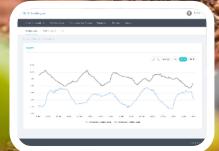


# SMART IRRIGATION SYSTEM











# THE **METIS** SYSTEM

# IRRIGATION BASED ON REAL-TIME DATA

# **TECHNOLOGY**

HARDWARE, SOFTWARE, OPTIONS

# **Irrigation Automation**

The METIS Smart Irrigation System is one of the most advanced Irrigation Automation Systems currently available in the market.

METIS collects a variety of sensor data, which is transferred using LoRaWAN technology. It is used by the METIS software for automatic control of the already existing irrigation hardware.



**Better crop quality** 



Less water consumption



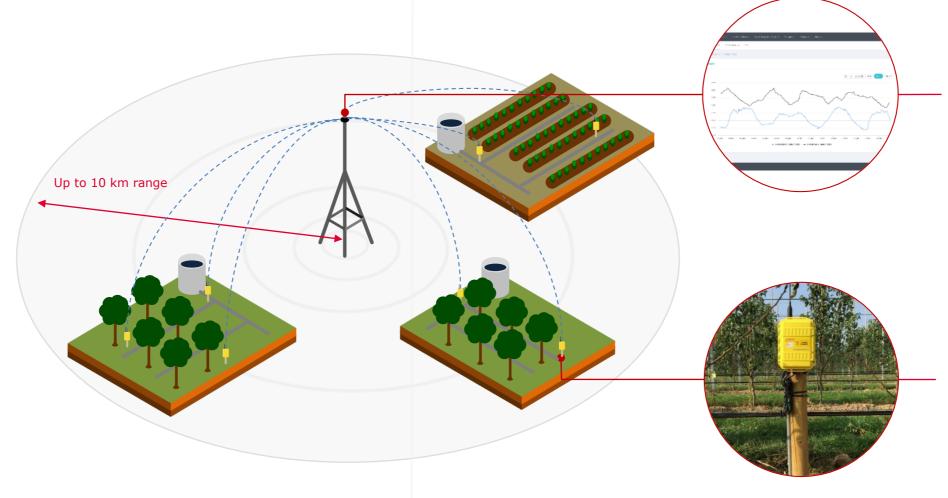
Less pesticide use



Less nutrient wash out



More yield



# **GATEWAY DATA COLLECTION**

The gateway collects the sensor data from the field. It is then used by cloud-software to create graphs and make irrigiation decisions.

Cloud software means the Operating System is accessible from every location in the world where there is internet.

#### **KEEP YOUR HARDWARE**

The METIS system can be integrated with the already existing irrigation hardware.

# **DATA TRANSMITTER**

These yellow boxes use the lowenergy / long range LoraWan technology to transmit sensor data to the central gateway. Multiple sensors can be connected to one box. The boxes are even equipped for control of irrigation hardware.

The battery energy use is very low.

A unit can run on a single battery
for more than a year



# **UP TO 10 KM RANGE**

One simple gateway using LoraWan technology combined with an antenna can cover an area up to 10 kilometers in which sensor data can be collected. This does not use the internet networks and therefore does not require license fee's or subscriptions.



# **GET ALL THE DATA**

A variety of sensors can collect:

- Temperature
- Humidity
- Sunlight
- Rain
- Soil humidity
- EC
- And more...



# **SOFTWARE INTEGRATION**

The METIS system is unique for its software integration. It combines data from:

- Weather stations,
- Sensors,
- Weather forecast, and
- Irrigation regime,

for controlling the irrigation.



#### **SENSORS**

We use (a.o.) WaterScout and Watermark Soil Moisture Sensors measuring Soil Moisture Content (VWC%), Soil Moisture Tension (kPa), soil EC and Soil Temperature. It has an optional Ai

Temperature. It has an optional Air TRH sensor for Frost Alerts early in the season.



# **LORAWAN**

"Longe Range Wide Area Network".

LoRaWAN is the network that can be used by IoT (Internet of Things) for remote and unconnected industries. LoRaWan enables verylong-range transmissions (more than 10 km in rural areas) with low power consumption.



# **SET THE IRRIGATION REGIME**

By using the systems Irrigation
Regime You can set upper and
lower water budget lines for
different growth phases in your
crops life cycle. The system can be
set to: Manual Mode, Time based,
Soil Moisture Based or Fully
Automatic.

# THE METIS SYSTEM IS DEVELOPED FOR







# **SALES AND DEVELOPMENT PARTNERS**



Sensor specialist and software developer. Vendor of the METIS system.

info@specmeters.eu +31 543 472334



Is a wordwide consulting company with knowledge and expertise for companies in agriculture.



Specialized in delivery and installing of irrigation products and services.



# **Dorset Identification B.V.**

Weverij 26
7122 MS Aalten
The Netherlands
Tel. +31 (0) 543 47 71 19
Fax. +31 (0) 543 47 53 55
E-mail id@dorset.nu
Website www.dorset.nu



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