

NDA Finland

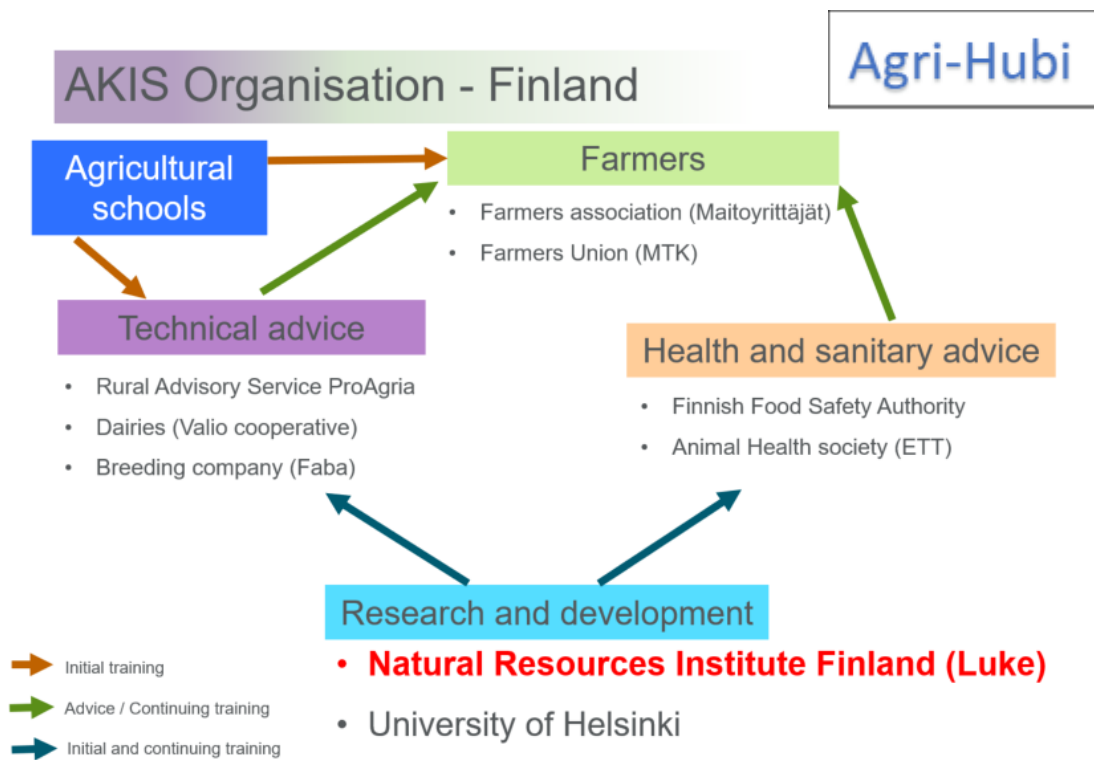


Figure 10. Dairy Agricultural Knowledge & Information System (AKIS) in Finland

Finland has a regional dairy AKIS that consists of 18 members (Figure 11):

- 7 pilot farms
- 2 advisory institutions: ProAgria, Työteho-seura
- 2 enterprises: Hankkija, Lantmännen
- 2 research institutions: Luke, University of Helsinki
- 1 farmer-based organisation: Maitoyrittäjät
- 1 dairy industry institutions: Valio
- 1 government institution: Food safety authority, Ministry of Agriculture and Forestry
- 2 education institutes: University of Helsinki, Häme University of Applied Sciences



Figure 11. The regional dairy AKIS of Finland consists of 7 pilot farms and 11 non-farmer institutions each with their own expertises.

Below, each member will be described into more detail.

Pilot farms

The 7 pilot farms are situated in the distance of 400 km in Finland and are depicted in Figure 12.

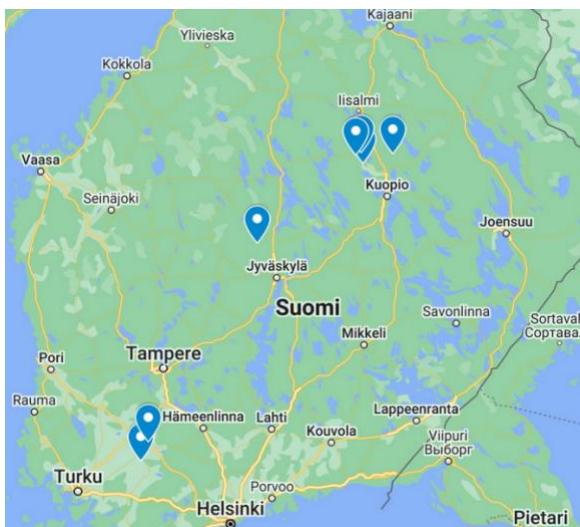


Figure 12. The location of the 7 pilot farms in Finland.

The seven pilot farms are spread over Finland.

1. Marianne ja Marko Mänki (Jokioinen)
 - Volume of milk production:
1 109 000 kg per year
 - Dairy cows:
127
 - Reason to include this farm:
Farmers of this family farm are very active in farmers groups, also in local and national level. They are open to new views and ready to discuss actively.
2. Juho Nikkanen (Somero)
 - Volume of milk production:
1 500 000kg per year
 - Dairy cows:
125
 - Reason to include this farm:
The farmer is young, very eager to develop the farm and open to new things, future oriented.
3. Pellervo Kässi (Uurainen)
 - Volume of milk production:
910.000 kg per year
 - Dairy cows:
90
 - Reason to include this farm:
The farmer has university education in agricultural economics, is active and interested in techniques (merging the data from the barn and fields), independent thinking.
4. Raimo ja Riitta Haapalainen (Maaninka)
 - Volume of milk production:
350 000 kg per year
 - Dairy cows:
40
 - Reason to include this farm:
Whole time grazing for cows, actively thinking how to improve the conditions of cows
5. Heli ja Markus Rytönen (Maaninka)
 - Volume of milk production:
2300000 kg per year
 - Dairy cows:
210
 - Reason to include this farm:
Young farmers, developing big farm, active in social media.
6. Niko ja Hanna Mähönen (Maaninka)
 - Volume of milk production:
3000000 kg per year
 - Dairy cows:
284
 - Reason to include this farm:
Fast developing and capable to cope with fast changes, modern big farm.

7. Juha ja Jaana Roivainen (Maaninka)
 - Volume of milk production:
259300kg per year
 - Dairy cows:
30
 - Reason to include this farm:
The farm has been developed and will expand in near future. Transfer of the farm to the next generation. All year-round outdoor exercise yard.

Agri-Hubi

AgriHubi is a network actor gathering Finnish agriculture and horticulture operators such as farmers, advisors, educators, and researchers to collaborate. The aim is to improve farmers' profitability with the long-term scope. Agri-Hubi focus on stronger business management skills, to support smart farming uptake, and better use of data sources and data reservoirs.

Non-farmer stakeholders

Education:

1. University of Helsinki
The University of Helsinki is Finland's largest and oldest academic institution and an innovative centre of science and thinking. Since 1640, we have contributed to the establishment of a fair and equal society that is considered one of the best in the world. Today, our multidisciplinary academic community solves problems that affect us all – with the power of knowledge, for the world.
2. Häme University of Applied Sciences
Häme University of Applied Sciences (HAMK) is a multidisciplinary, workplace-orientated higher education institution. HAMK offers 29 Bachelor's degree programmes, 13 Master's degree programmes and professional teacher education. Eleven of the degree programmes are taught in English. HAMK's seven campuses are situated centrally in the greater Helsinki metropolitan area of southern Finland. HAMK's roots stretch back to 1840, when agricultural education began at the Mustiala Campus.

Advisors:

1. ProAgria
At ProAgria, we are experts in agriculture and rural business. We offer our clients our services and expertise to further develop and grow. Our expertise lies in integrating business management, finance and production through teamwork, and we promise to always bring reliable partnership, vision and solutions to the table. We're constantly focused on expanding our expertise and gathering information from near and far to ensure that our clients always have access to the latest in the field, and we can proudly say our expertise also includes finding the right solutions to rapidly changing situations.
2. TTS Työteho-seura
TTS is the leading innovator of work in Finland. TTS is an independent corporation which provides nationwide training and development services to the clients. The goal of our operation is to improve the economic efficiency and work safety. TTS is one of the biggest and oldest private organizers of vocational education and we train approximately 8000 students a year for a variety of professional occupations. With almost 80 ongoing projects a

year, we carry research and develop the efficiency of work methods, energy and eco-effectivity, -productivity, and functionality of equipment. TTS offers vocational education for technical fields using modern equipment in diverse environment. After TTS training employment is strong as 70 per cent of our graduated students become employed or continue further with their studies. TTS is a unique educational and development organization as we also offer research and developing services for our clients.

Enterprise:

1. Hankkija
Hankkija is a nationwide store and service chain for agriculture-related products, machinery, hardware and gardening. Hankkija has 63 retailing stores and 8 Machinery Centres. In 2019 Hankkija net sales totalled 798 MEUR and the company has 1000 employees in Finland.
2. Lantmännen
Lantmännen is an agricultural cooperative and Northern Europe's leader in agriculture, machinery, bioenergy and food products. Lantmännen is owned by 19 000 farmers and with grain at the heart of our operations, we refine arable land resources to make farming thrive.

Researchers:

1. Luke Natural Resources Institute Finland
Natural Resources Institute Finland (Luke) is a research organisation that builds sustainable future and well-being from renewable natural resources.
2. University of Helsinki
The University of Helsinki is Finland's largest and oldest academic institution and an innovative centre of science and thinking. Since 1640, we have contributed to the establishment of a fair and equal society that is considered one of the best in the world. Today, our multidisciplinary academic community solves problems that affect us all – with the power of knowledge, for the world.

Farmer based organisation:

1. Maitoyrittäjät
Maitoyrittäjät (Professional Dairy Farmers association) responds to the demands placed on dairy farmers by the future's challenging and fast-changing operational environment. Our members are dairy farmers who are interested in networking and developing their business.

Dairy industry:

1. Valio Ltd
Valio, offering the taste of Nordic nature since 1905, is a brand leader in Finland and a major player in the international dairy ingredients market. Our product development follows in the footsteps of Nobel Prize winner A. I. Virtanen, and the company holds over 300 patents in 50 countries. Valio has net sales of EUR 1.7 billion and is Finland's biggest food exporter. Our products are found in some 60 countries and account for 25% of Finland's total food exports. We have subsidiaries in Sweden, the Baltics, USA, and China. Valio employs a total of 25,000 people at dairy farms and 4,000 professionals at Valio. 4,000 Finnish dairy farmers founded Valio in 1905 and they are still our owners. We pay out all the profits to the farmers through regional dairy co-operatives. This is our way of making sure that we have access to locally produced food whose origin we know.

Government:

1. Ministry of Agriculture and Forestry

The Ministry of Agriculture and Forestry steers the policy on sustainable use of natural resources. Legislative work is carried out as part of the Finnish Government and the EU institutions and decision-making. Renewable natural resources derive from the renewal capacity of the nature itself. Among other things, they comprise all plants and animals. According to the principle of sustainable development, renewable natural resources must be used so that their value is preserved for the future: meeting the needs of the present without compromising the ability of future generations to meet their own needs.

2. Ruokavirasto - Finnish Food safety authority

The Finnish Food Authority works for the good of humans, animals, and plants, supports the vitality of the agricultural sector, and develops and maintains information systems. The Finnish Food Authority promotes, monitors and studies the safety and quality of food; the health and wellbeing of animals; plant health; fertiliser products, animal feeds and plant protection products that are used in agricultural and forestry production; and propagating materials i.e. seeds and planting materials. It is responsible for the use of the funds provided by the European Union's agricultural guarantee and rural development funds in Finland, operates as the EU's paying agency and monitors the implementation of EU and national grants – farming subsidies, project, entrepreneurship, and structural subsidies as well as market subsidies.

Facilitation methods

What have we done?

During the meeting we had discussions in two groups, farmers and other NDA mixed. Challenges and needs were identified first in two groups and then all together. As the final stage of the workshop, the importance of them was evaluated in a Google Forms voting tool.

What was easy?

It was easy to discuss about these themes with each other.

What was difficult?

The COVID-19 situation made it too difficult to bring the group together in live meeting. The meetings were arranged remotely via Teams which may have limited technically the discussions.