	en
36	Cuesta Arenas	Yaite	Southern Agricultural and Horticultural Organization (ZLTO)	the Netherlands	en
37	Dzelme	Anita	Latvian Rural Advisory and Training centre / EUFRAS	Latvia	en
38	Fry	Patricia	Berner Fachhochschule, HAFL	Schweiz	en
39	Gibson	Mark	Teagasc	Ireland	en
40	Nyinaku	Felix Owusu	Giving Hour Foundation Ghana	Ghana	en
41	Paree	Peter	Southern Agricultural and Horticultural Organization (ZLTO)	the Netherlands	en
42	Sarke-Fedjajeva	Linda	Latvian Rural Advisory and Training Centre Ltd.	Latvia	en
43	Spaans	Annick	ZLTO	Nederland	en
44	Vér	András	Széchenyi István University	Hungary	en
45	Vona	Viktória Margit	Széchenyi István University	Hungary	en
46	Asensio	Pablo	Staatliche Führungsakademie für Ernährung, Landwirtschaft und Forsten	Deutschland	es
47	Barrasa Rioja	Martin	Universidad de Santiago de Compostela	España	es
48	Diaz Rodriguez	Florentino	Universidad de Santiago de Compostela	España	es
49	JAKAB GABORNE	AGNES	HUNGARIAN CHAMBER OF AGRICULTURE	HUNGARY	es
50	Lindtner	Mara	Ländliches Fortbildungsinstitut Österreich und Landwirtschaftskammer Österreich	Österreich	es
51	López Colmenero	Elena	Fundacion Juana de Vega	España	es

CONGRESS CONCLUSIONS

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1.- NEED FOR EXCHANGE AND COOPERATION

One prerequisite for successfully applying the innovative ideas is the exchange of knowledge and the cooperation in matters of rural extention. In the meeting which took place within the framework of the IALB-TAGUNG 2022 GALICIA, which was celebrated for the first time in Spain, the value of this exchange was clearly demonstrated.

It was shown that in order to put into practice innovative ideas, especially in agriculture, it is of the utmost importance the exchange of knowledge as well as cooperation among the many actors of the system.

1.1.- SUPPORT FOR THE CREATION OF NETWORKS

The AKIS can contribute significantly in this sense.

These systems of agricultural knowledge are formed essentially by the agents, institutions, and entities in the realm of training, rural extension, research, and producers of the agrarian and other related sectors.

Networking by this range of actors is what contributes to the development of rural areas, although it is also associated with many other challenges.

2.- THE ROLE OF ADVISING SERVICES

In the different Congress Workshops, the importance of networks, forums, and exchanges among advisors was demonstrated, such as the very exchanges which take place annually at each IALB-Tagung Congress, on this occasion in Galicia.

The speakers, who presented AKIS from other European countries, highlighted the activities which facilitate the flow of information among AKIS actors, which tie research to practice in order to facilitate dissemination of innovation, and improve the exchange of information among AKIS agents.

The new CAP, in order to be able to respond to the current and future demands of agriculture, wants to drive rural extension services especiallly oriented towards participative innovation, supported by multiple actors of different disciplines.

The AKIS' new focus implies a close colaboration among all agents of the sector. The whole process, especially in Galicia, should go hand in hand with the recognition and valuing of the role of advisors within rural development.

The Congress was without a doubt the first forum in Galicia where private and public advisors; researchers from public research centers and their managers; trainers from professional training institutions as well as universities; and representatives of Galician, Spanish, and European administrations sat down and met together.

3.- NEED FOR QUALIFICATIONS

The role of advisors should go beyond mere problemsolving or processing subsidies and grants, and for this, advisors will need tools that help them to carry out their work.

The demands of the new CAP or digitalization will in the coming years be some of the challanges which advisors must face. In addition to professional experience, solution orientation and conflict management are also indispensable skills for advisors.

It is necessary to establish a program for training and perfecting rural advisors, like innovative agents, that is certified on a EU level, and that guarantees a technical qualification which is methodologically solid.

In this sense, the training program CECRA is a fine example, already established in Spain and other countries, but it needs to be generalized and recognized by the EU in order to contribute to and improve the development of advising skills within a European network.

4.- DIGITAL TOOLS FOR DEVELOPMENT

The current trends are clearly moving towards Big Data, SIGs, platforms, and hybrid extension services. Collected data –be it from satellites or sensors—are more and more available. The use of this data and the associated possibilities offer a lot of potential.

Advisors will have to be able to take on the challenge of digitalization without leaving anyone behind.

In order to better anticipate the new needs of farmers, the demands of society, and the political evolution, topics such as development and organizational management will be at the forefunt in the future.

5.- RURAL DEVELOPMENT

As a result of all the activities carried out during the event, it became clear that the first, and most important objective of all actions derived from the CAP and EU is to achieve innovation, to improve the profitability of farming operations and the activation of resources for the rural, under conditions which respect the environment, heritage, animal wellbeing, and the health and safety of people.

Finally, it was also clear, as a result of the above, that the objectives of Rural Development policies cannot be fully achieved without an integrated advisory system for innovation and development, with adequate qualifications and training, working in a network with the rest of the actors in the AKIS, training, research and productive activity.

LIST OF PARTICIPANTS AT THE EVENT

N	Surname	Name	Institution	Email	City	Country
1	Alibés Biosca	Joan	Beealia SC	beealia@gmail.com	Meira	Spain
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