National Digital Agriculture Strategy (NDAS)

ITU 2019
E-agriculture

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Deputy State Secretary
Budapest, 11 September 2019
Preparation for Common Agricultural Policy post 2020

+ cross-cutting objective: modernisation, knowledge sharing, innovation, digitalisation

THE 9 CAP OBJECTIVES

- Increase competitiveness
- Rebalance power in food chain
- Ensure fair income
- Climate change action
- Environmental care
- Preserve landscapes & biodiversity
- Support generational renewal
- Protect food & health quality
- Vibrant rural areas
“...the future of agri-food sector is based on information and knowledge…”
(Agri-food Sector Development Concept of Hungary 2017-2050)

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<thead>
<tr>
<th>Goals</th>
<th>Agricultural production</th>
<th>Farm</th>
<th>Product chain</th>
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<tbody>
<tr>
<td>Strategic goals</td>
<td>Wider use of precision farming (S1)</td>
<td>Use of management control applications in farm management, preparation of decisions (S2)</td>
<td>Product tracking systems and online business development (S3)</td>
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<tr>
<th>Horizontal goals</th>
<th>Human resources</th>
<th>Research-development-innovation</th>
<th>Administrative and public services</th>
<th>Development policy, grants</th>
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<td>Development of digital competences of food business operators (H1.1)</td>
<td>Development of a Digital Agri-Innovation Environment (H2.1)</td>
<td>Reducing the cost of access to public and digital services (H3.1)</td>
<td>Promotion of precision management (H4.1)</td>
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<td>Provision of digital agricultural advice to farmers (H1.2)</td>
<td>Development of a digital agrarian startup ecosystem (H2.2)</td>
<td>Legal deregulation for exploiting the potential of digital technology (H3.2)</td>
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<td>Development of sector data collection and processing (H3.3)</td>
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By collecting, processing, automating and robotizing technological processes, it contributes to increasing the profitability of the food economy, including the agricultural production, in addition to the efficient use of available environmental resources.
Digital Welfare Program 2.0 to support every citizen and enterprise in Hungary

- **Digital Infrastructure** 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**)
NDAS objectives

• 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 focus areas

• Digitization transform the technological and economic processes of the agricultural sector, employment and social relations
• Digitalisation is more than service, it has grown to be a competitive factor
• Agricultural digitalization begins at the development of E-industry 4.0 to support production organization based on the consumers’ needs
# NDAS intervention logic

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<td>Digital Agricultural Costs Reduction</td>
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<td>Adjusting to digital technology</td>
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<td>Digital Cellar Registry</td>
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<td>ERDEINK - Forest Information Framework</td>
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<td>Further development of the Fisheries Information System (HALIR)</td>
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<td>Crop estimation based on remote sensing</td>
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<td>Use of water resources</td>
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Digital Agricultural Academy (DAA)

• Goal: To increase the digital maturity of Hungarian agriculture in order to achieve better efficiency of agriculture

• DAA Training process:
  
  ![Diagram](image)

  - Explore possibilities of digitization
  - Acquire the necessary basic knowledge
  - Compile farm development plan

• Tools:
  1. Participation events (farm demonstration, local events, conferences)
  2. Online interface (Knowledge Based, E-learning system, event management interface, pilot plant management)
  3. Farm Advisory System (in AKIS)
Agricultural Research

Declaration a smart and sustainable digital future for European agriculture and rural areas

- Strengthening support for research
- Establishing an innovation infrastructure
- Creating a European dataspace for smart agri-food applications
Main objectives of Declaration

• Encourage an evolution of farming systems towards more resilience and resource efficiency by digital technologies;

• Build on robotics for precision farming and CAP implementation systems based on digital data management solution;

• Create conditions so that all workers in the agricultural sector have an opportunity to acquire the skills needed for the smart farms;

• Improve quality of life for all inhabitants in rural areas and boost the competitiveness of European farms and rural businesses.
Common undertaken activities

• Strengthening support for research
• Establishing an innovation infrastructure
• Creating a European dataspace for smart agri-food applications
• Facilitate the cross-border pooling and sharing of agricultural data between farmers and throughout the value chain
• Maximising impact
• Expand ongoing initiatives to support the CAP's transition towards a result-based policy (in support of the CAP’s cross-cutting objective of modernising the sector)
Smart Farm Accountancy Data Network (SFADN)

- Pilot project of the sectorial data integration plan for future CAP

**Aims:**
- Digitalisation of data collection
- Integration of spatial dimension, market and agro environmental data into FADN
- Use of ERP systems and administrative data to reduce response burden
- Focus on environmental performance

**Expected result:**
- **Real time access** to production, financial, agro environmental and market information with **spatial dimension** while **reducing response burden**

**Time horizon:** 2020-2022
Thank you for your attention!