

NDA Slovenia

AKIS organisation in Slovenia

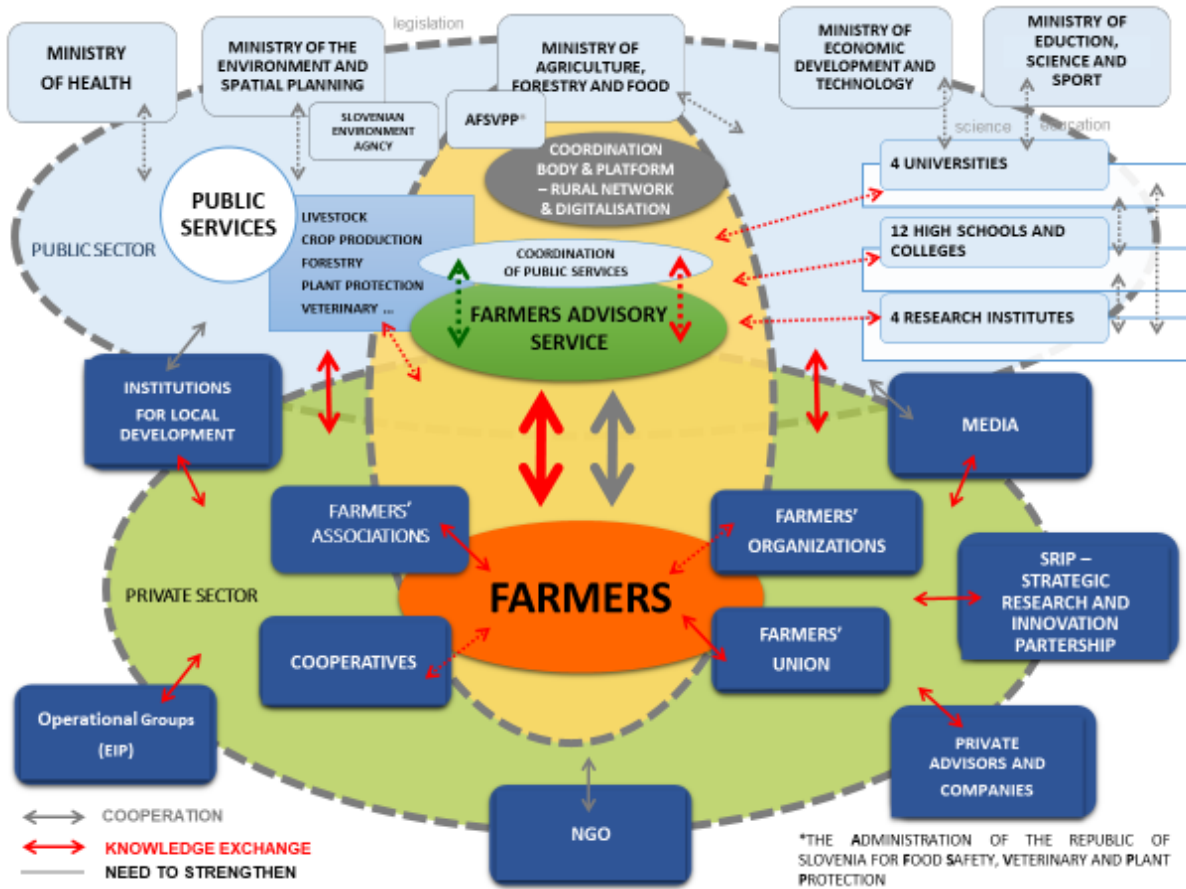


Figure 40. Dairy Agricultural Knowledge & Information System (AKIS) in Slovenia

Slovenia has a national dairy AKIS that consists of 32 members and also has a link with 1 other project (Figure 41):

- 10 pilot farms
- 8 Advisory institutions – Regional Farmers Advisory services: Murska Sobota, Ptuj, Maribor, Celje, Ljubljana, Kranj, Novo mesto, Nova Gorica
- Cooperative Union of Slovenia
- 2 government institution: Ministry of Agriculture, Forestry and Food and Ministry of environment
- 2 Universities: University of Ljubljana & University of Maribor
- Slovenian Agricultural Institute
- Chamber of Agriculture and Forestry of Slovenia (CAFS)
- 3 Breeding organisations: Simmental, Brown, Holstein
- Slovenian Rural Youth Association
- 3 members of the dairy industry: Ljubljana Dairy, Celeia, Planika
- SUPER-G project

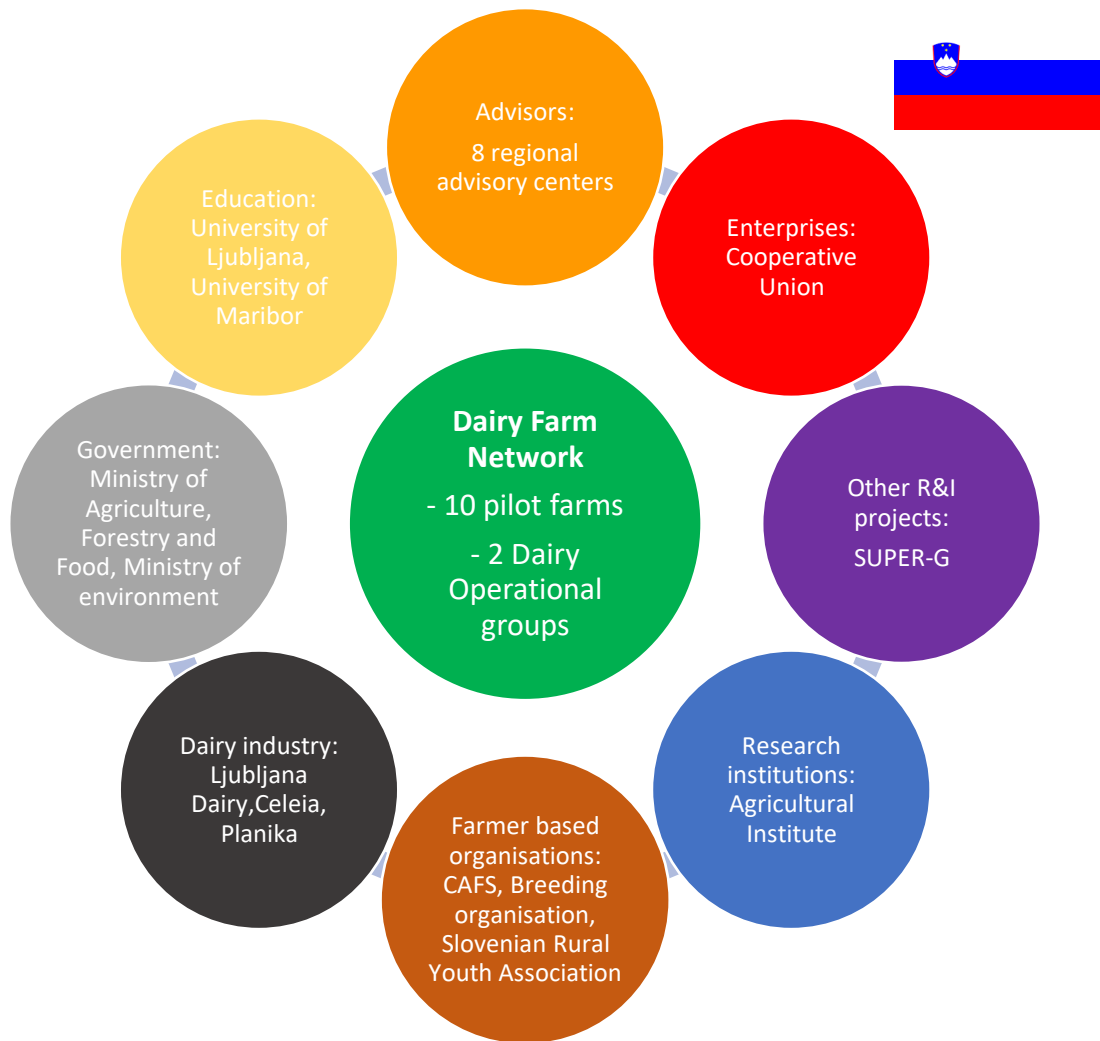


Figure 41. The national dairy AKIS of Slovenia consists of 10 pilot farms and 22 non-farmer institutions each with their own expertise.

Below, each member will be described into more detail.

Pilot farms

The 10 pilot farms are spread over Slovenia and are depicted in Figure 42.



Figure 42. Location of the 10 pilot farms in Slovenia.

1. Simon Čretnik (Žalec)
 - Volume of milk production: 627.800 kg per year
 - Dairy cows: 55
 - Reason to include this farm: Family farm. The owner of this farm is a young farmer. New barn, Fullwood milking robot and permeable floor for dairy cows - environmental and animal friendly housing system. The farmer is open minded and interest in different innovations related to dairy farming.
2. Jakob Dolinar (Sovodenj)
 - Volume of milk production: 230.000 kg per year
 - Dairy cows: 30
 - Reason to include this farm: This is mountain family farm with Simmental dairy cows. The farmer and his family members are interested in processing of milk on the farm, added value milk production, grazing management and rearing of young stock.
3. Matej Brezovnik (Radlje ob Dravi)
 - Volume of milk production: 772.000 kg per year
 - Dairy cows: 65
 - Reason to include this farm:

This is large family farm, Holstein dairy cows and fattening bulls, for the region. The farmer has interest in economic and labour efficiency.

4. Gregor Ročnik, Šoštanj
 - Volume of milk production:
857.000 kg per year
 - Dairy cows:
65
 - Reason to include this farm:
This is a hilly family farm with high-productive Holstein dairy cows and young stock. The farmers are interest in top genetics, rearing healthy and functional dairy cows with excellent longevity and great economics farm results.
5. Janez Sajovic, Kranj
 - Volume of milk production:
1.411.000 kg per year
 - Dairy cows:
150
 - Reason to include this farm:
This is one of the largest family farms with Holstein dairy cows and young stock. The farmer has interest in economic and labour efficiency. The farmer introduces various innovations on the farm to make the farm more resilient (e.g. rotary milking parlour, solar energy on the roof, separation of manure, robot for laying of cubicles with straw).
6. Nejc Dolenc, Radovljica
 - Volume of milk production:
823.000 kg per year
 - Dairy cows:
65
 - Reason to include this farm:
Family farm with Holstein high-productive cows. The farmer is interested in added value milk production with processing of milk on the farm and selling of dairy products on the farm.
7. Toni Kukenberger, Trebnje
 - Volume of milk production:
180.000 kg per year
 - Dairy cows:
20
 - Reason to include this farm:
Organic family farm with Brown cows. The farmer is interested in sustainable milk production on the base of grass, hay and concentrate (without any silage). All milk is processed on the farm and sold on the farm, in local stores, online and in boutique stores (small stores selling mostly more expensive agricultural products, e.g. wine shop with premium wines and cheeses).
8. Zadrgal Matija, Komenda
 - Volume of milk production:
586.000 kg per year
 - Dairy cows:
60

- Reason to include this farm:
Family farm with Simmental dairy cows and potato production. This farm is also a care farm where people with special needs can be involved in farm activities.
9. Anton Žampa, Desternik
- Volume of milk production:
656.000 kg per year
 - Dairy cows:
65
 - Reason to include this farm:
Family farm with Holstein dairy cows and grain production. This farm is very innovative with many different robots and sensors – smart farming systems.
10. Barbara Leber Vračko, Zgornja Kungota
- Volume of milk production:
550.000 kg per year
 - Dairy cows:
50
 - Reason to include this farm:
Family farm with Holstein dairy cows, wine production and agritourism. This hilly farm has interest in economics and labour efficiency and to make the farm resilient.

Operational groups

1) Circle of nutrients, organic matter, processes and information in agriculture (case of cattle farm) - Sustainable land use, emission reduction, positive effect on the environment

- Starting and end date:
15/11/2019 – 30/05/2023
- Objective of the project:
Inventory and monitoring of the circulation of nutrients, organic matter and fertilizer effects on 10 cattle farms + 2 holdings - inputs/outputs in view of ensuring sustainable use of agricultural land, improving the fertility of the soil. Finding solutions for more efficient grassland management and increasing biodiversity through appropriate farming methods. Monitoring the micro-climate of the stables and the emission of greenhouse gases in different housing systems (cubicles, compost, artificial floor) in terms of improvements and mitigation of climate change in agriculture. Find out opinions of consumers and farmers regarding the different housing systems and the dissemination of results.
- Description of activities:
 - I. Pillar: CIRCLE OF NUTRIENTS:*
Situation on cattle farms (housing, nutrient circle, inputs/outputs (feed, milk/meat, excreta), analysis of TPG emission in the barn, soil analysis (farmland), proposals for improving the housing systems, monitoring/evaluation.
 - II. Pillar: ORGANIC MATTERS:*
Analysis of by-products in compost barns, monitoring/evaluation, optimization of management in compost barns;
 - III. Pillar: SUCKLER COWS:*
Study of the possibilities for multiuse of stables during pasture.

IV. Pillar: CIRCLE OF INFORMATION:

Analysis of consumers and farmers opinions on various housing systems, dissemination of results, transfer of knowledge into practice and increased skills of farmers

- Website:
<https://ec.europa.eu/eip/agriculture/en/find-connect/projects/kro%C5%BEnje-hranil-organske-snovi-procesov-informacij>
- Coordinator name and contact:
University of Ljubljana, Biotechnical Faculty, contact person: Marija Klopčič, e-mail: Marija.Klopacic@bf.uni-lj.si
- Partners:
 - 1) Janez Hočevar (dairy farm)
 - 2) KGZS – Kmetijsko gozdarski zavod Kranj (CAFF - regional advisory centre Kranj)
 - 3) University of Novo mesto, Faculty for economy and informatics
 - 4) Anton Kukenberger (organic dairy farm)
 - 5) Jakob Napotnik (dairy farm)
 - 6) Janez Benedičič (dairy farm)
 - 7) Organic farm and education »Zlate misli«, Matjaž Turinek s.p.
 - 8) Damjan Zore (dairy farm)
 - 9) Simon Čretnik (dairy farm)
 - 10) Andrej Kokalj (dairy farm)
 - 11) KGZS – Kmetijsko gozdarski zavod Ptuj (CAFF - regional advisory centre Ptuj)
 - 12) Barbara Leber Vračko (dairy farm)
 - 13) Peter Pokorn – designer
 - 14) Dairy plant Planika d.o.o. Kobarid (organic farm Bogata)
- Funding Organisations:
Rural development 2014-2020 for Operational Groups (in the sense of Art 56 of Reg.1305/2013)



REPUBLIKA SLOVENIJA
MINISTRSTVO ZA KMETIJSTVO,
GOZDARSTVO IN PREHRANO



Ideje in rešitve povezujejo!



2) Innovative environmental-climate-based management systems of cattle farms to ensure feed production and optimal conditions for rearing of cattle

- Starting and end date:
30/11/2020 – 01/12/2023
- Objective of the project:
The aim of the project is to introduce innovative environmentally and animal-friendly management systems for cattle farms which ensure the sustainable use of agricultural land and other resources with the purpose of producing quality milk and meat. During the project we will develop good management practices for cattle farms, with particular emphasis on innovative housing systems (compost, artificial floor) that have proven beneficial effects on animal welfare, reduce the negative impacts of climate change, improve soil quality and soil profile, making it possible to produce better quality of forage for animals and improving the biodiversity of permanent grassland adapted to climate change.
- Description of activities:
We will analyse the state of the cattle farms involved in the project (such as agricultural

land use, animal housing systems, botanical grassland composition, feed quality), study innovative systems for housing of cattle and animal excreta management, review innovative solutions for more efficient use of agricultural land in terms of positive effects on soil structure and quality, quantity and quality of feed, biodiversity, climate change mitigation through the use of more resilient grasses and clovers. We will examine the benefits to soil, plants, animals, people and the environment. The results of the project will be comprehensively tested on project cattle farms and disseminated to the public.

- **Website:**
<https://ec.europa.eu/eip/agriculture/en/find-connect/projects/inovativni-okoljsko-podnebno-naravnani-sistemi>
- **Coordinator name and contact:**
University of Ljubljana, Biotechnical Faculty, contact person: Marija Klopčič, e-mail: Marija.Klopacic@bf.uni-lj.si
- **Partners:**
 - 1) Grm Novo mesto - Center biotehnike in turizma
 - 2) Benedičič Janez (dairy farm)
 - 3) Hočevar Janez (dairy farm)
 - 4) Kmetijsko gozdarska zbornica Slovenije Kmetijsko gozdarski zavod Ptuj
 - 5) Dairy plant Planika, d.o.o. Kobarid
 - 6) Leber Vračko Barbara (dairy farm)
 - 7) Dolinar Jakob (dairy farm)
 - 8) Univerza v Novem mestu Fakulteta za ekonomijo in informatiko
 - 9) Čretnik Simon (dairy farm)
 - 10) Medeja, Damjana Peternelj s.p.
 - 11) Kukenberger Anton (dairy farm)
- **Funding Organisations:**
Rural development 2014-2020 for Operational Groups (in the sense of Art 56 of Reg.1305/2013)



REPUBLIKA SLOVENIJA
MINISTRSTVO ZA KMETIJSTVO,
GOZDARSTVO IN PREHRANO



Ideje in rešitve povezujejo!



Non-farmer stakeholders

Farmer based organisations:

1. Chamber of Agriculture and Forestry of Slovenia (CAFS).
CAFS is the umbrella interest organization of natural and legal persons in the Republic of Slovenia engaged in agriculture, forestry and fishery. Its central task is to protect and represent their interests, to consult them and accelerate economical and environment friendly activities. CAFS is also actively involved in international activities. It is a member of Copa-Cogeca and it participates on international conferences, congresses, fairs and preserves and strengthens good interaction with the agricultural organizations within and outside EU. CAFS is also a partner on several European projects. CAFS performs public *farm advisory service* (FAS) as well as other activities, such as research, implementation of services of national interests, trainings, seminars and promotion activities.
2. Cattle Breeding Associations (Simmental, Brown, Holstein)
The *Cattle Breeders' Association* of Slovenia is a non-governmental legal organization which links together three Breeder Associations (for *Simmental, Brown, Holstein*) with around 5.000 dairy farmers. The most important goal of this organization is creating cattle production development strategies in Slovenia, promote and represent cattle breeders' interests, support research and professional work in the cattle production sphere. They also seek contacts with similar organizations in other countries.
3. Slovenian Rural Youth Association
Slovenian Rural Youth Association is a voluntary association of Slovenian rural youth societies. Members of Slovenian Rural Youth Association are those who are members of rural youth societies of which there are 52 in Slovenia. Slovenian Rural Youth Association is politically and ideologically undefined youth organisation.

Advisors:

In the CAFS, there are 8 public agricultural and forestry institutes, located in different regions: Ptuj, Kranj, Murska Sobota, Celje, Ljubljana, Novo Mesto and Nova Gorica. From each regional advisory service, 1 or more advisors are represented in the NDA of Slovenia.

1. Regional Advisory service Ptuj
Represented by Anton Hohler & Nataša Unuk
2. Regional Advisory service Kranj
Represented by Blažka Božnar, Tomaž Cor & Marija Grohar
3. Regional Advisory service Murska Sobota
Represented by Marjan Špur
4. Regional Advisory service Maribor
Represented by Maja Vodopivec
5. Regional Advisory service Celje
Represented by Maja Klemen Cokan
6. Regional Advisory service Ljubljana
Represented by Jasmina Slatnar
7. Regional Advisory service Novo Mesto
Represented by Ana Moder
8. Regional Advisory service Nova Gorica
Represented by Marta Koruza

Enterprise:

1. Cooperative Union of Slovenia
Cooperative Association of Slovenia is a voluntary umbrella organisation of cooperatives with 73 members and works just on national level, the same as the Farmers' union. The agriculture cooperative is the most common and traditional form of business cooperation in the agricultural sector. Its primary focus is on the purchase and sale of agricultural products and operates at national, territorial or local levels. As an intermediate link between producers and retail chains and consumers they also play a role in AKIS in terms of farmers' adaptation to market conditions and demands.

Education:

1. University of Ljubljana:
The *Department of Animal Science* is one of the seven departments, which make up the *Biotechnical Faculty of the University of Ljubljana*. The Department of Animal Science is organizing and running undergraduate programs and research and expert work in the field of animal science. The Biotechnical Faculty of the University of Ljubljana (UL) is devoted to international cooperation in education and research. A substantial part of UL's operation is education, research, knowledge transfer and professional (project) activities.
2. University of Maribor:
The *Faculty of Agriculture and Life Sciences* (FKBV) is one of the founding members of the University of Maribor. Research activities play an important part of the daily activities conducted at the FKBV.

Researchers:

1. Agricultural Institute of Slovenia
Key national research institutes are the Agricultural Institute of Slovenia responsible for milk recording data base, development in breeding.

Dairy industry:

1. Ljubljana Dairy:
Ljubljana Dairy is the leading dairy and the largest wholesaler of milk and dairy products in Slovenia. Of all the dairies in Slovenia, Ljubljana Dairy purchases the largest volume of domestic milk from over 2.000 Slovenian farms. Using a tracking system, they can accurately identify the farm where the milk was produced for each milk tank.
2. Dairy plant Celeia, Arja vas:
Celeia is a domestic, advanced, successful and trusted cooperative dairy company that creates innovative natural products of superior quality. Their work is characterised by values of quality, food safety, environmental care and a healthy and safe working environment. They are the largest cooperative dairy company owned in Slovenia, providing quality fresh products from Slovenian milk.
3. Dairy plant PLANIKA Kobarid
Planika is a producer of healthy, quality, and delicious Slovenian food, preserving the heritage and culinary tradition in the field of dairy and cheese making. As a producer of high quality, Slovenian dairy products, bearing the label Selected Quality, they want to improve their market position and satisfy the needs of the consumer and bring the awareness that homegrown food is the best. They also produce PDO Tolminec cheese.

Government:

1. Ministry of Agriculture, Forestry and Food

The Ministry of Agriculture, Forestry and Food is a government institution that performs tasks in the field of agriculture. Its affiliated bodies in the field of agriculture are:

- the Agency of the Republic of Slovenia for Agricultural Markets and Rural Development,
- Slovenian Environmental Agency,
- Inspectorate of the RS for Agriculture, Forestry, Food and Environment,
- The Administration of the RS for Food Safety, Veterinary and Plant Protection.

Given the small size of the Republic of Slovenia, its ministries operate just at the national level, although some affiliated bodies have territorial units. Public services in agriculture are implemented by different public and private organisations, such as the Chamber of Agriculture and Forestry of Slovenia (CAFS).

There are also some other public institutions that contribute to agriculture knowledge and information exchange such as: public institutions officially responsible for public services on rural development, nature preservation (e.g. national parks) and regional and regional/local institutions involved in rural development, and other issues important for the development of their territory (e.g. local development agencies). The situation differs from region to region.

In Slovenia the Advisory Service, milk recording service and selection are performed as a public service based on concession, which is granted by the Ministry of Agriculture, Forestry and Food. It also carries out the zootechnical inspection and supervision of the performed production control.

2. Ministry of Environment

The Ministry of the Environment and Spatial Planning helps provide a healthy living environment for all inhabitants of the Republic of Slovenia and promotes and coordinates efforts towards sustainable development based on the efficient and economical use of natural resources and ensuring social wellbeing. Adapting to increasingly pronounced climate change is one of the key challenges of our time, therefore the Ministry strives to raise the awareness of the inhabitants of the Republic of Slovenia about the shared responsibility for the state of the environment, nature and space.

Other R&I projects:

1. H2020-SFS-2016-2017 **SUPER-G** project: Developing **SU**stainable **PER**manent **G**rassland systems and policies.

The existence and management of permanent grasslands (PG) is key to the delivery of multiple ecosystem services (ES) across Europe. The overall objective of the SUPER-G project is to co-develop sustainable PG systems and policies with farmers and policy makers that will be effective in optimising productivity, whilst supporting biodiversity and delivering a number of other ecosystem services. SUPER-G will apply a multi-actor approach, working with farmers; landowners/managers and their advisers; third sector and civil society groups; non-governmental organisations (NGOs) and researchers, policy and business communities to achieve:

- 1) better understanding of the importance and functioning of PG within a range of important European biogeographic (flora/fauna; soil type, altitudinal band and climatic) regions, in the context of market trends and other global change.
- 2) benchmarking of PG performance across Europe;

- 3) co-development of integrated approaches for profitable and sustainable PG management in a rapidly changing world; and
- 4) co-development of tools and policy mechanisms, which are inclusive of stakeholder and citizen priorities, to support the maintenance and sustainable management of PG.

Facilitation methods

What have we done?

In March this year three webinars were organised about future on dairy sector in Slovenia. We also stimulate dairy farmers and stakeholders related to dairy sector to complete the R4D survey.

What was easy?

Discussion about needs, problems and threats related to dairy sector was intensive, with many different ideas.

What was difficult?

To find the right time to bring people together. In the winter there were many limitations because of Covid 19. During summertime it is nearly impossible to organise a face-to-face meeting with enough attendance.