

# More precision into every decision



\*Only available for Europe, Russia, Australia and New-Zealand



Part of the ROCKWOOL Group



 **Grodan® Plantop**

Plantop with NG2.0

## Discover GroSens - Taking your crop growth to new heights

Today's growers are increasingly looking for new ways to improve their growth strategy to realise optimal yield. Data measurement, on distance monitoring and precision growing are important factors in realising that. With the introduction of the Internet of Things, advanced sensor technology and data-driven decision-making, realising optimal yield has already taken a huge step forward. From now on, you can take your data-driven growing to the next level: with the redesigned GroSens suite, complete with high-quality sensors for rootzone management. Super accurate, precise, and wireless. And even better: you can rely on the same great quality and precision.

**Tailor-made measurements optimised per Grodan stone wool slab line**  
Based on years of lab research and trial tests Grodan developed tailor-made, specific data models that are optimised for each unique Grodan growing medium product. The result: increased accuracy above the industry standard, more control, and everything you need to know for your rootzone and irrigation management approach. Wherever you are, 24 hours a day and 7 days a week. Allowing you to put even more precision into every decision.

**Discover the new GroSens suite.**

# Meet the redesigned GroSens Suite

Data-driven growing is no longer a trend, but a must. The redesigned GroSens suite is the ultimate package to take your crop growth and rootzone management to the next level with the use of data. First of all, it provides more accuracy, a wireless connection and a very high degree of precision when combined with specific Grodan substrate data models. In addition, the redesigned suite also offers:

**An increased user experience and appealing product design:** the root sensors have a distinctive blue colour, so you can easily spot them in the greenhouse.

**Future-proof, state-of-the-art technology:** the system is based on LoRa communication technology, which allows a wider range of communication up to 150 metre in average greenhouse environment.

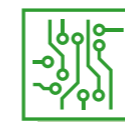


**Additional climate sensors** for microclimate management and local data gathering in addition to your climate system – resulting in more insights and control.

**A redesigned new mobile native app** with new functions such as a handheld-feature.



## Benefits of the redesigned GroSens Suite



### Extremely reliable with optimised data models for Grodan substrate products

GroSens is extremely accurate and provides, when combined with Grodan substrates, highly reliable and precise rootzone temperatures, WC and EC measurements. This results in better growing insights on a specific Grodan slab or block.



### Improved design and performance

The new sensors have an improved and waterproof product design. Thanks to their distinctive blue colour, spotting them is easier. The sensor is more compact and designed to easily measure the Grodan product assortment range.



### Seamless connection with e-Gro

The new GroSens sensor can seamlessly connect to e-Gro. This immediately provides valuable insights that support you to optimise your growth strategy.



### Plug and play installation

Installation that is both easy as well as time saving thanks to our new and improved e-Gro app with Bluetooth (BLE) connection.



## Get the most out of your data

When connecting the new GroSens suite to e-Gro or your climate computer, you immediately benefit from valuable insights that support you to optimise your growth strategy. Depending on your needs there are different options available to get the most out of your data with your GroSens sensor suite:

### e-Gro Companion

#### When choose e-Gro Companion?

You want access to basic information from the sensors via a mobile application and read out the EC, WC and Rootzone Temperatures. This app is included in the GroSens suite.

### e-Gro Essential

#### When choose e-Gro Essential?

You want access to relevant greenhouse information which is essential to improve your cultivation strategy. You want to get more out of data and have insights into yield forecasts, irrigation advice and crop monitoring.

### Connection to your climate computer

#### When choose this option?

You want to view your GroSens data in your climate computer.



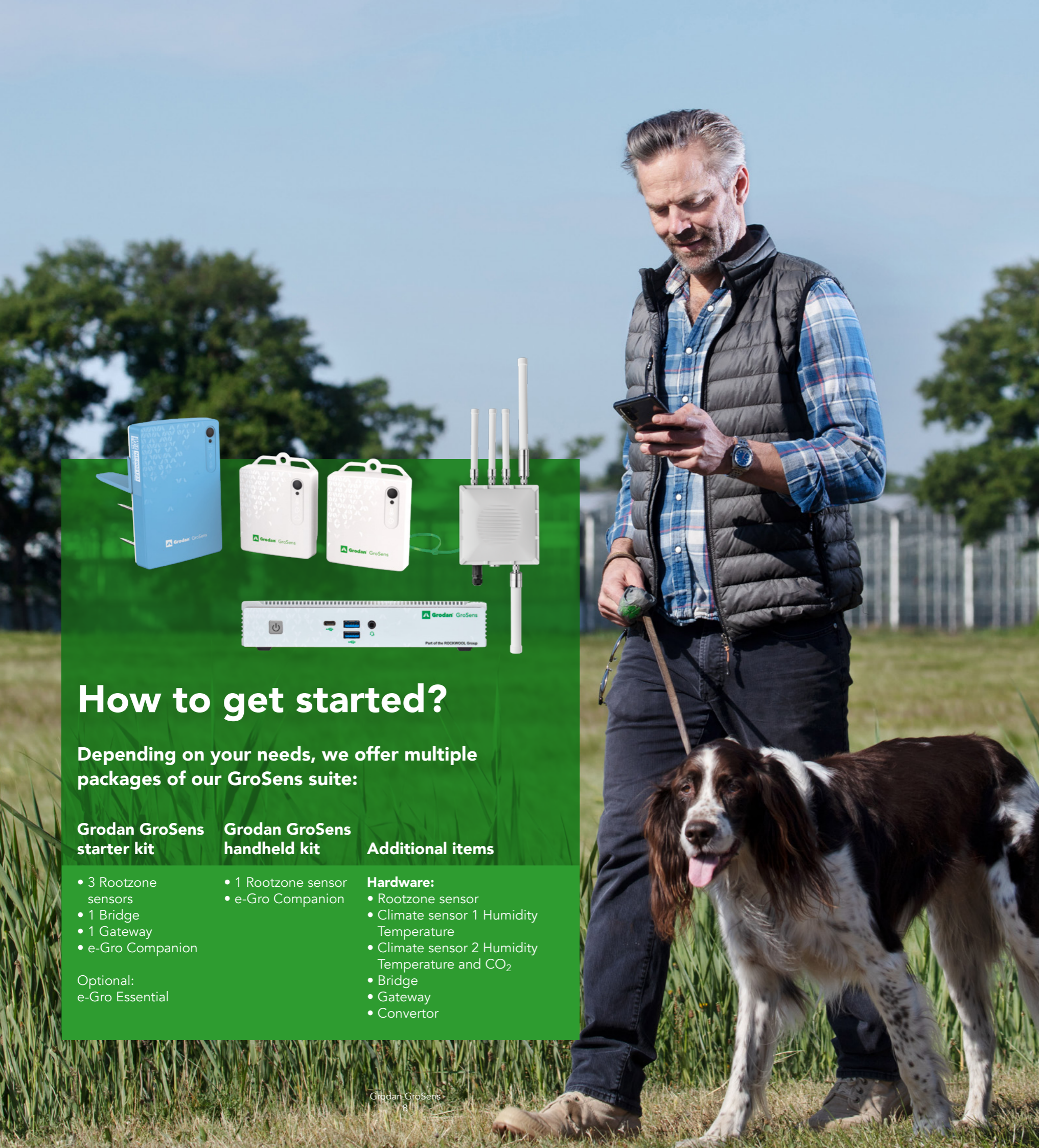
## The power of GroSens specific data models

It is challenging to translate raw data from sensor technology into comprehensible measurements. So, creating a data model that makes this translation precise is not easy. Since Grodan offers a unique range in substrates for various crops, we decided to improve data models optimised for specific Grodan products.

Therefore, Grodan has put a lot of years in lab research and trial tests into the development of the Grodan slab/block optimised models. We worked with experts and specialists to develop

and fine-tune these tailor-made and specific data models, which are optimised for Grodan growing medium products.

The result is increased accuracy and more reliable information tied to specific Grodan growing medium products, accessible via your e-Gro account. Giving you more control and everything you need to know for your rootzone and irrigation management approach. Wherever you are, 24 hours a day and 7 days a week.



## How to get started?

Depending on your needs, we offer multiple packages of our GroSens suite:

### Grodan GroSens starter kit

- 3 Rootzone sensors
- 1 Bridge
- 1 Gateway
- e-Gro Companion

Optional:  
e-Gro Essential

### Grodan GroSens handheld kit

- 1 Rootzone sensor
- e-Gro Companion

### Additional items

#### Hardware:

- Rootzone sensor
- Climate sensor 1 Humidity Temperature
- Climate sensor 2 Humidity Temperature and CO<sub>2</sub>
- Bridge
- Gateway
- Convertor

## What else does Grodan offer you?

In addition to the product benefits, we offer you extensive support and service.



### Optimal Support

For total peace of mind, our advisors are ready to answer your questions and solve technical issues by email and telephone.



### Remote personal growing advice

Our advisors help you to get the maximum benefit from your hardware and software. How? Through personal advice based on our knowledge and expertise in substrate cultivation. As your partner, we combine our knowledge and experience with yours to drive superior results.



### Continuous product improvements

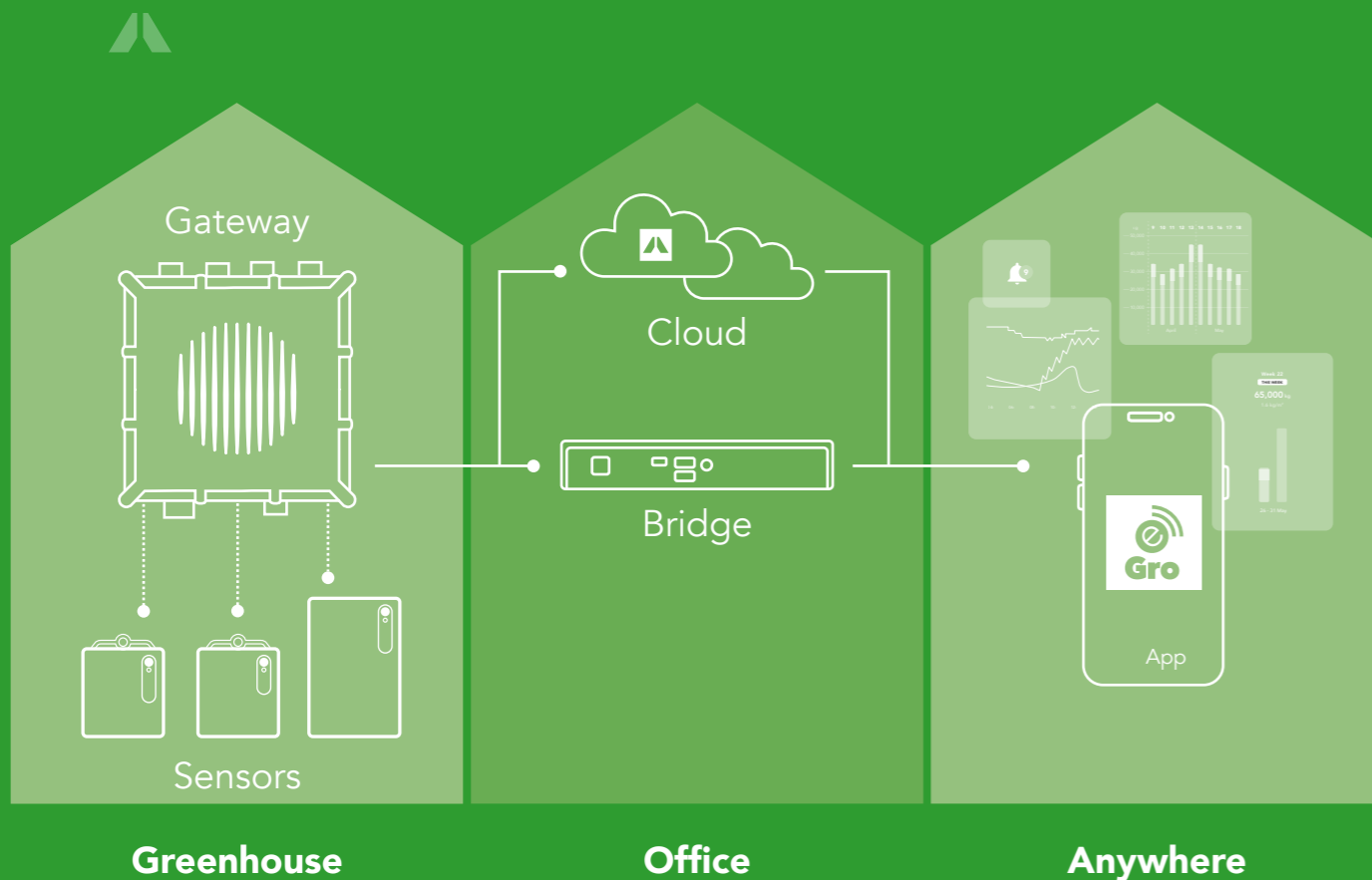
Based on your feedback, a dedicated software and hardware product team works on continuous development and improvements of our products to take advantage of the latest technologies and opportunities, and provide greater insights.



### Your data is safe

All data in the software is extremely secure and is stored and processed in accordance with all North American, European, and local laws and regulations.

# GroSens system overview



## Product specifications rootzone sensor

- Most reliable, representative WC, EC and rootzone temperature measurements due to measuring at 2 heights
- Slab-optimised data models
- WC measurements in the range between 0-100%
- EC measurements in the range between 0-10 mS/cm
- Temperature measurements in the range between 0 and 50 degrees Celsius

## System requirements

- Available Internet
- Sensors must be placed within a 150-metre radius of the gateway.



## A trusted experience

Based on customer feedback, GroSens became the most trusted and best-performing sensor on the market. For years, the Grodan GroSens system has proven to be the most valued sensor in horticulture to support and optimise rootzone. Now we have taken that technology and managed to improve it, making it even more innovative and future proof.

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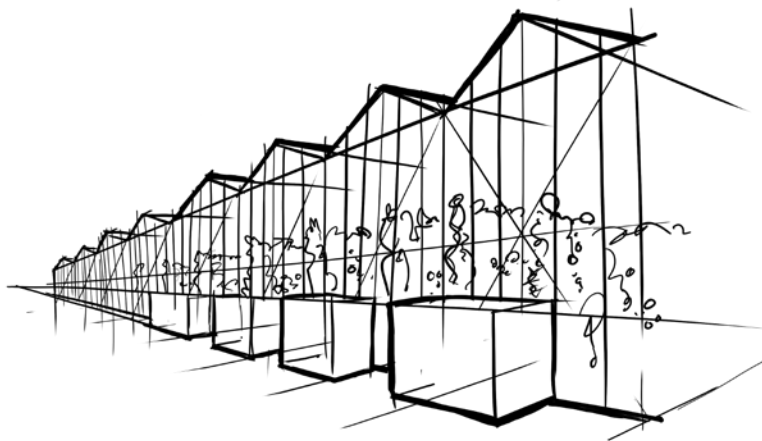
### Passionate about Precision Growing - For more than 50 years

At Grodan, we're always looking for solutions that allow growers to grow better. Our aim is always to provide you with important growth parameters and data, so you can have maximum control and create the optimal growing conditions for root development in growing media. And we've been an expert on that for more than 50 years.

Now, with the new GroSens suite, we've reached a new milestone; providing a value-added solution that enables growers worldwide to improve their data-driven growing and take their growth strategy to new heights.

### Start today

Are you ready for the future? Make sure your business is ready for tomorrow today. Put more precision into every decision with the new and redesigned Grodan GroSens suite. Contact your Grodan Account Manager for more information.



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The substrates from Grodan are the only stone wool growing media awarded an EU Ecolabel.



EU Ecolabel: NL/048/001

