

Meeting of the SWG SCAR AKIS Strategic Working Group on Agricultural Knowledge and Innovation Systems

- 1) Social innovation and inclusiveness in AKIS
- 2) Modern and interactive advisory services post 2020

Online meeting

24-25/9/2020

Member State: **HUNGARY**

SCAR
Standing Committee
on Agricultural Research



RDI (Research, Development, Innovation)

- Within the EU, Hungary is a moderate innovator
- Together with the new Member States (EU-13), only 5% of the EU Research Framework Program (Horizon 2020 [H2020]) has been mobilized.
- In Hungary, H2020 applications have **996 beneficiaries**, a total of 259.000.000 EUR, and **the average amount of grants awarded is 260.000 EUR**.
- In the new EU research framework program, Horizon Europe, the EU is increasingly seeing companies as beneficiaries. The results of the H2020 projects can also be used for tendering, interpreting and complying with calls for proposals, business development and building business relationships.
- Source: <https://miniapp.nak.hu/2020/feleves-beszamolo/>

Agro-innovation activity

- **Explosive changes are expected** in agriculture due to the spread of digital technologies and new, innovative solutions, which greatly contribute to the efficiency of the agricultural economy.
- Currently, **there are few opportunities where workers in other sectors may encounter problems affecting agriculture**, so they cannot embark on effective developments.

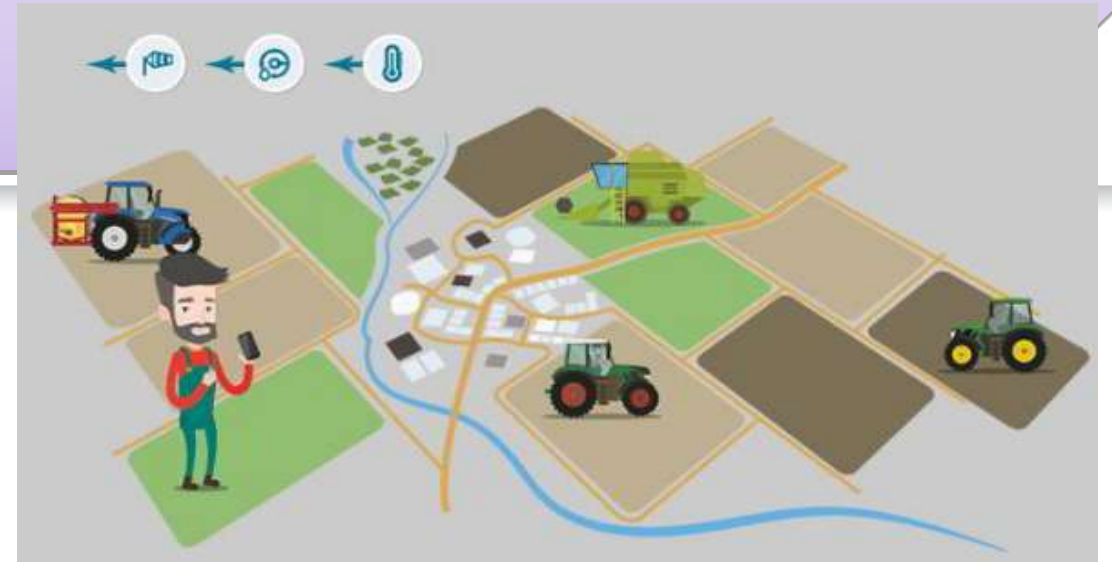


Agricultural innovation – good practices

- **NAK TechLab (Nemzeti Agrárgazdasági Kamara [NAK]) - The Hungarian Chamber of Agriculture [HCA])**
- NAK TechLab **startup incubator**: **talented young developers receive professional support** to develop and market the most innovative agricultural technologies.
- It is a **supportive environment**, an ecosystem for startups committed to the development of new, **gap-filling solutions**, which achieve rapid development. In the end, the opportunity for domestic farmers is expanded with a product or service that greatly increases their efficiency.
- At various events in the program, startups are given the **opportunity to collaborate** with large companies, giving them real customers and direct market feedback on their developments.
- It promotes **market-oriented and efficient operation**.
- The challenges that have surfaced during the advocacy of innovation can **lead to real solutions** during the program, which can benefit the entire Hungarian agriculture. The program creates innovation advocacy in the technology industry for agricultural actors, thus giving Hungarian farmers a competitive advantage in global competition with the solutions that appear here for the first time.
- *Source: <https://miniapp.nak.hu/2020/feleves-beszamolo/>*

Agricultural innovation – good practices

- **AgroVIR**
- Mixture of corporate management, production management and decision support systems that were made to supervise and plan production processes of agricultural businesses,
- Helps to see through and analyse data, provides support to make the right decisions based on these data (that can help reduce costs and be more efficient),
- AgroVIR is independent in the market, helping farmers with cloud-based solutions,
- AgroVIR is an innovative management information software system which supports decision making processes through a complex change of approaches.
- Source: <https://www.agrovir.eu/EN/rolunk-EN.html>



Agricultural innovation – good practices

- **THE AGROVIRTUS COMPETITION**

- The Agrovirtus competition is a digital agricultural technology case study competition implemented on the initiative of AgroVIR, involving several sectoral actors (educational institutions, agricultural companies, state institutions, professional organizations). About 300 undergraduate students took part in the 2018 competition and acquired knowledge that can be used in practice.

- **AGROVIRTUS SERVICES**

- The main goal of the organizers of the competition is that Agrovirtus should not only be an annual competition, but also a complex career and career support program for university students. As a result, the program organizers have recently implemented the following program elements:
- Agrovirtus Workshop, Agrovirtus Career, Agrovirtus Community / Alumni

EIP (RDP 2014-2020)

- With the launch of the EIP, another type of innovation (more complex, collaborative, multi-stakeholder) is expected. Perhaps the biggest challenge in this area will be that in many cases the actors themselves are now learning how it works. This requires patience on the one hand and ensuring that the process is not reduced to the level of a simple investment project on the other.

Application	Application framework HUF billion (HUF 310 / EUR)	Number of applications received (submitted + withdrawn)	Indoor demand HUF billion	Number of supported applications	Funding HUF billion	Payment HUF billion
EIP	26,71	169	28,02	79	13,53	0

Recently

- In the case of several RDP applications, the applicants could **receive extra points** if they used an advisor;
- The **use of an advisor was mandatory** for certain projects and calls (eg organic farming);
- **Involvement of an advisor in the EIP OG was mandatory;**
- Organizations designated for Supporting Advice have been selected and the provision of supported advice is ongoing;
- The legal background of advisory services has been updated;
- The knowledge of consultants is up-to-date by designing and operating a multi-level training system;
- The annual consulting report was introduced, as a result of which we have an overview of the consulting activity;
- The data of the advisors are available to the farmers (topic area, specialty, geographical area of operation);
- In order to increase the prestige of consulting, from 2019, as planned, year after year, the **“Advisor of the Year” competition**;
- The basic training of advisors has been supplemented with the module “Application of the basics of digital technology in agriculture”.

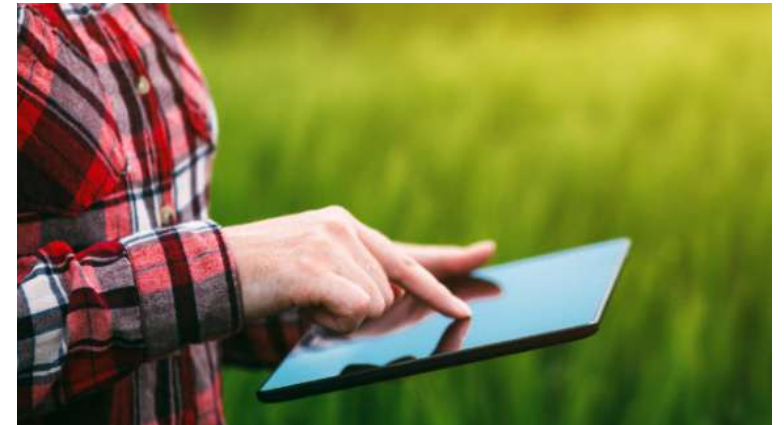
Advisory services - present and future

- In the **Train The Trainer** training program in the I2connect H2020 program, HCA announced an open competition (May 2020), out of 8 applicants, based on objective criteria, 2 main experienced consultants were selected to take part in the cross-border training and hand over the acquired knowledge to domestic consultants.
- In the **FairShare Horizon 2020** project, HCA helps farmers prepare for the digital age so that consultants can incorporate access to, try out, existing digital tools into their advisory processes. As part of the project, an Agricultural-Digital Toolkit (DATs Inventory) was built, which will be available from February 2020 after a short registration. HCA helps to identify DATs needs / needs in the project through questionnaires from both consultants and farmers.
- **HCA is a member of the EUFRAS and SEASN** international advisory networks, where it is informed about various good practices and conveys Hungarian good practice.



For the future

- Hungary, September 2019, HCA repared a training needs survey of experts related to digital knowledge and precision farming. The questionnaire was completed by nearly a third of the advisors (270 people), of whom 250 indicated that they would like to participate in digital literacy trainings.
- Advisors require training in the following subject areas:
- a) precision crop production,
- b) the use of digital solutions in rural development,
- c) digital solutions in business decision support,
- d) precision horticultural knowledge,
- (e) precision animal husbandry, and
- (f) precision game management.

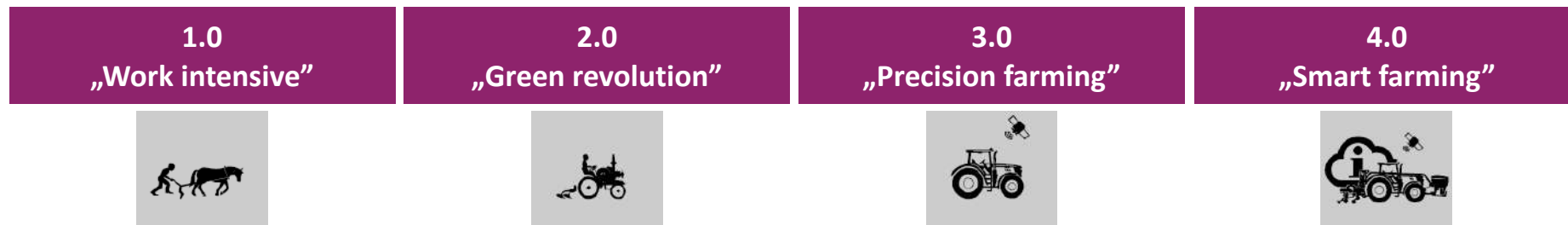


For the future

- Based on the experience so far, the Hungarian consultants are particularly interested in the following topics:
- mapping, recording, monitoring;
- drone treatment, drone use, (spraying, board recording);
- precision plant protection;
- digitization in area-based subsidies, GPS area measurements.
- In answering the questionnaire, consultants would prefer practical training.

For the future

- We want to develop the mandatory training of consultants by focusing on the topic areas of consultants
- In connection with the Digital Agricultural Strategy, we intend to implement multilevel, practice-oriented trainings and trainings in connection with digital technologies.

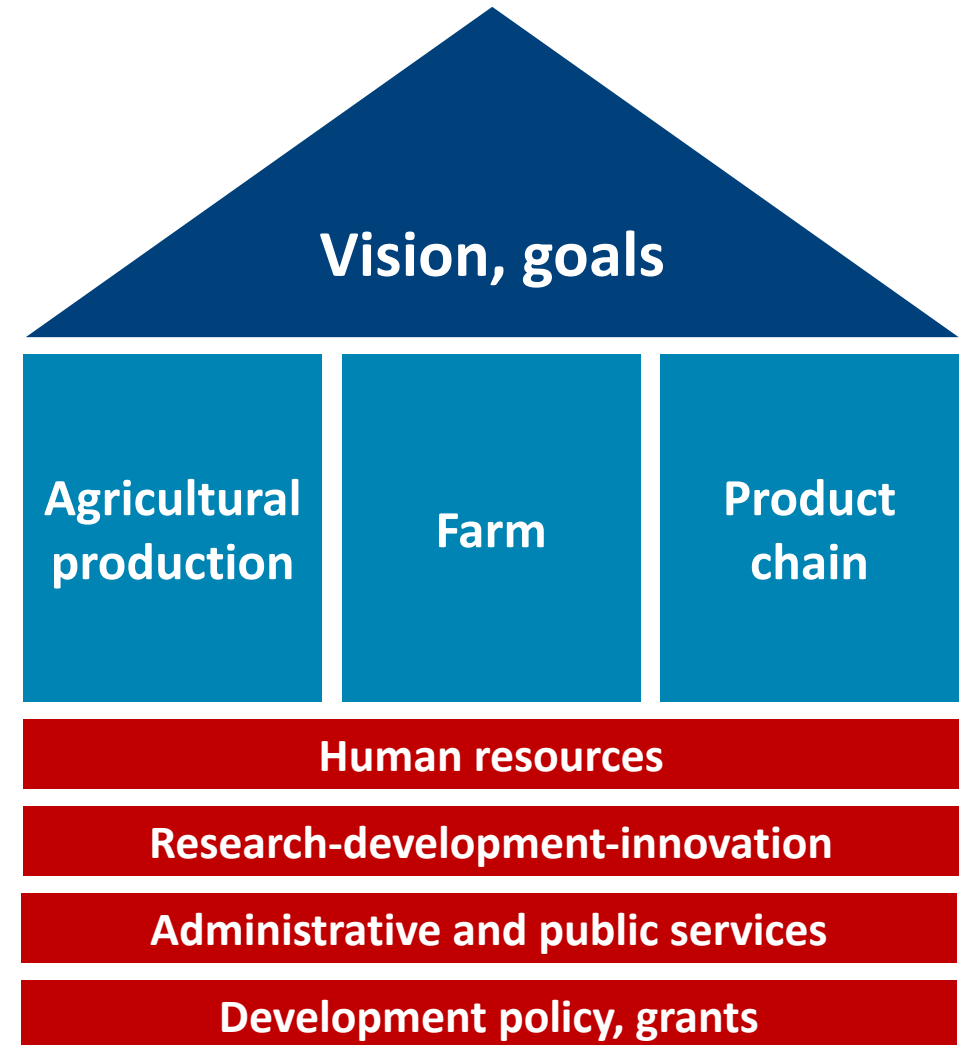


Digital Agricultural Strategy

- DAS 2.0's implementation is also supported by other projects currently implemented
- **Training** of brand-independent agricultural information specialists in digital technologies
- **Designing the operation** of the Digital Agrarian Academy, drawing up an operational plan, functions, organizational structure, quality assurance plan and budgeting
- **Agrarian Data Integration** project, which is aimed at the assessment of agricultural data and information, is to enable the collection and processing data and information, possibly toll-free for agri-businesses, contributing to the increase of efficiency
- Developing an **effective form of grant** for increasing the penetration of ICT in the agricultural economy and application, and compiling a proposal

Digitalisation

- Effects of the changes resulting from digitization significantly transform the technological and economic processes of the agricultural sector, employment and social relations
- From a service, digitalisation has grown to be a competitive factor
- Agrarian digitalisation began in the development of Industry 4.0 that supports production organization based on the needs of consumers



Discussion:

All further comments and suggestions very welcome!



**Thank you for your
attention!
and for your active participation
and commitment!**

Report available at:

https://ec.europa.eu/info/news/knowledge-and-innovation-unlocking-potential-food-and-farming-2019-sep-26_en (more paper copies can be asked to Inge.Van-Oost@ec.europa.eu)

