

NAK TechLab – Fort he digitization of the agricultural sector

Climate change, generational shift, growing demand for quality food or sustainability expectations pose challenges to farmers that can be hardly (or not at all) answered without digital solutions. Recognizing this, the Hungarian Chamber of Agriculture launched NAK TechLab in 2019: a unique agro-innovation program in the history of the country. Startups applying for the program work on their new solutions with the country's best agricultural experts and product developers, as well as corporations. In a professional partnership, Design Terminal cooperates in several program elements.

With the help of startups, NAK TechLab is looking for innovative solutions to the challenges of agriculture that will boost and make the sector more efficient, and that will enable Hungary to play a central role in the development of the agricultural industry within the European Union.

The main goal of the initiative is to find a solution to real market problems, which is guaranteed by the companies as professional partners, such as the Bonafarm Group, AXIÁL Kft., KITE Zrt. or Corteva Agriscience. Valid solutions can reach farmers way faster through enterprise infrastructure, helping to modernize the sector and increase efficiency.

Mutual program elements

Hackathon

Hackathon is a 24-hour innovation competition where teams of students from different disciplines work in an innovative way to solve pre-defined challenges. The hackathon is a suitable format for a comprehensive approach to students studying in different fields, while making the event exciting and easy to understand for both participants and the audience. The aim of the program is to make agriculture more popular and attractive among young people. Furthermore, it is important to motivate this generation to start working and brainstorming in this field using their knowledge and competencies.

University Idea Competition

During the AgTech University Idea Competition, undergraduate students develop innovative solutions in teams with the help of agricultural professionals and business mentors. At the end of the competition, the best team will be awarded. In addition to engaging young people, the program aims to bring together ideas from NAK TechLab that can even address future corporate challenges. About 60% of applicants for ideas competitions came from non-agricultural areas.

Incubation Program

The NAK TechLab Incubation Program is the largest and most complex event of the collaboration, targeting already mature micro-enterprises with revenue and first customers, as well as large companies interested in the sector that want to play a leading role in agro-innovation. The incubation program is designed to support the collaboration of startups and large companies, during which the parties can assess, within a three-month facilitated program, whether there is a suitable solution for a particular challenge for startups. The goal of the incubation program is to strengthen the relationship between startups, large corporations, technology partners, and NAK TechLab, and to provide long-term results for a variety of collaboration opportunities.

Results

- 70+ participating teams
- 9 participating corporations
- 3 technological partners

Startups we are especially proud of

Byome:

Byome will make the installation of a sensor network available to smaller, with less capital producers, thus introducing data-based farming. They have 3 developed products; Krooo weather for the best timing of sowing, irrigation, Fynn trap for field inspection, Graff platform for overview of weather, diseases and pests in one system.

Grinsect:

It offers an innovative and environmentally conscious solution to the automated breeding of black trout larvae to solve the problem of growing food shortage. Grinsect has launched Hungary's first insect protein production plant, so they are the first in Hungary to sell insect flour. The novelty is mainly recommended for feeding purposes.

SMAPP LAB:

Combining artificial intelligence and pheromone traps, they created a trap system that automatically collects data from the lands. Traps specializing in corn borer and cotton owl butterfly are also used in areas of the Bonafarm Group. Based on the data collected by the traps, they provide decision support to the company in pest control.