

NDA Spain

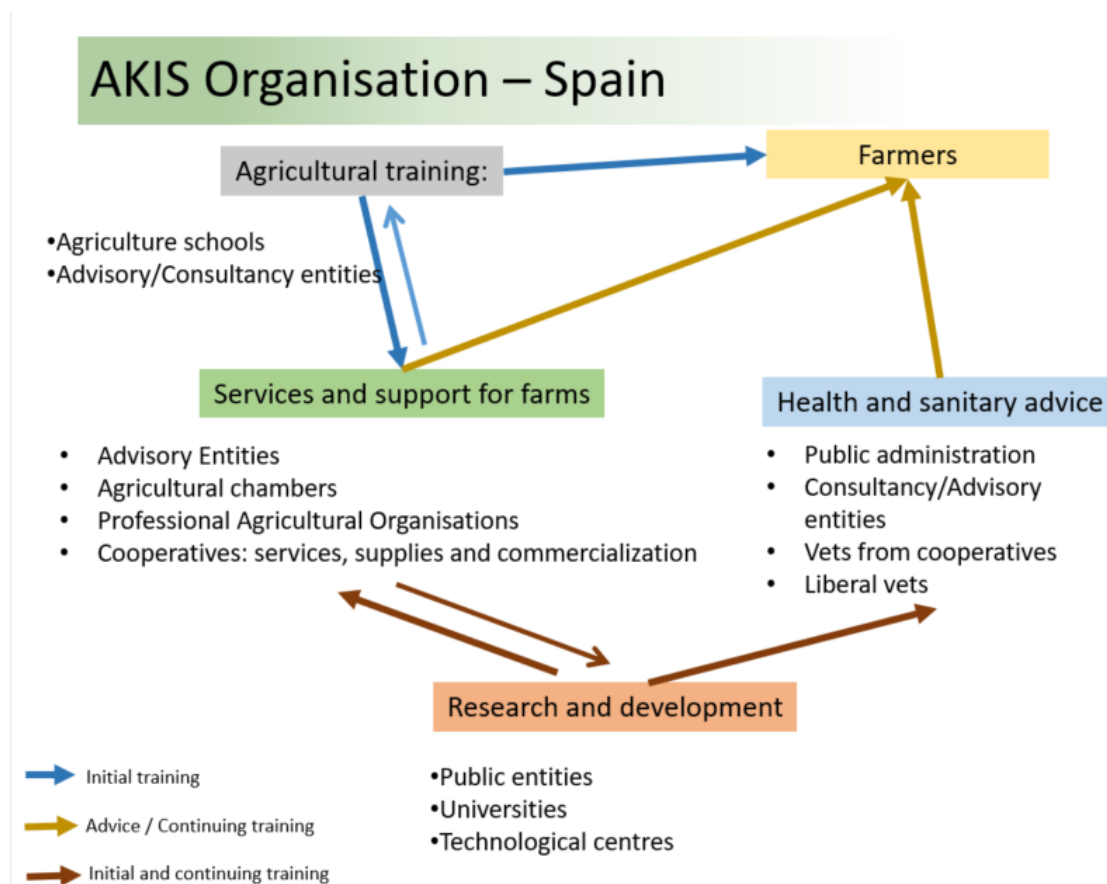


Figure 43. Dairy Agricultural Knowledge & Information System (AKIS) in Spain

The Spanish political and territorial organization, based on a decentralized system in which the regions have much of the responsibilities and decision-making powers, meaning that the AKIS system is configured differently to other countries in the European Union. The strategic decision-making and funding level includes structures linked both to the central government and to the regions (because the decentralized administrative system).

The AKIS structure consists of many sectorial institutions and organisations:

- Political and administrative organisations responsible for policy creation (National and 17 regional governments)
- Research and education sector (National and regional)
- Other sectorial organisation (technology centres, farmer unions, agro-food cooperatives, producer associations and federations of producers, agricultural training centres, etc.)

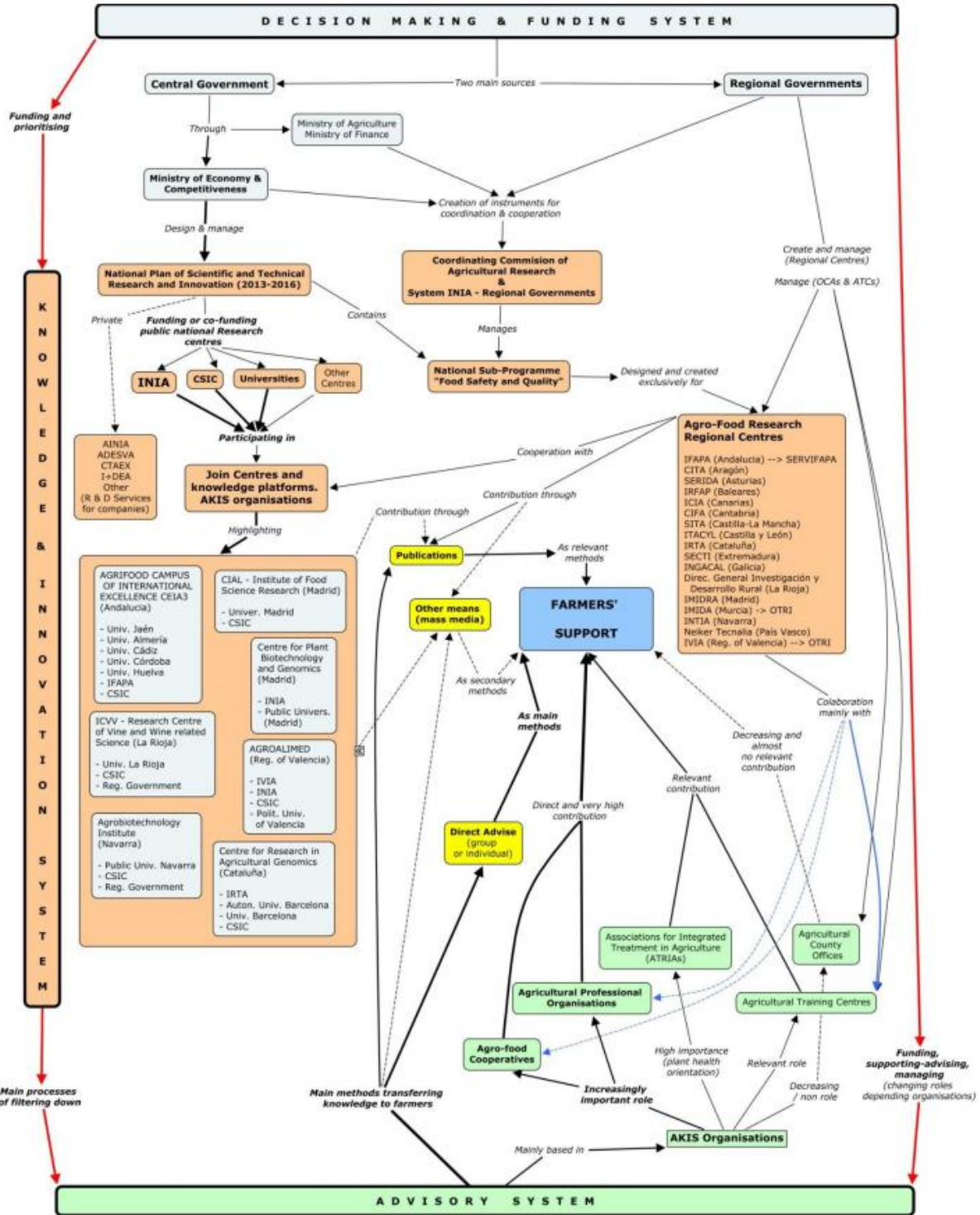


Figure 44. Agricultural and Knowledge Information System Diagram of Spain (source: PRO-AKIS project)

The network of agents that are going to be part of AKIS in this project are mainly, but not all, from the Basque Country. There is an entity that is from Navarra and another one that is from Catalunya. The NDA is formed by 18 members (Figure 45) and although not all the agents are represented at a national level, as it is formed by 2 autonomous communities, we could call it National Dairy AKIS.

- 6 pilot farms
 - 5 advisor institutions (4 Basque Country, 1 Navarra): LORRA, ABERE, ABELUR, LURGINTZA, INTIA. Abere also offers clinical and veterinary services and INTIA also offers courses and conferences aimed at the agri-food sector.
 - 1 entreprise: Lursail S.L
 - 1 cooperative suppliers GUVAC
 - 2 Research institutions: NEIKER (Basque Country) and IRTA (Catalonia)
 - 1 breeders federation: EFRIFE
 - 1 Milk cooperative KAIKU
 - 1 Public company HAZI (instrumental entity of the Basque Government)
 - (1 Spanish Agri-food cooperatives. (Beef Milk Section) not confirmed yet)
- We have a relationship through the federation of cooperatives of the Basque Country, since management centres such as Lorra are part of it as they are service cooperatives. We have contacted them, but as we are on holiday period, we have not received any answer yet.*

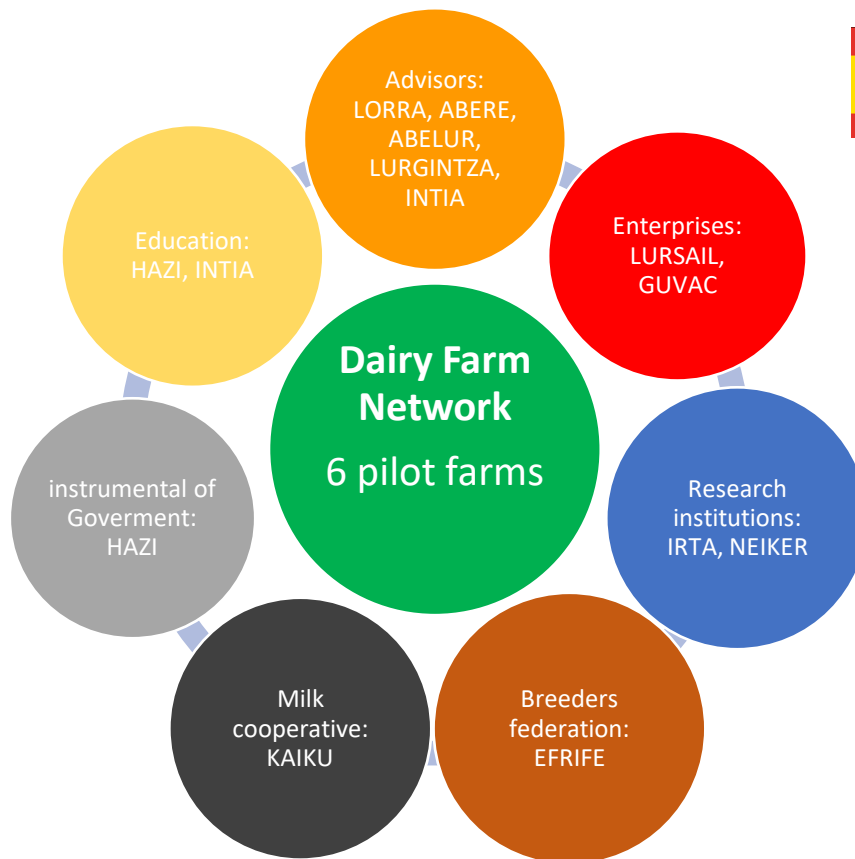


Figure 45. The national dairy AKIS of Spain in this project consists of 6 pilot farms and 12 non-farmer institutions each with their own expertise.

Below, each member will be described into more detail.

Pilot farms

The 6 pilot farms are spread over (Spain/Basque Country) and are depicted in Figure 46.



Figure 46. Location of the 6 pilot farms in Spain

1. Ugarte Berri S.C. (Zizurkil)
 - Volume of milk production:
1.964.648 kg per year (1907648 litres/year)
 - Dairy cows:
164 (dry cows included)
 - Reason to include this farm:
This company is very efficient, profitable, with the succession resolved (2 recently incorporated: son and daughter) and in recent years they have made investments to produce more sustainable.
2. Zubeltzu Torre SC (Itziar)
 - Volume of milk production:
1.158.966 kg per year (1.125.341 litres/year)
 - Dairy cows:
99 (dry cows included)
 - Reason to include this farm:
Efficient farm, with generational change and making investments to modernise the farm.
3. Sarobe Farm S.L. (Valle de Carranza)
 - Volume of milk production:
721.000 kg per year (700.000 litres/year)
 - Dairy cows:
65 (dry cows included)
 - Reason to include this farm:
Because it is a newly installed farm of young farmers, with all the challenges to solve. Because of their training and professional capacity.
4. C.B. El Haya Matienzo (Valle de Carranza)
 - Volume of milk production:
2.255.198 kg per year (2.189.513 litres/year)
 - Dairy cows:
198 (dry cows included)

- Reason to include this farm:
Because the farmers changed the management model of their old farms, moving to a partnership of two farms of 4 farmers in order to have a better quality of life and technical-economic efficiency.
5. Armoki S. Coop. (Lukiano)
- Volume of milk production: 2.142.472 Kg per year (2.080.070 litres/year)
 - Dairy cows:
174 (dry cows included)
 - Reason to include this farm:
The farmers are young, motivated, and eager to innovate continuously. They are expanding the herd and the farm itself, with the aim of increasing milk production while maintaining good animal welfare and waste management. Also make important investments in order to achieve more sustainable livestock farming.
6. Behi-Alde S. Coop. Ltda. (Aramaio)
- Volume of milk production: 5.818.366 Kg per year (5.648.899 litres/year)
 - Dairy cows:
550 (dry cows included)
 - Reason to include this farm:
It is a cooperative in which there is a continuous replacement of members, allowing the incorporation of young people with innovative ideas. It has a high percentage of genotyped cows, allowing the selection of cows with A2A2 milk and other traits of interest. They also do rotative grazing throughout the year, achieving a more sustainable production.

Non-farmer stakeholders

Education:

1. Fundación HAZI

HAZI offers you a wide range of training actions born from the networking and close collaboration of institutions, sectorial and territorial agents and professional associations of the food and wood value chain in the Basque Country. An offer that is characterized by being on demand and whose objective is to respond to current professionals and new incorporations in their qualification needs to face new challenges and strategies.

The courses and training itineraries offered can be either face-to-face or in webinar format, in virtual classrooms or online training platforms, and are complemented with practical sessions, technical visits and individualized or group coaching methodologies.

Intensive Training

Courses aimed at people who wish to start a business initiative and whose main objective is to promote their incorporation in the primary sector and the rural and coastal environment through this economic activity.

Continuous Training

Wide range of continuous training offerings structured by sub-sectors and training areas.

2. INTIA

It offers annual courses and conferences aimed at the entire agri-food sector. They are classified into four thematic groups:

- Incorporation of young people into agricultural activity.
- Agri-food industry
- Improvement in agricultural and livestock activities
- Agri-environment

INTIA Virtual Campus: more than 1,600 professionals related to the agricultural sector have accessed this digital platform as users and have participated in a blended course or have downloaded some documentation of interest in any of the free access spaces of the virtual campus.

Advisors:

1. BASQUE COUNTRY ADVISORS

It is formed by 5 consulting entities and 4 of them offer services to dairy cattle: LORRA, ABERE, ABELUR AND LURGINTZA.

- LORRA: represented by Javier Garro, head of the animal production department and Jon San José, adviser in dairy cattle.
- ABERE: represented by Lurdes Nafarrate, head of the consultancy department and Jon Laza, adviser in dairy cattle.
- ABELUR: represented by Imanol Arrieta president of Abelur and farm advisor.
- LURGINTZA: represented by Arantzazu Martiarena, manager of Lurgintza and Itziar Rezola farm advisor.

In the Basque Country, LORRA, with the collaboration of ABERE, ABELUR, AGA and LURGINTZA, are the only Entities Accredited by the Basque Government as Advisory Entities, due to their long history (more than 30 years) in advising and transferring knowledge to farms and the agronomic sector. Producers', farmers' and stockbreeders' associations are members of these bodies, so the relationship with the sector is very close.

The Management Centres (as they are known) or advisory entities are non-profit cooperatives specialized in advising the agri-food sector, offering services both to individual

farms and to professional associations of producers and cooperatives. Therefore, the structure of the management centres brings together producers from different activities. They are important interlocutors with the Administration and actively intervene in:

- Sectoral advisory boards
- Implementation of technical, health, hygiene, and sustainability programmes.
- Capturing the sector's training needs
- Monitoring and tutoring of new projects for incorporation into the sector.
- Its proximity to the sector due to its direct and trustworthy relationship gives it knowledge of the sector's situation, needs and perspectives.
- Participation in State and European projects.

Services to farms:

- Technical and Economic
- Fiscal, labour and legal
- Sustainability:
 - Economic: improve competitiveness, resilience of farms and market orientation.
 - Social: generational replacement, quality of life, employment, substitution service, training, ...
 - Environmental: sustainable management of organic matter, energy efficiency, environmental footprint., legal requirements
- Community Agricultural Policy (CAP) and current regulations. Measures included in the Rural Development Plan
- Projects: investments, search for financing and agents to carry out the projects

2. INTIA- Transfer and innovation in the agri-food sector.

Represented by Mikel Nazabal Livestock Advice Coordinator

INTIA is a public company, attached to the Department of Rural Development and Environment of the Government of Navarre, integrated in the Public Business Corporation of Navarre (CPEN)

The main objective of INTIA is to provide advice to farmers based on applied research. Thus, it also focuses many resources on back-office activities, such as own experimentation activities and also active participation in R&D&I projects. The findings of the own experimentation as well as the results from projects support the daily work of advisors working with farmers. Thus, knowledge transfer is provided through direct advice to farmers and farmers' cooperative and also through demonstrations, group dynamics, events and different dissemination tools.

Spheres of action for livestock advisory services:

- Legal requirements
- Beneficial livestock farming practices
- Measures included in the Rural Development Plan
- Integrated pest management
- Advice on first installation
- Organic production
- Community Agricultural Policy
- Emissions and waste management
- Short chain development and distribution
- Improving competitiveness

Enterprise:

1. LURSAIL

Represented by Amaia Garrastazu, Lursail coordinator.

Lursail S.L. was created in 2007 by the 5 Management Centres of the Basque Country and the Hazi Foundation with the mission of achieving a cohesive organisation and management systems that support the process of transformation and evolution of the Management Centres (Advisory Entities). Its trajectory over the last 14 years shows the will of its members to work in cooperation to generate synergies, share and transfer knowledge and information. Throughout all these years, it is worth highlighting the participation in different European projects in the field of sustainability and climate change, establishing alliances with European networks and agents.

2. GUVAC S. COOP.

Contact: Pedro Lorente Ortillés.

Founded thanks to the union of several cooperatives of Valle de Carranza-Karrantza Harana more than 50 years ago. Among its objectives are the purchase of raw materials for livestock feed and its transformation into compound feed for its commercialization, as well as the provision of clinical and reproductive veterinary advisory services, advice on animal nutrition, and the supply and assessment in different equipments (milking parlors and robots of *DeLaval* brand) and materials (animal medicines, phitosanitarios...) for the development of livestock farms.

Researchers:

1. IRTA (CATALONIA)

Represented by Marta Ruiz, specialist researcher from the Life Cycle Assessment Team at Sustainability in Biosystems Group

IRTA is a research institute owned by the Government of Catalonia (Spain) ascribed to the Ministry of Climate Action, Food and Rural Agenda. It is regulated by Law 04/2009, passed by the Catalan Parliament on 15 April 2009, and it is ruled by private regulations. It takes part of the CERCA centres system of Catalonia.

IRTA's mission is to contribute to modernising, improving, boosting competitiveness, and fostering sustainable development in the sectors of agriculture, food, agroforestry, aquaculture, and fishing, as well as in all areas of activity directly or indirectly related to the supply of healthy, high-quality foodstuffs to end consumers, while also contributing to food safety and safe processing of foodstuffs and in general enhancing the health and well-being of the population.

Its general objectives are to promote research and technological development in the area of agri-food, to facilitate the transfer of scientific advances and to evaluate its own technological advances whilst seeking the utmost coordination and collaboration between the public and private sectors.

Since it was founded, IRTA has sought to establish long-lasting collaboration agreements with other public bodies that operate in Catalonia in the areas of technological research and development. This approach has led to the creation of a consortium network of centres (involving IRTA, universities, CSIC, public-sector bodies, etc.), which is, in effect, an R&D cooperative system.

Since 2015, IRTA holds the Human Resources Strategy for Researchers (HRS4R) excellence seal, awarded by the European Commission.

IRTA's functions are outlined below:

- Experimental Research and Development (R&D). IRTA has a portfolio of running projects that are financed by the Institute itself, by regional bodies (CIRIT, etc.), by state bodies (National R&D Plan, INIA, etc.), and by international bodies (EU programmes, etc.). In addition, some of IRTA's R&D activity is funded by the private sector by way of contractual research.
- Technology Transfer. IRTA's scientific activity is inspired by a vision of applicability and the evaluation of scientific advances.
- Contractual Research. IRTA offers its scientific capabilities to companies, associations and/or collectives for the evaluation, comparison or development of products, services or procedures. A research contract precisely sets out mutually agreed objectives, the methodology to be used and estimated time frames, along with the technical, financial and legal obligations of each party. Confidentiality is guaranteed in these kinds of contracts and when justified by the nature of the project.
- Technical assistance and specialist training. IRTA can provide specialist technical and consultative assistance to associations, collectives, companies and agents in the sectors in which it operates by means of contractual arrangements".

2. NEIKER

Represented by Roberto Ruiz, Olatz Unamunzaga, Pilar Merino and Oscar del Hierro, Researchers.

NEIKER, the Basque Institute for Agricultural Research and Development, is a non-profit public company attached to the Department of Economic Development and Competitiveness of the Basque Government. NEIKER is committed to the improvement of the productivity, competitiveness, and sustainability of the agricultural, livestock and forestry farming systems, particularly within the Basque Country. To do so, NEIKER develops innovative and transferable knowledge and solutions that add value to the agri-food sector and improve its competitiveness with criteria of respect for the environment, ensuring its current and future sustainability and actively contributing to the economic and social development. Regarding dairy farming, through the participation of the Departments of Animal Production and Conservation of Natural Resources, Neiker provides the dissemination of research results related to the following issues: genetics, nutrition, grazing management, assessment and mitigation of environmental impacts, and sustainability assessment.

Farmer based organisation:

1. EFRIFE

Represented by Larraitz Sasieta, federation coordinator.

EFRIFE is the Federation of Holstein Cow Breeders of the Basque Country, composed of the three genetic improvement associations of the three historical territories, ASGAFAL, BIFE and GIFE. Between the three associations, they group together 74% of the lactating cows in the Basque Country and 92% of the milk produced in the Basque Autonomous Community. Among the aims of this Federation are "To carry out, promote and participate in all kinds of studies on the Friesian breed" and "To promote, encourage and, if necessary, develop all kinds of services to improve the Friesian breed", and that is why it is identified as a relevant agent at regional level.

EFRIFE is integrated in the Confederation of Spanish Holstein Breed Associations, CONAFE, a state-wide entity made up of the Associations and Federations of the Autonomous Communities, one for each Autonomous Community, whose main objectives have as a common denominator the development of programs oriented to the improvement and selection of the Holstein Breed.

Dairy industry:

1. KAIKU COOPERATIVA manager of the company
Represented by Iñigo Aranburu, company manager. It is a livestock cooperative with more than 300 farms located in the Basque Country, Navarra, Burgos and La Rioja, dedicated to the collection, processing, storage and transport of our milk. The corporate purpose is the collection, transport, storage, processing, and sale of cow's milk obtained in the cooperative's farms or those of its members. The cooperative is made up of more than 300 livestock farms with around 800 workers, obtaining more than 260 million litres of milk. By participating in the processing industry, we integrate the entire value chain, allowing us to maintain the primary sector of our land, generating jobs and sustainably preserving a natural environment.
2. Spanish Agri-food cooperatives. (Beef Milk Section) NOT CONFIRMED
Cooperativas Agro-alimentarias (formerly Confederación de Cooperativas Agrarias de España) is the organisation that represents and defends the economic and social interests of the Spanish agricultural cooperative movement.
Cooperativas Agro-alimentarias is made up of 16 Federations and Territorial Unions of Agricultural Cooperatives (FUTs) and Agrocantabria (2nd degree Cooperative of Cantabria), which offer their services and have their scope of action in their respective Autonomous Communities.
Thus, Cooperativas Agro-alimentarias is the common body that represents the Spanish cooperatives of all the Autonomous Communities in Spain before the national Administration, in the European Union and before the rest of the social and economic agents of the sectors in which the agricultural cooperatives develop their activities, in order to join efforts to defend the interests of the farmers and stockbreeders.
In addition, Cooperativas Agro-alimentarias provides training, information and advisory services through its offices in Madrid and Brussels, thus contributing to improving the efficiency of agricultural cooperatives in the achievement of their economic, social and human goals.
The mission of Cooperativas Agro-alimentarias de España is the promotion, representation and structuring of the Spanish agri-food cooperative movement, promoting a business cooperative model, professionalised, with a relevant dimension, generating value and competitive, which contributes to improving the profitability of member farmers and livestock farmers and to the sustainable development of the agri-food sector and the rural environment.

Governement

1. FUNDACIÓN HAZI
Represented by Mentzia Otxoa de Zuazola, Director of Entrepreneurship and Innovation. Instrumental entity of the Basque Government. Its function is to coordinate and catalyse strategic projects to boost the competitiveness and sustainability of the food and forestry value chain, as well as to dynamize the rural and coastal environment of the Basque Country. HAZI's mission is to be a useful and efficient instrumental entity with the capacity to provide added value to our main client: the Basque Government. In addition, we are a tool at the service of the agri-food sector, and we support the sustainable development of the rural and coastal environment, the professionalization of people and the quality of products.
The services offered to the food supply chain are training, entrepreneurship, innovation and digitalization.

In this way, HAZI contributes to generate and consolidate projects, companies and competitive and sustainable jobs in the food and wood value chain and in the rural and coastal environment of the Basque Country, through 4 main areas of action:

- - Coordination and support to entrepreneurial projects.
- - Specialized training aimed at companies and entrepreneurs.
- - Activation of the innovative potential of the chain and the environment.
- - Assistance in the definition of financial support tools.

Facilitation methods

What have we done?

We held the first NDA on November 12th in Lorra (Lezama). 13 people attended the meeting: 11 farm advisors, 2 Friesian breed association coordinators and the coordinator of the management centres.

During the meeting, the results of a consultation carried out with farmers in 2021 on the challenges and concerns of the future were presented, and the main needs and solutions were identified in the workshop. We also analysed the situation of livestock farmers in terms of their economic situation and prospects. But above all we focused on the environmental aspect, the results of dairy farms obtained in different projects in which the Basque Country's advisory centres participate.

What was easy?

The meeting was very interactive and constructive. The participants from the different entities have been working together for a long time, so the participation was high.

What was difficult?

The difficulty has been to hold other NDA meetings with other NDA agents, due to the COVID issue and because the technician who participated in the R4D project has left Lorra to work in his native region.

For all these reasons, the NDA meetings to be held in 2022 have been postponed to the second semester.