



Innovative farming in Finland

# Innovations and development of rural areas

- New ideas for self-sufficient farm
  - Biogas
- Actions for climate change
  - Carbon action
- Targeted actions and data collecting with drones
  - Targeted fertilization and weed control
  - Drainage blocks
  - Finding lost animals

## Viskaalin cattle farm

- Viskaalin farm was sold to the current owners Heikki and Tuula early 2011 in Muhos, Finland
- The farm also has a slaughterhouse
- Viskaalin meat products can be bought in the entire Northern Finland



### Viskaalin biogas plant

- Cattle manure processing biogas plant in Muhos, Finland
- Got building permit early 2022 and will produce biogas late 2023
- Uses cattle manure and bio waste as raw material
- It's processing capacity is 34t which makes it about 10 times bigger than traditionally built biogas plants







- Carbon Action research tests and measures carbon farming methods in a hundred different farms.
- Carbon Action pursues to develope carbon farming. The carbon storage accumulation is measured for the period of five years.
- Carbon Action project was created in 2019 and it lasts to 2023.



- Pietilä's farm was formed in 2012.
- They have two hundred hectares of fields, and the oat they produce goes to Kinnusen Mylly.
- In the future they are planning to sign as a corporation.
- They are a gluten-free farm, and the seeds they use have to be as clean as possible. The seeds have to be storaged and dried in a glutenfree place.
- Pietilä's farm has a hundred of mother cows, but they are leaving in October.
- The farm is part of the Carbon Action project.

#### Antroma Oy

Antroma Oy is a farm located in Siikajoki, Finland. Antti Mäkinen inherited the company from his parents in 2015. His parents started the farm in 1988.

There are over 1000 cows in the farm. The animals live in five different barn buildings. Dairy-bred bulls and heifers live in three cool sheds and mother cows, heifers and breeding bulls in two cold sheds. Meat-breed bulls that are raised for slaughter are also in the cold stalls.

In the grazing season (usually from May to August) heifers, mother cows and their calves have open access to pasture.

Meat-breed cows are delivered to slaughter to Atria Oy, one of the biggest food industry companies in Finland.

Antroma has over 200 hectars of grazing land. Two or three crops of silage are made during the growing season, which is enough for the farm's animals. They also grow barley, oats and wheat on an area of 600 hectares.







## Drone using in agriculture

In agriculture drones can be used for example to find missing animals, to measure the height differences of the land, for precised fertilization planning, to determine the condition of the plants or to calculate crop yield. The farmer does not always have time to constantly check their entire farm or the growth situation of the fields, especially during the busiest times of Spring, so using a drone makes it a lot easier. This is why Antti decided to get a drone to his farm. He also showed us how it works.

