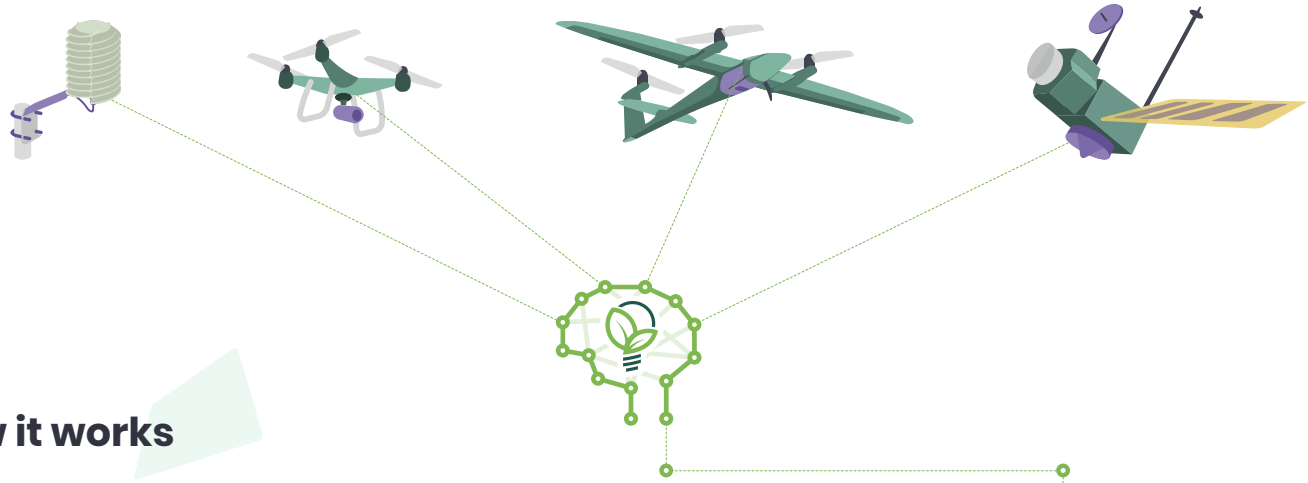
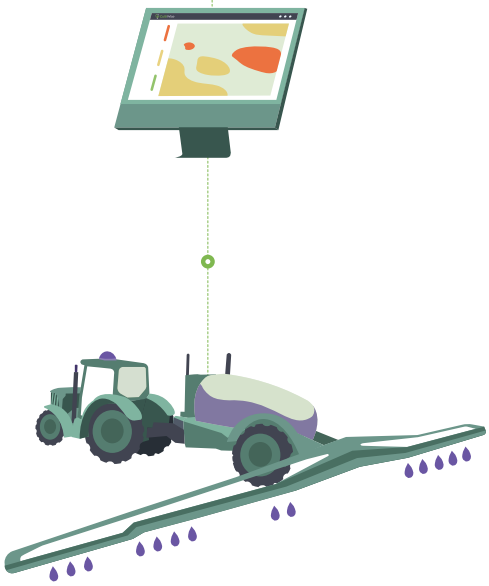
CultiWise

Sometimes, less is more



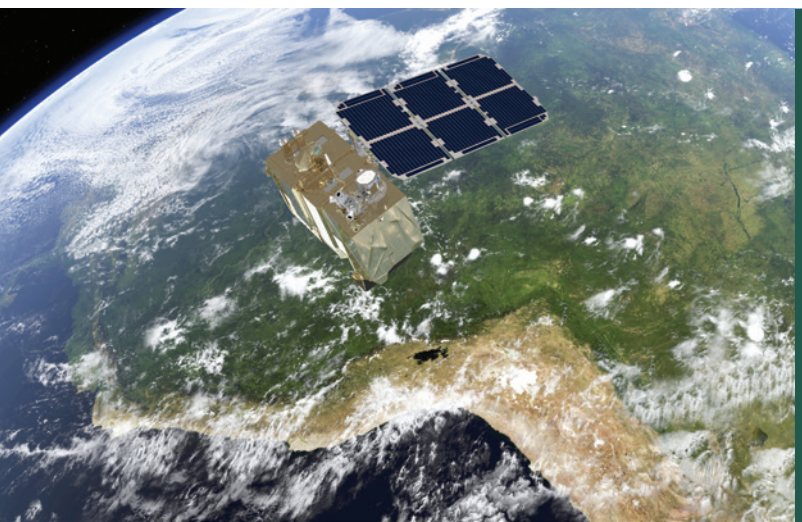
How it works

The agriculture industry is transforming rapidly thanks to innovations allowing us to gather information at a speed and accuracy that was unthinkable before. Data sources and crop analysis opportunities thanks to deep learning and computer vision were developed rapidly in the last decade. With the purpose of allowing farmers to catch up with the trends, we have prepared a user-friendly and simple platform so they can optimize their work based on data-driven decisions.



Let us to introduce you Cultiwise!
World's first platform allowing you to react to the ever-changing situation in your fields just in time. Join the revolution in agriculture.
Because sometimes, less is more.

Data sources



Satellites

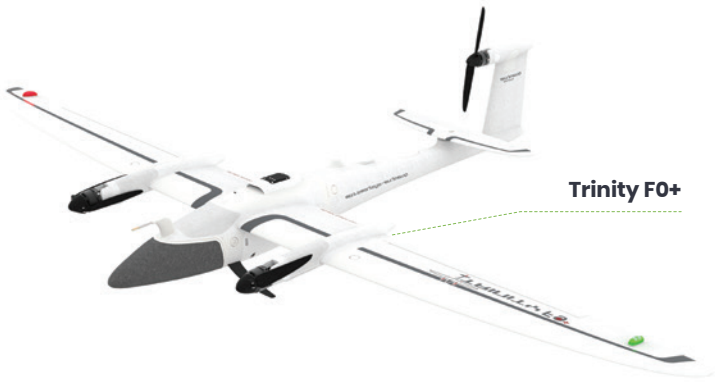
Satellite systems provide a historical series of periodic imagery, allowing us to analyze long-term changes in agricultural fields. Thus the resulting map of yield potential and production zones can then serve as a basis for variable rate application of fertilizers and further agrochemical interventions.

Drones

Drones can obtain faster and more detailed imagery than satellites for more timely assessment to provide immediate feedback to the farmer to take action. The higher spatial resolution does not just look better. Algorithms can segment for more accurate and sensitive results from drone data, where individual plants can be segmented for analysis.

Cultiwise uses sophisticated computer vision, data science, and deep learning algorithms to effectively monitor fields and offers the solution for high precision aerial surveillance imagery to increase the efficiency of agronomical interventions and thus achieve sustainable agriculture.

Phantom Multispectral



Trinity F0+

IoT meteostations

Cooperation between SkyMaps and BARANIDESIGN is specialized in precise and reliable atmospheric measurements with connection to agriculture. Research & Development focuses on achieving long-term stability of temperature, humidity, and wind measurement for calculation infection risks and impacts. Sensors are designed for ease of use and interchangeability for on-site service.

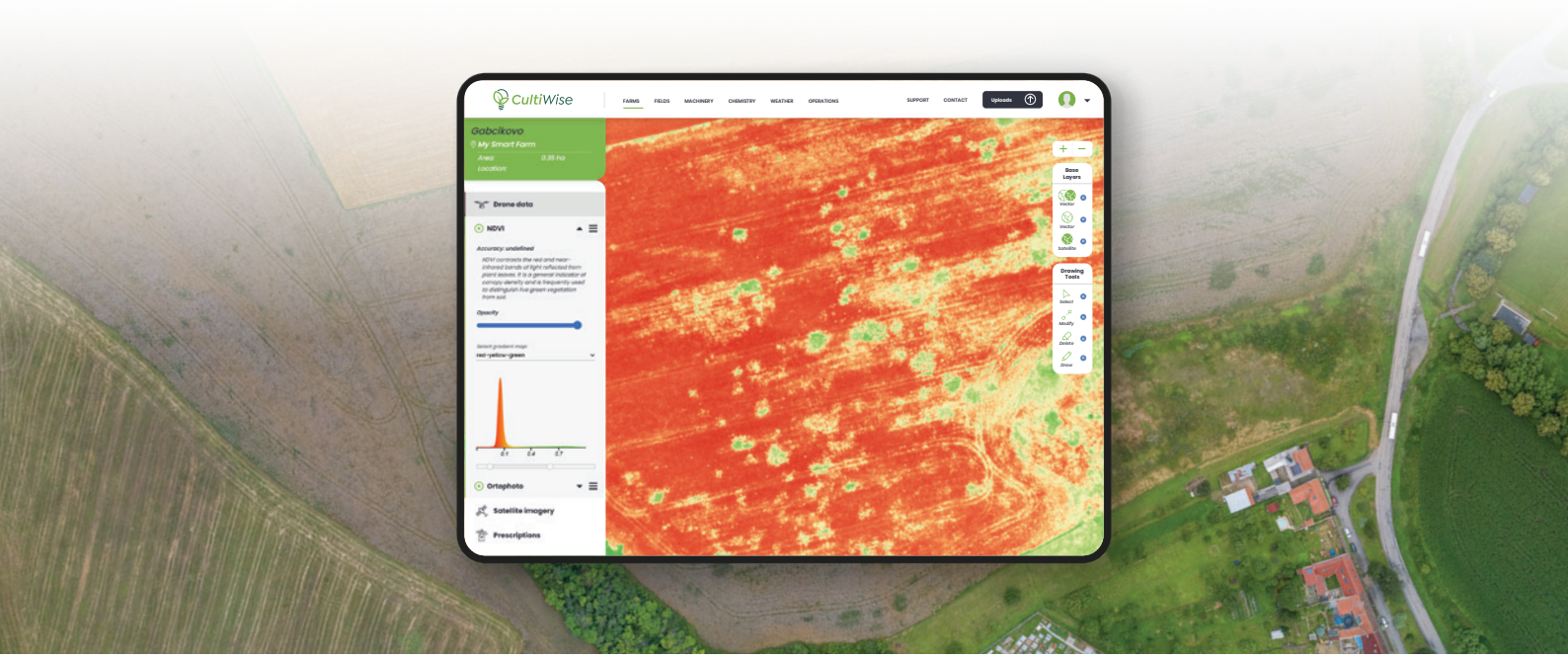
The “brain” of Cultiwise

The “brain” of Cultiwise uses AI models powered by machine learning and computer vision algorithms to detect weeds, diseases, and other crop issues. By grasping the possibilities of aerial imagery and spectroscopy Cultiwise prepares a prescription map, according to which the sprayer carries out the application using the optimum amount of pesticides or fertilizers. This is saving money for the farmers and helps our environment too!

Sugar beet **Cirsium arvense**

The Platform

Generate a map that will show you the zones you need to focus on. And use pesticides or fertilizers only where it's needed and exactly how much is needed. The application map is generated directly for your type of machinery.



Applications and saving potential

Variable rate **fertilizing**

Yield potential and production zone maps.

sunflower and many more...

Targeted **Non-selective herbicide** application

Identification of weeds for targeted application of glyphosate.

sugarbeet

Targeted **Selective herbicide** application

Identification of weeds for targeted application of selective herbicides.

vegetables

Crop coverage mapping

Coverage mapping to optimize management decisions.

cereals

soybean

Crop condition variability mapping

Monitoring of crop biomass and health conditions in order to optimize management decisions.

oilseed rape

Variable rate **seeding**

Reduce input costs in areas of low productivity and increase yields in areas of high productivity.

corn

Variable rate **desiccation**

Classification of crop maturity for targeted application of desiccants.

oilseed rape

cereals

potatoes

Plant population mapping

Plant counting to evaluate crop emergence and density.

corn

sugarbeet

sunflower

Variable rate growth regulator application

Classification of crop maturity for targeted application of growth regulators.

corn

oilseed rape

soybean

cereals

vegetables etc...

Demo farm

Potential savings

Cultiwise was implemented on several sites on a demo farm to verify the potential gains. With more efficient, variable application of pesticides we reached 28% - 71% savings, achieving same treatment efficacy than with conventional homogeneous spraying. This is a significant difference when taking into account the environmental and economic aspects.

Trial field

Applied products:
herbicides, fungicides, piant growth regulators

No. of fields:	No. of applications:	Area sprayed:
12	**16**	**514 hectares**

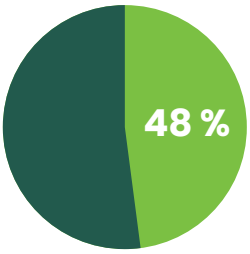
Total costs would be without Cultiwise

14.603 €

Total savings:

7 065 €

Total savings



Farm size

4 600 hectares

Potential savings per season (in case of 5 applications)

241 500 €

CultiWise

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Sledujte nás