MINISTRY
OF AGRICULTURE

„SoilWeb” -
Soil protection in precision crop production

Anikó, Juhász Ph.D.

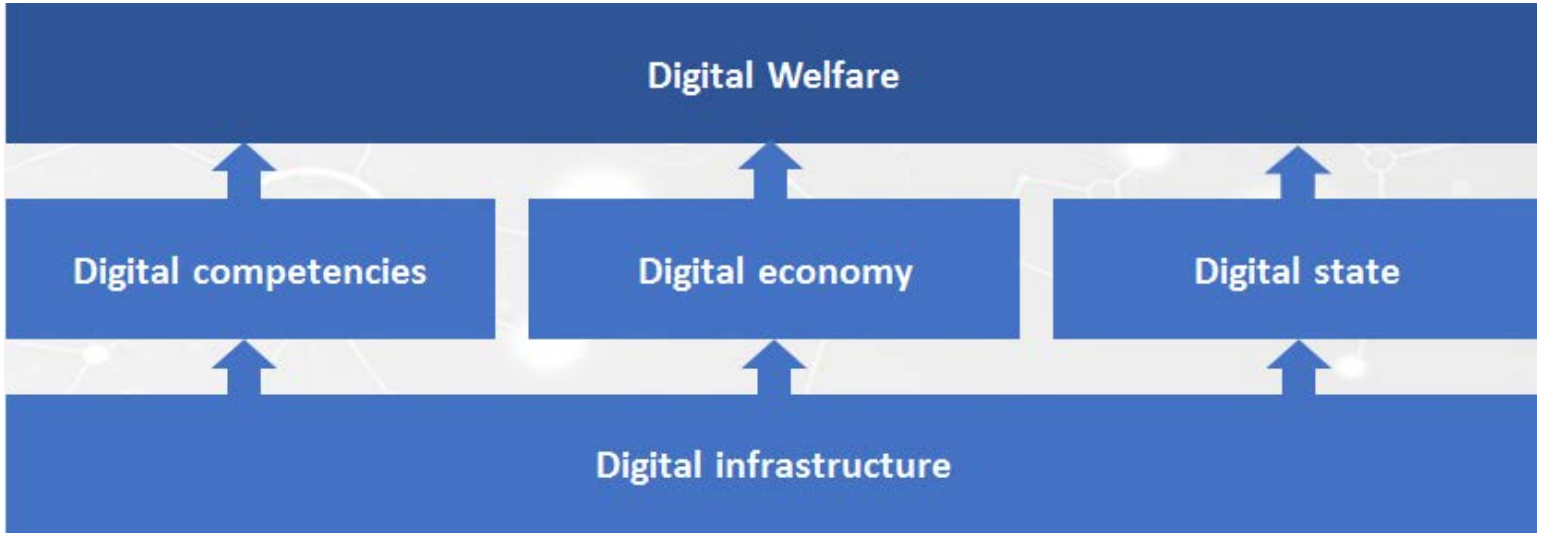
Deputy State Secretary

July 8, 2020

Digital Welfare Program 2.0 to support every citizen and enterprise in Hungary

MINISTRY OF AGRICULTURE

- **Digital Infrastucture** can be available by everyone in an affordable manner;
- Acquiring and continually developing basic **digital skills** will be possible;
- Strengthening of **digital economy**, which is playing an increasingly important role in the expansion of competitiveness, growth and employment
- Availability of electronic administrative developments and services meeting citizen's needs (**digital state**)



National Digital Agriculture Strategy (NDAS) objectives

MINISTRY OF AGRICULTURE

- Contribute to improve efficiency of agricultural production
- Increase domestic and international market share of the Hungarian IT industry
- Spread use of existing ICT solutions
- Spread use of existing R&D results
- Create information flow between research and production
- Exploit benefits of advancing ICT
- Support to assess and mitigate risks

NDAS intervention logic

MINISTRY OF AGRICULTURE

	Agricultural production	Farm	Product chain
Human resources	Developing digital competencies Developing innovation ecosystem		
Research-development-innovation	Developing digital competencies Developing innovation ecosystem		
Administrative and public services	Digital Agricultural Costs Reduction Land cover data system Fruit cadastre Adjusting to digital technology	Digital Cellar Registry „SFADN” „SoilWeb” Crop estimation based on remote sensing Use of water resources	Forest Information Framework National Food Chain Reporting Center E-commerce development
Farm development program	Development of the digitization of the sector		

The importance of soil

MINISTRY OF AGRICULTURE

- Soil - as an environmental element - is essential to the sustainment of life and the preservation of a livable environment
- Soil is a conditionally renewable natural resource
- EU Common Agricultural Policy (CAP) plan for 2021-2027 addresses the issue of sustainability of natural resources
- We need data on condition of soils in a form, which can be linked to soil interventions and measures
- The suitable **area for agricultural cultivation is nearly 5 million hectares** in Hungary
- The number of performed soil laboratory tests are close to **200,000 samples / year** in Hungary

Soil protection in NDAS

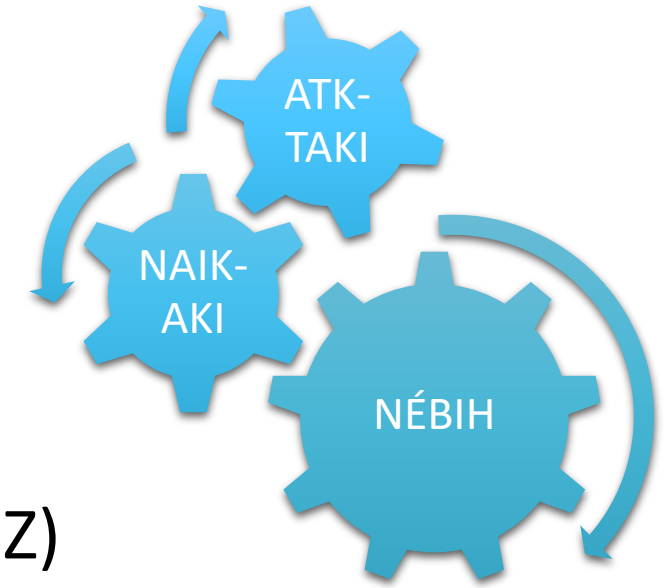
MINISTRY OF AGRICULTURE

- Digital Agriculture Strategy (NDAS) deals with the needs for soil data and the available significant data assets
- The main results and related indicators expected during the implementation of the measure are the following:
  - establishment of Soil Protection Advisory System,
  - web application related to administrative data service,
  - decreasing nitrate load, under-fertilization, GHG emissions,
  - increasing fertilization efficiency and cost-effectiveness.
- The measure in the NDAS emphasizes that the system should not result/cause additional administrative obligations either on the producer or the laboratories.
- The aim of the SoilWEB app is a complex IT system, database, and development of available services that meet current needs and helps in the structured storage and use of the large number of generated soil data.

Participants in the professional implementation of the project

MINISTRY OF AGRICULTURE

- National Food Chain Safety Office (NÉBIH)
- National Agricultural Research and Innovation Centre – Research Institute of Agricultural Economics (NAIK-AKI)
- Centre for Agricultural Research - Institute for Soil Sciences and Agricultural Chemistry (ATK-TAKI)



- Hungarian Ministry of Agriculture (AM)
- Laboratories
- Hungarian Chamber of Agriculture (NAK)
- National Infocommunications Service Company Ltd. (NISZ)

Thank you for your attention!

MINISTRY
OF AGRICULTURE