



smart AKIS
Smart Farming Thematic Network



THIS PROJECT HAS RECEIVED FUNDING FROM
THE EUROPEAN UNION'S HORIZON 2020 RESEARCH
AND INNOVATION PROGRAMME UNDER GRANT
AGREEMENT N. 696294

Advisory platform for small farms based on earth observation



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|---|---|
| Title | Advisory platform for small farms based on earth observation |
| Title (native language) | |
| Category | <ul style="list-style-type: none"> • Recording or mapping technology • Farm Management Information System |
| Short summary for practitioners (Practice abstract) in English) | <p>Earth Observation (EO) refers the collection of information about our planet, using remote sensing technologies such as sensors mounted on satellites or drones. The European Union's Copernicus programme provides EO data freely and openly for use by policy-makers, citizens and businesses alike. APOLLO makes full use of this invaluable resource, as well as drawing on other sources of globally available data. Remote sensing data from sensors on Earth Observation satellites have demonstrated their potential to measure soil moisture quantitatively on bare surfaces and those covered by short vegetation. Thanks to their ability to operate in all weather conditions and to wide coverage, data from Synthetic Aperture Radar (SAR) offer the opportunity to monitor large areas with a high spatial resolution. The use of SAR images, such as those captured by the Copernicus programme's Sentinel-1, can provide a precise estimation of the surface soil moisture.</p> |
| Short summary for practitioners | |
| Website | http://apollo-h2020.eu/ |
| Audiovisual material | |
| Links to other websites | |
| Additional comments | |

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|------------------------------|---|
| Keywords | Farming practice Farming equipment and machinery Soil management / functionality Water management |
| Additional keywords | affordable information, Earth Observation System, Monitoring |
| Geographical location (NUTS) | ES, GR, RS |
| Other geographical location | |
| Cropping systems | Arable crops Tree crops Open field vegetables Vineyards Grassland |
| Field operations | Tillage Weed control Crop protection Irrigation Harvesting |
| SFT users | Farmer |
| Education level of users | Secondary education Apprenticeship or technical school education University education |
| Farm size (ha) | 0-2 2-10 10-50 |

Project info

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| Project name | APOLLO: Advisory platform for small farms based on earth observation |
| Project coordinator | DRAXIS ENVIRONMENTAL S.A (EL) |
| Project partners | TECHNISCHE UNIVERSITAET WIEN EVENFLOW SPRL AGROTIKOS SYNETAIRISMOS PELLAS FACULTY OF CIVIL ENGINEERING UDRUZENJE POLJOPRIVREDNIKA OPSTINE RUMA AGRICULTURAL UNIVERSITY OF ATHENS STARLAB BARCELONA SL AGRISAT IBERIA SL |
| Project period | 2016 - 2019 |
| Project status | ongoing |
| Objective of the project (native language) | |
| Objective of the project (in English) | |

Effects of this SFT

| | |
|---|----------------|
| Productivity (crop yield per ha) | Some increase |
| Quality of product | Some increase |
| Revenue profit farm income | Some increase |
| Soil biodiversity | Some increase |
| Biodiversity (other than soil) | No effect |
| Input costs | Some decrease |
| Variable costs | Some decrease |
| Post-harvest crop wastage | Large decrease |
| Energy use | Some decrease |
| CH4 (methane) emission | Some decrease |
| CO2 (carbon dioxide) emission | Some decrease |
| N2O (nitrous oxide) emission | Some decrease |
| NH3 (ammonia) emission | Some decrease |
| NO3 (nitrate) leaching | Some decrease |
| Fertilizer use | Some decrease |
| Pesticide use | Some decrease |
| Irrigation water use | Some decrease |
| Labor time | Large decrease |
| Stress or fatigue for farmer | Some decrease |
| Amount of heavy physical labour | Some decrease |
| Number and/or severity of personal injury accidents | No effect |
| Number and/or severity of accidents resulting in spills property damage incorrect application of fertiliser/pesticides etc. | No effect |
| Pesticide residue on product | No effect |
| Weed pressure | Some decrease |
| Pest pressure (insects etc.) | Some decrease |
| Disease pressure (bacterial fungal viral etc.) | Some decrease |

Information related to how easy it is to start using the SFT

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|--|----------------|
| This SFT replaces a tool or technology that is currently used. The SFT is better than the current tool | strongly agree |
| The SFT can be used without making major changes to the existing system | agree |
| The SFT does not require significant learning before the farmer can use it | disagree |
| The SFT can be used in other useful ways than intended by the inventor | no opinion |
| The SFT has effects that can be directly observed by the farmer | strongly agree |
| Using the SFT requires a large time investment by farmer | no opinion |
| The SFT produces information that can be interpreted directly | strongly agree |

[View this technology on the Smart-AKIS platform](#)

SMART AKIS PARTNERS:



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