NDA Italy

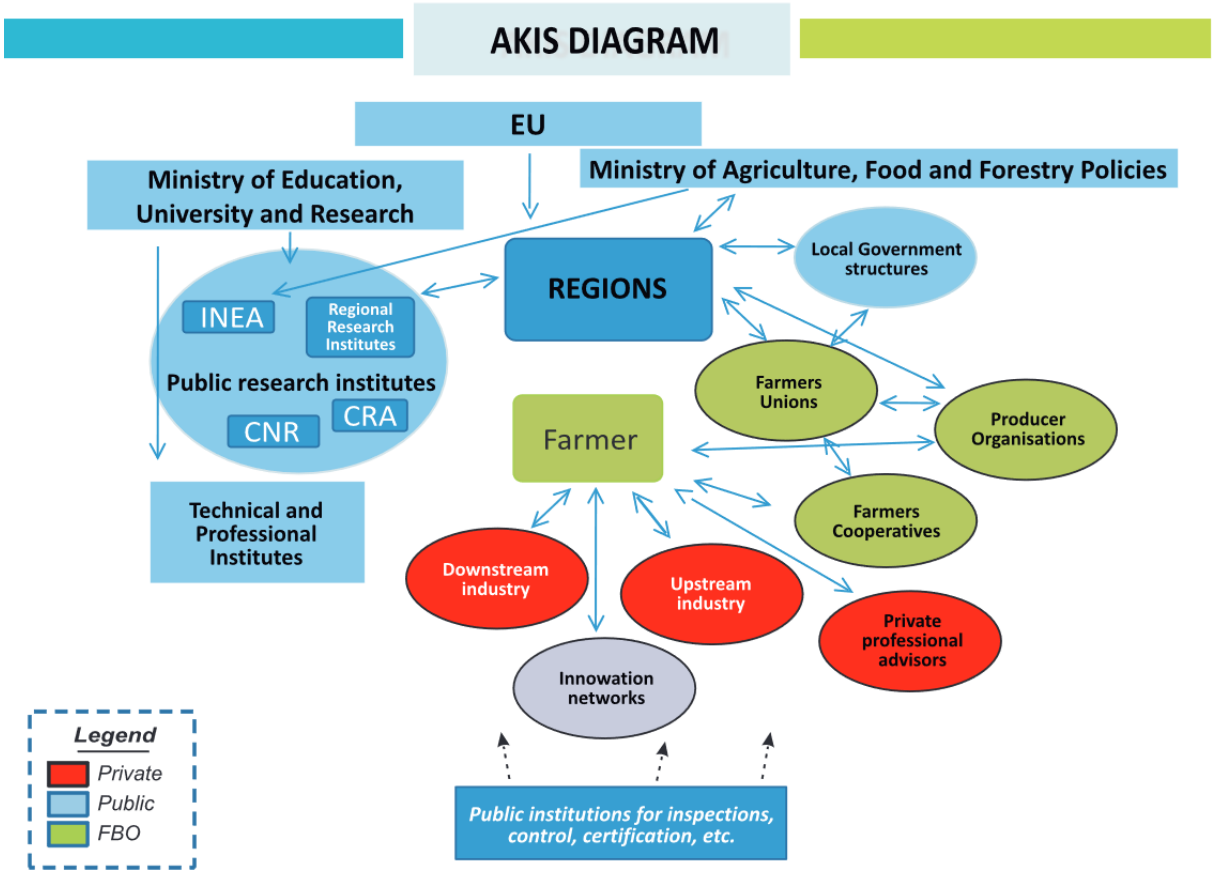

Figure 25. Dairy Agricultural Knowledge & Information System (AKIS) in Italy

Italy has a national dairy AKIS that consists of 16 members (Figure 26):

- 10 pilot farms
- 2 research institution: CRPA and CREA
- 1 education institute: Università di Milano
- 3 advisors and communication experts: Scienza e Tecnica Lattiero Casearia, Allevatori TOP and Ruminantia

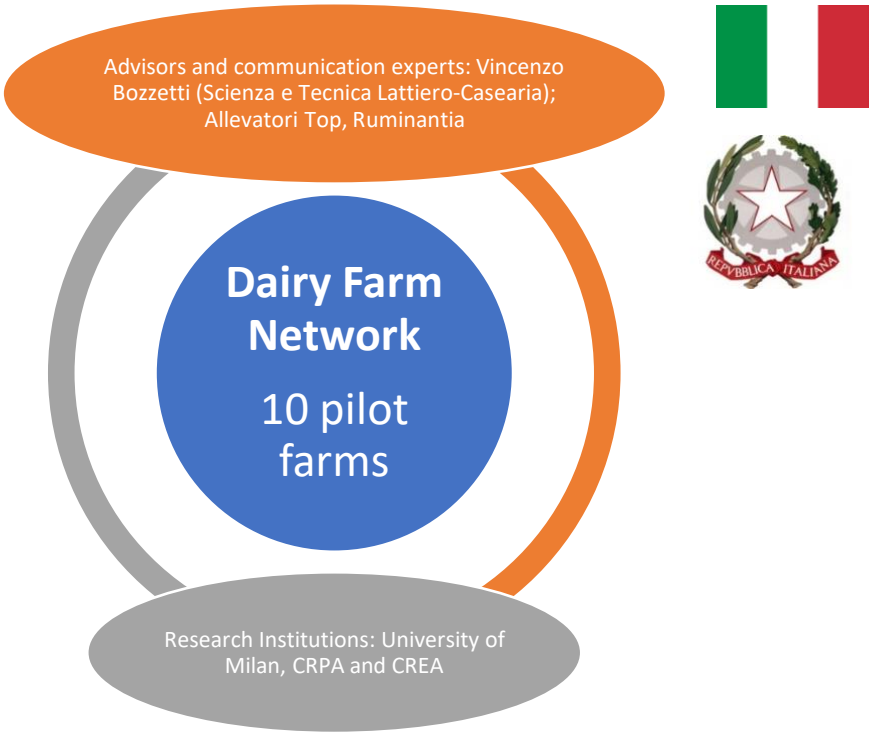

Figure 26. The regional dairy AKIS of Flanders (Belgium) consists of 10 pilot farms and 6 non-farmer institutions.

Pilot farms

The 10 pilot farms are spread over Northern Italy in the following regions/provinces:

- Emilia-Romagna: Parma (3)
- Lombardy: Cremona (1), Mantua (2), Milan (1)
- Veneto: Padua (1), Treviso (1), Vicenza (1)

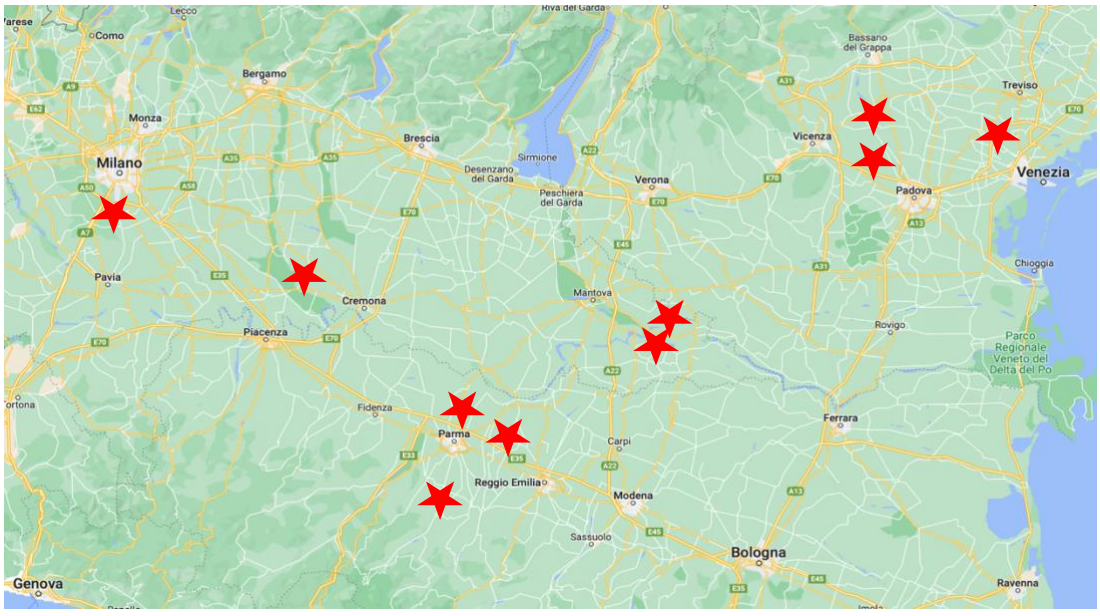

Figure 27. Location of the 10 pilot farms in Northern Italy.

More in detail:

1. Chiara Ceriani (Mantua)
   - Volume of milk production:
     4.000.000 kg per year
   - Dairy cows:
     460
   - Reason to include this farm: Good
     In general: good management skills and innovation-oriented.
     Socio-Economic efficiency: good resilience
     Technical issues: robot for TMR preparation and distribution, TMR automatic pusher, milking robot combined with 8x8 parlour system.
     Environment, animal welfare and society friendly production systems: the innovations related to TMR distribution/pusher have impact also on animal welfare. The farm is interested in saving energy and renewable energy production.
2. Cecilia Cervi-Ciboldi (Cremona)
   - Volume of milk production:
     4.400.000 kg per year
   - Dairy cows:
     600
   - Reason to include this farm:
     In general: innovation oriented – Issues: generation renewal.
     Socio-Economic efficiency: good - Raw materials self-sufficiency
     Technical issues: AFS: Robot for TMR preparation and distribution, TMR automatic pusher
     Environment, animal welfare and society friendly production systems: pasture for calves, calfrail, raw materials self sufficiency
3. Fabio Curto (Treviso)
   - Volume of milk production:
     1.500.000 kg per year
   - Dairy cows:
     300
   - Reason to include this farm:
     In general: originality (e.g. complexity, summer pasture, agri-tourism...). The motto is: "The innovation of yesterday is the tradition of today": total consistency between philosophy and practice, with synergy between tradition and innovation. Extreme multi-functionality. Synergy between generations.
     Socio-Economic efficiency: high
     Technical issues: innovations (milking robots, automatic milk dispenser for calves, AFS, cooling system)
     Environment, animal welfare and society friendly production systems: cooling system, milking robots, automatic milk dispenser for calves, AFS, summer pasture.
4. Enrico Dadati (Parma)
   - Volume of milk production:
     1.000.000 kg per year
   - Dairy cows:
     200
   - Reason to include this farm: good
     In general: Genetics.

Technical issues: genetics
Environment, animal welfare and society friendly production systems: water system

5. Giorgio Dellai (Treviso)
   - Volume of milk production:
     1.310.000 kg per year
   - Dairy cows:250
   - Reason to include this farm:
     In general: flexibility, cooperative-oriented, “societal sensitivity”.
     Socio-Economic efficiency: high
     Technical issues: double crops (spring/autumn)
     Environment, animal welfare and society friendly production systems: in spring and autumn heifers and dry cows are outdoor for 100-110 days/year
6. Saverio Delsante (Parma)
   - Volume of milk production:
     1.550.000 kg per year
   - Dairy cows:
     350
   - Reason to include this farm:
     In general: open minded, innovation-oriented both as for technology and marketing/communication/sales strategies.
     Socio-Economic efficiency: high
     Technical issues: from milk production to cheesemaking and direct sale, e-commerce, and tourism
     Environment, animal welfare and society friendly production systems: the farm and the cheese factory are open to visitors.
7. Enzo Marcolin (Vicenza)
   - Volume of milk production:
     1.230.000 kg per year
   - Dairy cows:
     200
   - Reason to include this farm:
     In general: perfect synergy between the management vision of the 2 owners (Angelo, high technical knowledge, and Enzo, discussion oriented, open-minded), strong common commitment on animal welfare, strong contribution to the characterization of their territory
     Socio-Economic efficiency: good
     Technical issues: cross-breeding and innovative in-farm system for hay drying/production.
     Environment, animal welfare and society friendly production systems: mats, cooling/ventilation system, colostrum monitoring and bank, manure treatment and reduction of input, cooperative feed production
8. Kristian Minelli (Mantova)
   - Volume of milk production:
     1.800.000 kg per year
   - Dairy cows:
     240

- Reason to include this farm:
  In general: young and openminded, strong link with PDO production (Vice-President of the Consortium of Parmigiano Reggiano Cheese), very sensitive about farmers reputation in civil society
  Socio-Economic efficiency: high
  Technical issues: milking robot, genetic (genomic), slurry separator
  Environment, animal welfare and society friendly production systems: manure separator and strong commitment in societal acceptability of farmers

9. Martina Penati (Milano)
   - Volume of milk production:
     1.100.000 kg per year
   - Dairy cows:
     200
   - Reason to include this farm:
     In general: good management skills and innovation-oriented
     Socio-Economic efficiency: high
     Technical issues: technical efficiency (milking robot, lab milk assessment)
     Environment, animal welfare and society friendly production systems: manure separator + Alligator bag
10. Antonio Pionetti (Parma)
    - Volume of milk production:
      4.100.000 kg per year
    - Dairy cows:
      770
    - Reason to include this farm:
      In general: cooperative system.
      Socio-Economic efficiency: high
      Technical issues: the farm has no agricultural area and receive fodders by cooperative partners.
      Environment, animal welfare and society friendly production systems: manure separator, biogas (not of farm's property), compost barn

Non-farmer stakeholders

Advisors:

1. Scienza e Tecnica Lattiero Casearia – Technical Director Vincenzo Bozzetti – STLC is the peer reviewed *Official Publication of Italian Dairy Science Association.* It is a scientific and technical reference for the operators of dairy sector.
2. Ruminantia – It is a Free daily online magazine and its editor-in-chief is Alessandro Fantini - See company profile. Its mission is the technical-scientific, political and economic information and insights for operators of the milk and meat sectors from ruminants and its values are independent information free comparison of ideas right to the truth.
3. Allevatori TOP – It is a magazine of technical information on large and small ruminants – Giovanni De Luca is a journalist and he has a large experience in information/communication in agri-food sector.

Researcher institutions:

1. Milan University - Faculty of Veterinary Medicine - Department of Veterinary Medicine and Animal Sciences – Sara Barbieri is an associate professor, with specific expertise on Ethology and Animal Welfare. She has experience and is involved in many local/international project linked to animal welfare in animal production. She is author/co-author of many papers on animal welfare. In 2007 she acted as Seconded National Expert at the European Food Safety Authority, within AHAW Panel.
2. CREA – CREA is leading Italian research organization dedicated to the agri-food supply chains. It operates as a legal entity under public law, and is supervised by the Ministry of Agricultural, Food and Forestry Policies (Mipaaf). Its scientific activity covers agricultural crops, livestock, fishery, forestry, agro-industry, food science – and socio-economics. CREA has full scientific, statutory, organizational, administrative, and financial autonomy. It was established in 2015, from the merging of CRA (Council for Agricultural Research) and INEA (National Institute of Agricultural Economics), two country-wide institutions active since mid of last century". It is composed by 12 research centres. Its committment is to deal with the great challenges of the twenty-first century related to food production sustainability, following the principles of the circular, bio-based economy through a multidisciplinary approach that includes innovation transfer – Carlo Bisaglia is in charge for the Agro-mechanical prototyping laboratory (Treviglio, BG).The laboratory is equipped to perform the main mechanical processes necessary for the realization of scale prototypes and for the instrumentation of agricultural machines to be tested. The laboratory also performs adaptations and modifications during the execution of research for the addition of specific measuring equipment.
3. CRPA - Research Center for Animal Production is a joint-stock holding company, founded in 1972, with the public sector as majority shareholder. CRPA is composed of 35 experts with complementary qualifications, including agronomists, economists, vets, engineers, chemists and communication experts. The CRPA mission is to conduct research, develop services for agri-food industry and competent public bodies, with the aim of promoting technical, economic and social progress in the livestock sector and to spread the most advanced forms of sustainable environmental and animal friendly agriculture.

Facilitation methods

What have we done?

During meetings, resilience in the dairy sector was discussed. The 3 main themes were addressed: socio-economic resilience, technical resilience and environment, animal welfare and society. The session is introduced by CRPA experts and then Pilot Farmers and other stakeholders discuss on round table trying to focus on “what they need” to improve resilience and “how they can contribute” to R4D network as for farm resilience, teaching to other farmers some specific strategy/technical equipment/suggestion that have improved the resilience of their farm.

What was easy?

The members are very motivated, enthusiastic, and open-minded. The discussion has been planned and transparent.

What was difficult?

Due to the pandemic situation NDA could meet in person only in early 2022. June is a very busy moment for Italian farmers: it was not so easy to find pilot farmers that could join the general meeting in Dublin.