

# Farmers benefit from satellite coverage

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Satellites used to guide farming. Credit: TalkingFields

Farmers can now call on the latest satellite information using the unique TalkingFields service to get the best from their land while cutting the environmental cost.

Globally available satellite data are fine-tuned to the needs of individual farmers by the Vista company in Germany, who combine optical satellite images with information from ground sensors, satnav and sophisticated crop growth models to enable precision farming on a local scale.

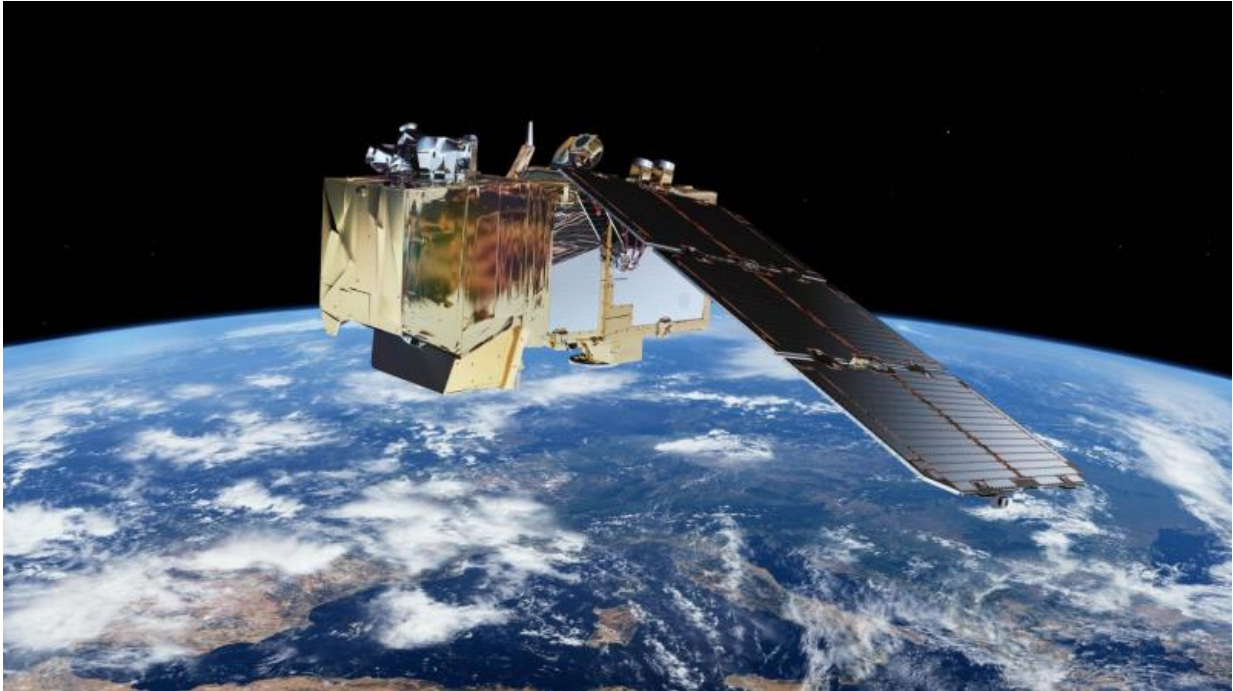
"Agriculture is becoming a data-driven business," explains Heike Bach, CEO at Vista Vista is one of 50 expert users evaluating data from the Sentinel-2A Earth observation satellite launched in June 2015 as part of the EU's Copernicus programme. "The data are excellent," she notes.

TalkingFields began as a project within ESA's Integrated Applications Promotion programme, and is now helping farmers in Germany, Russia, Denmark, the Czech Republic, Poland, Latvia, Hungary and Kazakhstan.

Vista and its partners recently won a gold award for innovation at the biennial international Agritechnica trade fair in Hannover. It is the first time this industry award has been given to smart farming relying on satellite data.

Vista works with agricultural suppliers to provide a tailored service. For instance, by optimising a farmer's use of fertiliser, costs and environmental effects can be reduced.

A farmer uses satnav to pinpoint the area of a field that requires attention and cultivate just that area.



Sentinel-2. Credit: ESA/ATG medialab

Vista worked with partners FarmFacts and John Deere to create an easy-to-use system for precise, site-specific application of organic or mineral fertilisers.

The runoff from overuse of nitrogen and phosphate has serious environmental repercussions, causing ground water pollution and vast seasonal algal blooms in the oceans.

"We're targeting zero runoff," says Dr Bach. "Minimising the environmental cost of farming in this way is a real benefit to society."

ESA's Tony Sephton said, "There are existing services variously using Earth observation data, [satellite](#) navigation, farm management software and crop models, but TalkingFields combines them all."



Credit: Vista GmbH

The models become increasingly accurate as results are fed back into the system.

"With TalkingFields the emphasis is on providing a service. Farmers are not given raw [satellite data](#). Instead, they are given advice on actions to be taken throughout the growing season," he adds.

"The Copernicus Earth observation data should enable us to offer very affordable services – essential for the farming industry."

Provided by European Space Agency

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