

Smart faRming innOvatiOn Training SmartROOT



New trends, experiences and opportunities

FOOD TECHNOLOGY INTERNATIONAL SYMPOSIUM

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SmartROOT - Smart faRming innOvatiOn Training



KA203 - Strategic Partnerships for higher education

Start Date 01/09/2020

End Date 31/8/2023

Project Total Duration 36 months

National agency of the Application Organization EL01 Greek State Scholarship's Foundation (IKY)

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SmartROOT - Partners



3 HEIS and 4 SMEs from 5 European countries

- University of Western Macedonia (UOWM)
- International Hellenic University (IHU)
- SIDROCO Holdings Limited (SIDROCO)
- Spanish Food and Drink Federation (FIAB)
- INFALIA P.C. (INFALIA)
- Swedish University of Agricultural Sciences (SLU)
- AGRIVI D.O.O. (AGRIVI)



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SmartROOT - Summary



- Preparation of a new Joint Master Degree program in MFS by introducing ICT tools.
- Involve students in the preparation and assessment process
- A ready-to-run Joint Master Degree program

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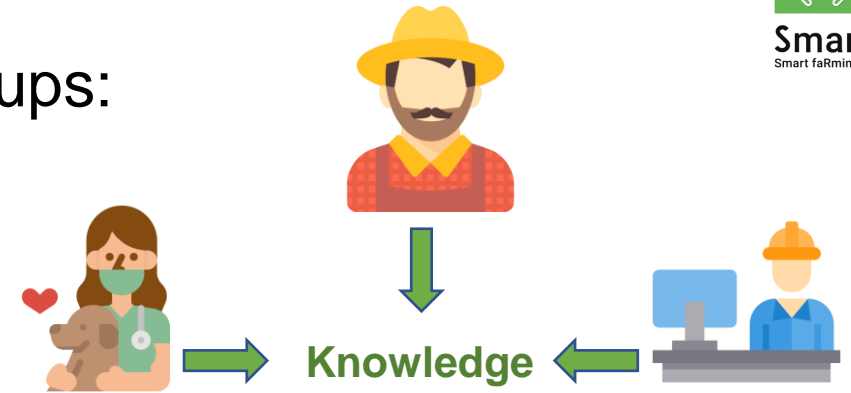
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SmartROOT - Aim



- Join the knowledge of different scientific groups:
 - Agronomists
 - Veterinarians
 - Computer engineers
- Delivery of a knowledge framework
- Preparation of future professionals in the agricultural sector
- Benefits of technologies brought to farms
- Familiarization of farmers with digital technologies



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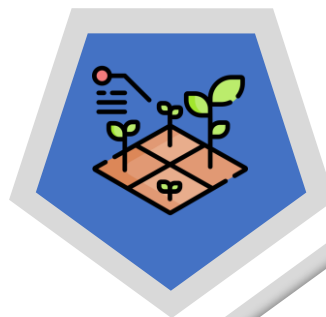
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SmartROOT - Objectives



Introduction of CSA and MFS to HEIs
co-design their curricula



Development of a CSA platform to foster MFS



Education of students to solutions for CSA



Development of a continuous training platform



Foster a European network between academia, experienced farmers and stakeholders.



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SmartROOT - Outputs

SmartROOT's results will be achieved through the following outputs:

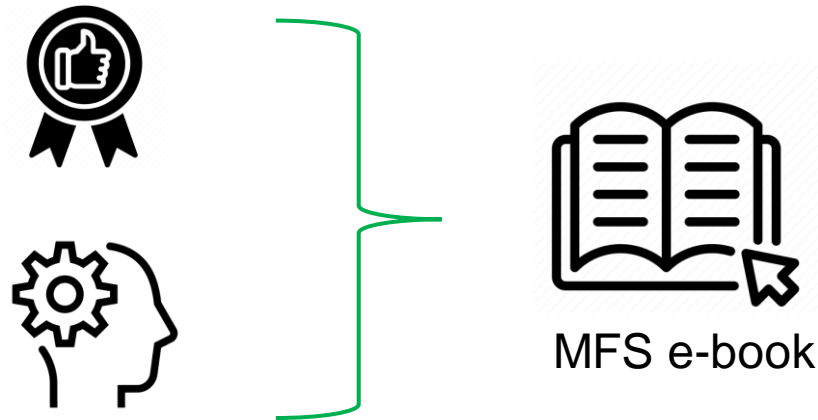
- O1 MFS e-book
- O2 Open Hub for Knowledge Exchange
- O3 SmartROOT Virtual Farm Hub
- O4 MFS Educational Management Platform
- O5 Augmented Reality Learning Environment
- O6 SmartROOT Assessment Toolkit and Curriculum preparation



SmartROOT
Smart farming innovation Training

O1 - MFS e-book

- Analyze, model and evaluate best practices in Mixed Farming Systems.
- Define a list of technical and soft skills essential for stakeholders to ensure efficient and sustainable agriculture.



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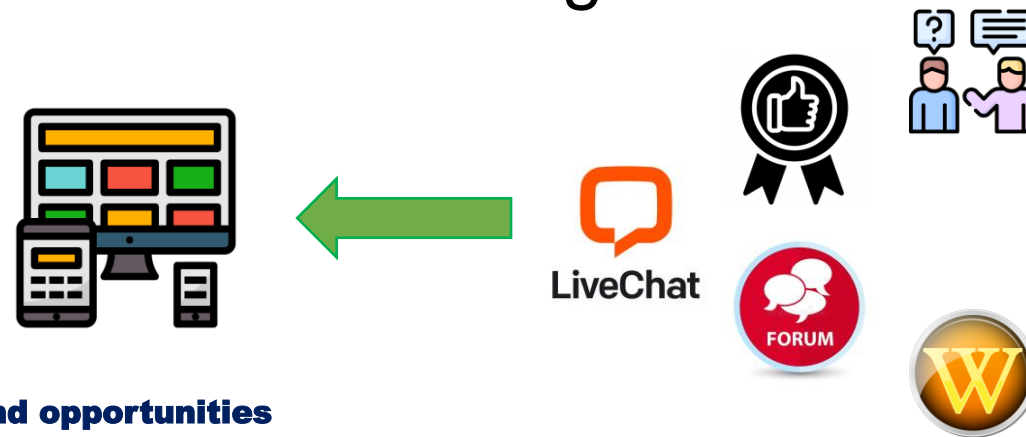
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O2 - Open Hub for Knowledge Exchange

- Development of a web-based platform for knowledge exchange.
- Support of tools such as live chat, forum, wikis.
- Promote the open dialogue and experience sharing between experts from different scientific areas
- Best practices in MFS will emerge.



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O3 - SmartROOT Virtual Farm Hub

- Development of a web-based application representing a virtual farm for educational purposes
- Inclusive of configuration options
- Experimental data are available from previous projects
- Offer a knowledge ecosystem around MFS



O4 - MFS Educational Management Platform

- Virtual training environment where students can configure parameters related to large MFS
- Sections for crop management, financial management, employee management, machinery management, and a decision support system.
- Will offer post-graduate students the opportunity to improve their knowledge according to the market needs.



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O5 - Augmented Reality Learning Environment

- Augmented reality educational environment
 - Implemented with ARTutor from IHU
- Holistic teaching approach
 - serious games
 - mobile applications
 - data analysis
 - AR
- End-users to be involved in training activities







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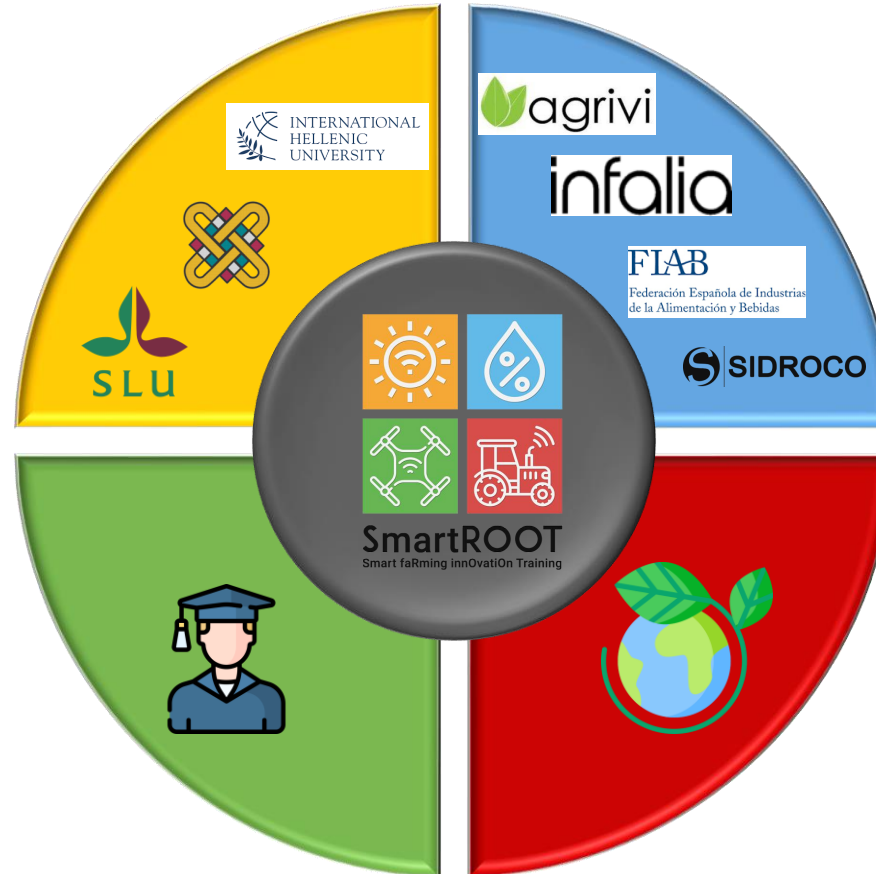
O6 - SmartROOT Assessment Toolkit and Curriculum preparation

- Assessment
 - Completed tasks 
 - Achievements 
 - Evaluation reports 
- Curriculum finalization for the Joint Master Degree program in MFS 

SmartROOT Impact



Higher Education Institutions
Skills, curricula, opportunities



Companies & Professionals
Participatory society

Students
Broaden students' knowledge

Environment & Society
Attract young people to the agricultural sector

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SmartROOT Impact: Higher Education Institutions

- Equipment of students and teaching staff with **skills**:
 - Academic
 - Professional
 - Social
 - Intercultural
- Reform existing **curricula** with new teaching approaches



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SmartROOT Impact: Higher Education Institutions



- Provide education in:
 - ICT
 - Climate Change
 - Mixed Farming Systems
- Synergy opportunities between academic and market partners



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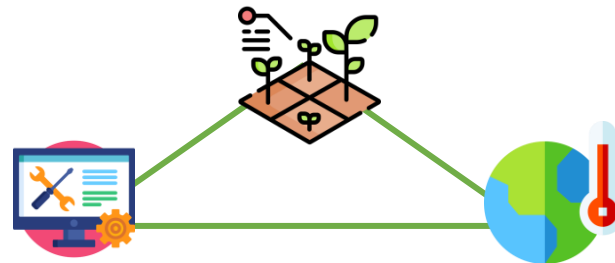
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SmartROOT Impact: Students



- **Active participation** in the design and assessment of a **master degree program**
 - Skills development in farming approaches with IT tools
 - Farming, IT, and climate change mitigation
- **Delivery of services** attuned to the stakeholders' needs
- International cooperation, intercultural education, foreign language skills enhancement



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SmartROOT Impact: Agriculture Companies & Professionals

- **Collaboration** among agriculture stakeholders
- **Adoptable outputs in daily operations**, leading to increased
 - Sustainability 
 - Effectiveness 
 - Financial Viability 
- Agronomists can employ the tools to provide **added-value services**



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SmartROOT Impact: Environment & Society



- **Attract** young people to the agriculture sector
- **Reduce** unemployment
- Ensure **environmental sustainability** as young farmers feel responsible for:
 - Guaranteeing a sustainable agricultural sector
 - Protecting the environment and the biodiversity

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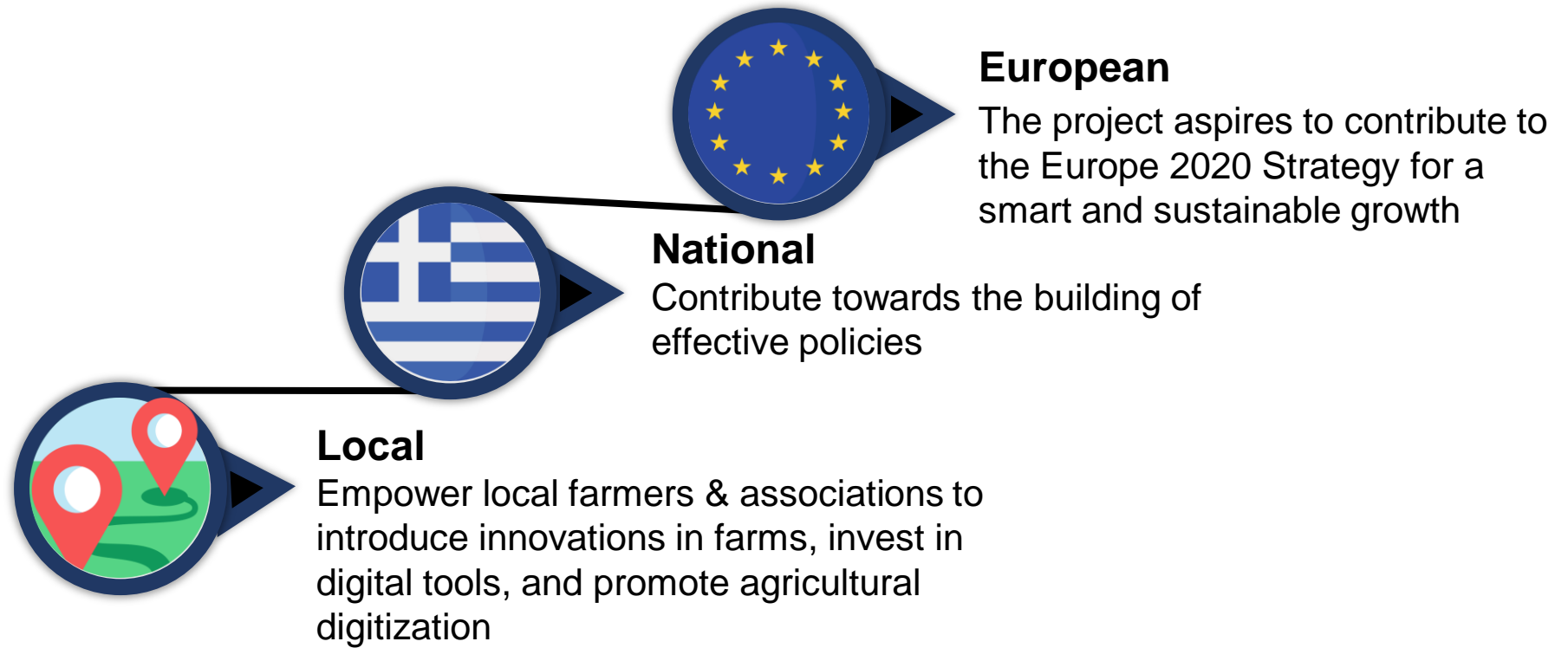
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SmartROOT Impact Levels



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