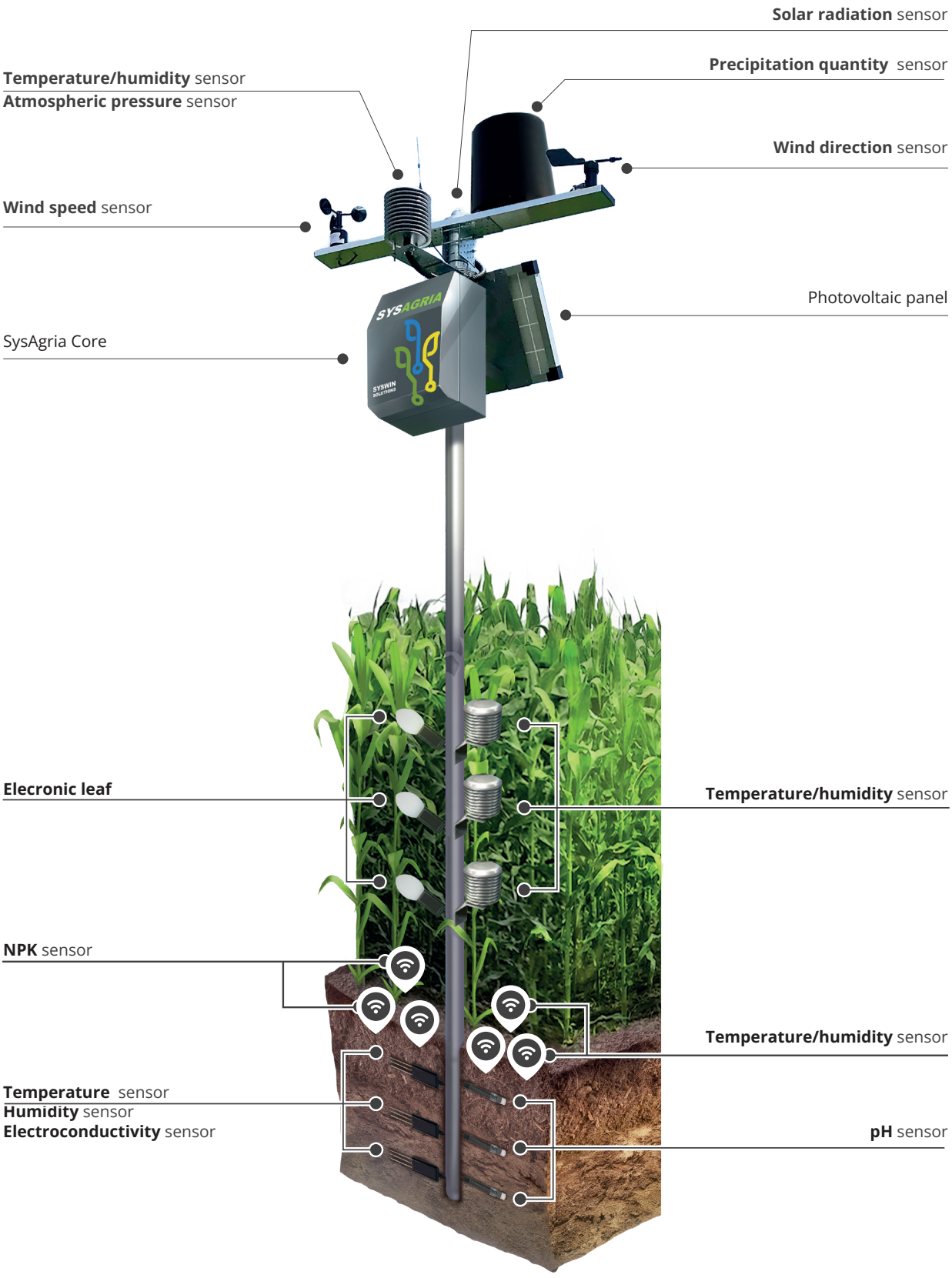
SYSAGRIA

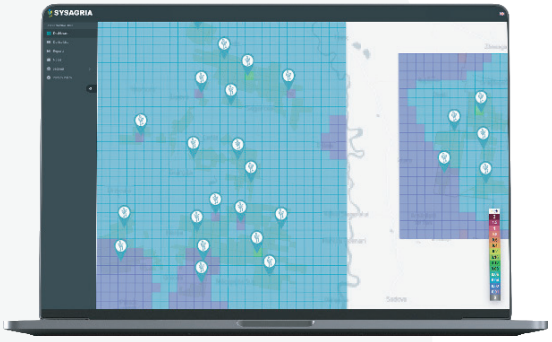


SYSWIN SOLUTIONS

IoT INTELLIGENCE ADAPTED TO PRECISION AGRICULTURE

The SysAgria system monitors and records vital parameters of soil, air, precipitation and light through the software application and a wide range of sensors for multiple crops.

OPTIMIZED AGRONOMIC EFFICIENCY



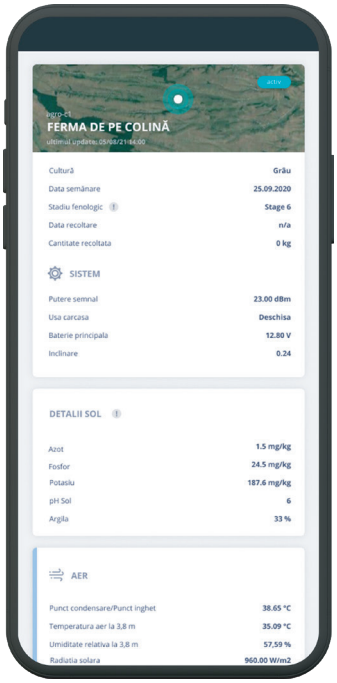
It measures the water supply, the level of electroconductivity and the pH of the soil at different depths, helping to establish the optimum rotation of the crops and the opportune time of sowing

It tracks and sends precipitations levels both in real time and forecasted time, helping to optimize the sowing and harvesting plan. It contributes to the health of the crop by alerting about fulfilling the conducive conditions for the occurrence of the diseases and pests specific to each crop

It contributes to the estimation of production by analyzing factors such as soil favorability in the cultivated region, the available macronutrients in the soil and the level of precipitations and recorded temperature during the crop phenophases

DIRECT FROM YOUR MOBILE PHONE

The SysAgria app can turn iOS or Android mobile devices into true control centers for managing extended crops and greenhouses.



- Real-time monitoring of all sensor data, device status and historical data from the moment of installation
- Configurable for any type of crop, including multicultural monitoring for one or more users
- E-mail and Telegram warning alerts on the occurrence of the disease risk, correlating parameters recorded with the phenological stage and the level of the crop's favorability
- Multidimensional reports and analyzes of the evolution of the parameters
- Isometric maps created by interpolating the recorded data of precipitations, humidity, temperature and other relevant parameters
- Operating of the automated installations, based on the data provided by the sensors and the settings established for each type of crop and phenological stage

MEASURED PARAMETERS

- Wind speed/direction
- Precipitations
- Solar radiation
- Snow layer
- Temperature
- Evapotranspiration
- Relative humidity
- Atmospheric pressure
- pH
- Soil temperature/humidity
- Electroconductivity
- NPK

THE FIRST LoRa MESH WEATHER NETWORK IN ROMANIA

Over 25.000 ha, a single integrated network

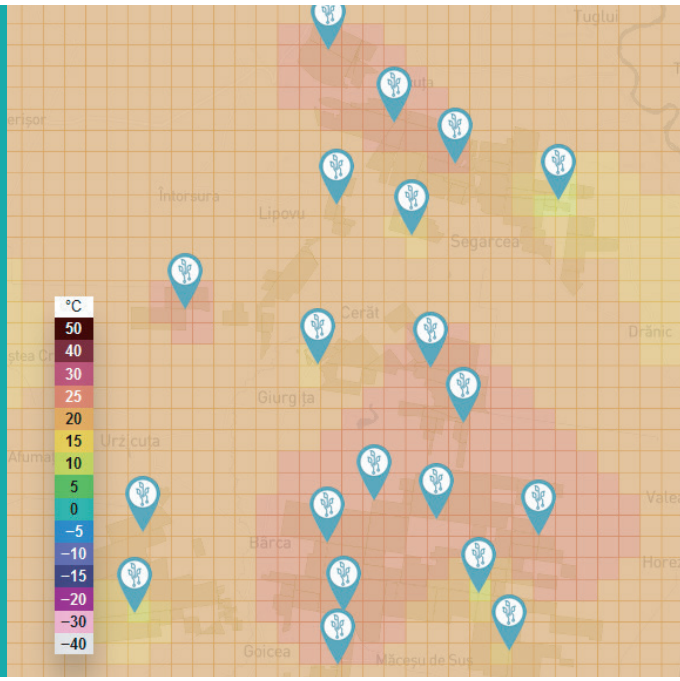
Interpolated maps for temperature and precipitations

Real time data and weather forecast of the microclimate

Warning of risk disease and **pests**

Production estimation for different crops

Antivandal alert and GPS track for at least **48 hours**



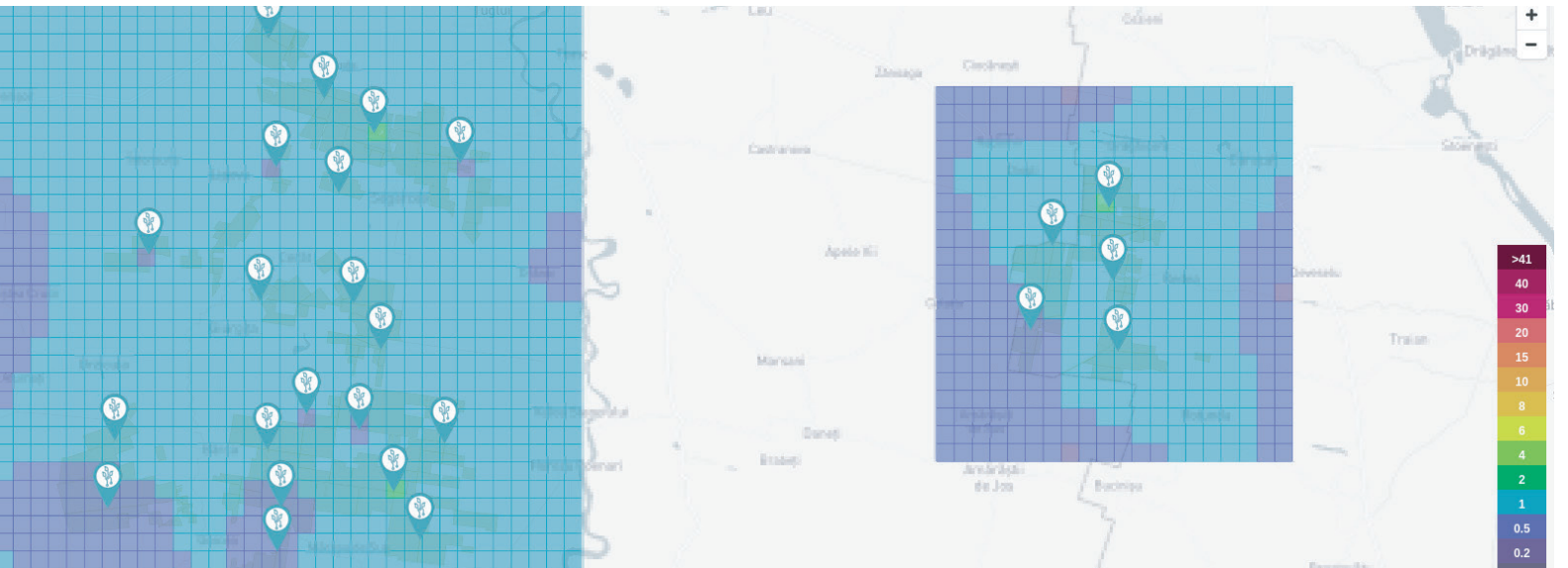
REAL TIME TEMPERATURES MAP BY INTERPOLATION OF DATA

THE BENEFITS OF AN EXTENSIVE NETWORK OF AIR AND SOIL MONITORED PARAMETERS

Monitoring and identification of weather conditions specific to the area microclimate and correlating their evolution with the occurrence of the disease risk in different phenological stages of the crop.

Based on the historical analysis of these identified models, using data mining and big data analytics, highly accurate predictive models generating warnings and recommendations for treatments and fertilization can be created.

REAL TIME PRECIPITATIONS MAP BY DATA INTERPOLATION



AGRICULTURAL OPTIMIZATION THROUGH TECHNOLOGY

Measured parameters by continuous sampling at different heights and depths: temperature, humidity, wind direction and speed, precipitations, solar radiation in visible and invisible spectrum, atmospheric pressure, evapotranspiration, leaf temperature and humidity, soil temperature and humidity, pH and electroconductivity

Energy independent solution with an energy supply of over 20 days in the absence of the solar panel

Industrial grade for anti-vandal and weather protection

GPS tracking for at least 48 hours after the first movement alert

VERSATILE PRODUCT THAT CAN INTEGRATE COMPLEMENTARY SYSTEMS

Automated greenhouses control solutions for irrigation, fertilization, ventilation, cooling/heating, humidification/ dehumidification, closing/opening of the greenhouse sides and harvesting systems

Irrigation systems for large crops, fruit trees, vine

Fertirrigating facilities

BESIDE EVERY ROMANIAN FARMER

Technical assistance and national support

Remotely software update

Field intervention

Customized reports and alerts

Integration with existing systems and applications

+20
sensors

+10
crops

+20 days
energy reserve

+25 km
distance between two stations

H2020 RESEARCH & **INNOVATION PROJECT**

SYSWIN SOLUTIONS is a Romanian R&D company, established in 2012 that offers IoT and M2M solutions for SmartCity and precision agriculture.

CERTIFICATIONS

ISO **9001:2008**
ISO **14001:2004**
ISO **27001:2013**

CE Designed and manufactured in Europe

RoHS compliant

Texas Instruments · maxim integrated · Honeywell · SHARP · ams · VISHAY · KEMET Corporation · LINEAR TECHNOLOGY · muRata INNOVATOR IN ELECTRONICS · QUECTEL Build a Smarter World · ANALOG DEVICES AHEAD OF WHAT'S POSSIBLE™

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