



smart **AKIS**  
Smart Farming Thematic Network



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## Farm Tools



Title	Farm Tools
Title (native language)	
Category	<ul style="list-style-type: none"> <li>• Recording or mapping technology</li> <li>• Farm Management Information System</li> </ul>
Short summary for practitioners (Practice abstract) in English)	<p>FarmTools is a web solution for decision and operation support, that can be securely used from everywhere, and has its design and use based on a geographic approach to the farm everyday operation and management procedures. Its functionality has a season end-to-end extension, starting with the support to early land management decisions and concluding with the generation of harvest production reports, passing through harvest production estimates, parcels crop sequence planning and harvest evolution monitoring. FarmTools has its data infrastructure oriented to relate all the information, validate all the inserted records and keep history for later efficiency analysis and production trends. FarmTools includes an Earth Observation component, providing archiving and search features for UAV or aircraft NDM images storage. FarmTools also has some of its features brought to the field, by using smartphones or tablets allowing for on-site validation, events registration and work force management. FarmTools is available in a Software as a Service (SaaS) paradigm, with cost proportional to the production area, democratizing and foster technology use also among medium and small farmers. Within agri-cooperatives or big size enterprises, FarmTools can also be taken as a procedures normalization and knowledge dissemination tool.</p>
Short summary for practitioners	
Website	
Audiovisual material	
Links to other websites	
Additional comments	
Keywords	Agricultural production systems   Farming practice   Soil management / functionality
Additional keywords	geographic, planning, harvesting, reporting, archive, imagery
Geographical location (NUTS)	EU
Other geographical location	
Cropping systems	Tree crops   Vineyards
Field operations	Sowing   Harvesting   Crop and soil scouting
SFT users	Farmer
Education level of users	Secondary education   Apprenticeship or technical school education   University education

Farm size (ha)	2-10   10-50   50-100   100-200   200-500   >500
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## Company info

Company name	Esri Portugal
Address	Rua Julieta Ferrão, 10, 10.º A, Lisboa, Portugal
Website	
Patent status	

## Effects of this SFT

Productivity (crop yield per ha)	Some increase
Quality of product	Some increase
Revenue profit farm income	Some increase
Soil biodiversity	No effect
Biodiversity (other than soil)	No effect
Input costs	Some decrease
Variable costs	No effect
Post-harvest crop wastage	No effect
Energy use	Some increase
CH4 (methane) emission	No effect
CO2 (carbon dioxide) emission	No effect
N2O (nitrous oxide) emission	No effect
NH3 (ammonia) emission	No effect
NO3 (nitrate) leaching	No effect
Fertilizer use	Some increase
Pesticide use	Some increase
Irrigation water use	Some increase
Labor time	Large increase
Stress or fatigue for farmer	Large increase
Amount of heavy physical labour	No effect
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	No effect
Pest pressure (insects etc.)	No effect
Disease pressure (bacterial fungal viral etc.)	No effect

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

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	agree
The SFT can be used in other useful ways than intended by the inventor	agree
The SFT has effects that can be directly observed by the farmer	agree
Using the SFT requires a large time investment by farmer	disagree
The SFT produces information that can be interpreted directly	agree

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

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