

PLANT TECHNOLOGY

# Plant tissue culture solutions



# Cutting-edge tissue culture labs



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## Turn-key plant laboratory

Viscon will support you in creating the perfect turnkey laboratory. Viscon Plant Technology offers a wide range of products to help your plants thrive!

The products on offer range from growing chambers, standard issue laboratory equipment, innovative laboratory automation and the required consumables for a smooth running operation.

Viscon also sets itself apart with the ViTray which provides a robust and efficient rooting protocol. With the ViTray, you are able to supply healthy young plants, rooted and hardened. The ViTray is additionally designed for automation, facilitating easy and efficient transplanting of the plants to the greenhouse environment.

### For TC labs Viscon supplies:

#### Complete laboratory setup

- ✓ Climate controlled growing chambers
- ✓ Multilayer LED trolleys

#### Automation

- ✓ Automated media preparation and filling
- ✓ ViTray sealing
- ✓ Transplanting

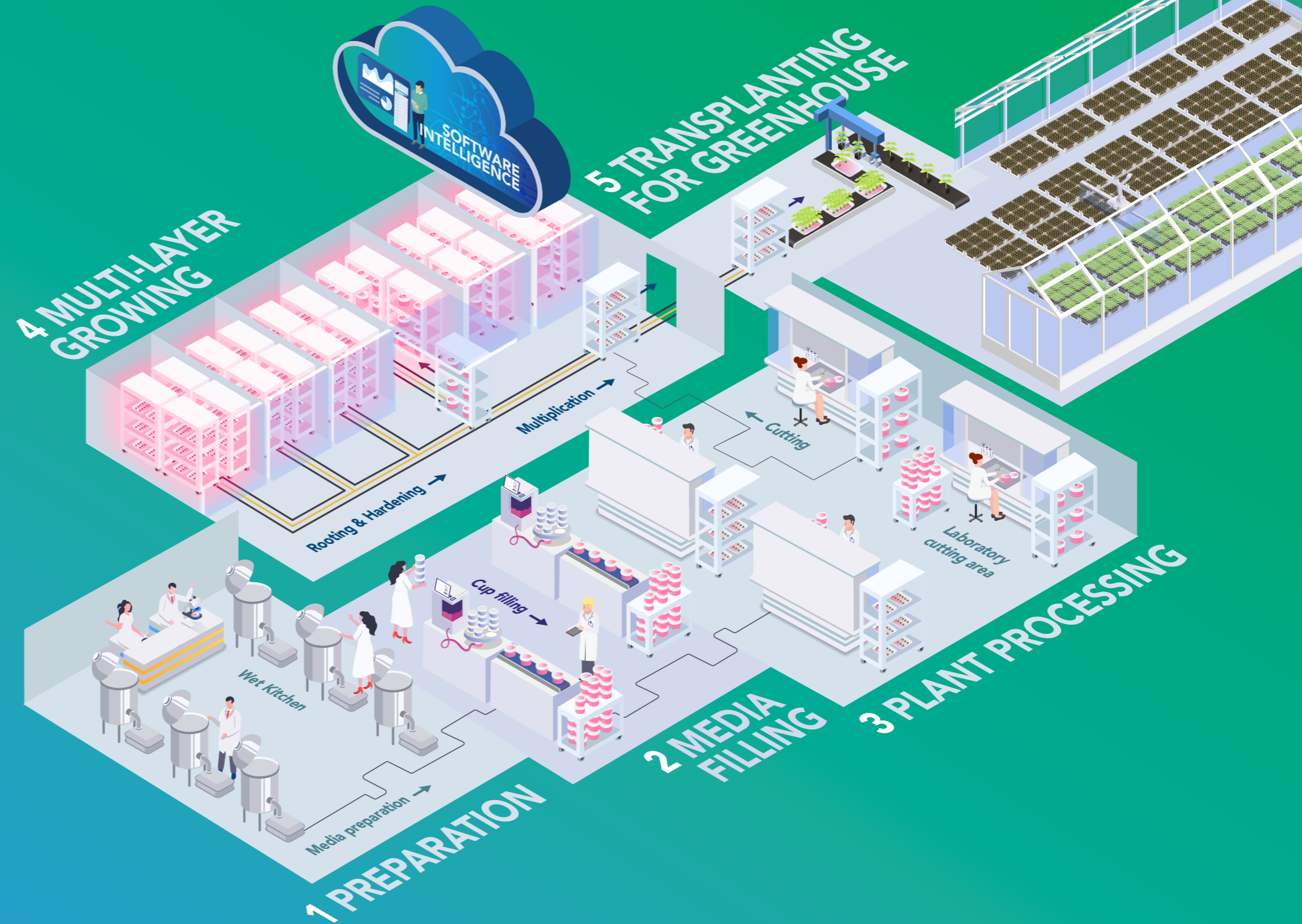
#### General laboratory consumables

#### Tracking & tracing software

# Integrated platform to help plants thrive

Whether you're a pro or new to the world of plant tissue culture, we offer the complete platform you will require to efficiently and robustly produce healthy young plants.

We design a complete layout for your plant factory. We have extensive experience creating the most efficient tissue culture laboratories. Including areas such as the preparation area, media filling and seeding area, plant material process area, and multi-layer rooting and hardening area.



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# Preparation & media filling

**In any kind of laboratory everything starts with a clean operation. Viscon supplies everything you need to clean and sterilize all materials in your lab.**

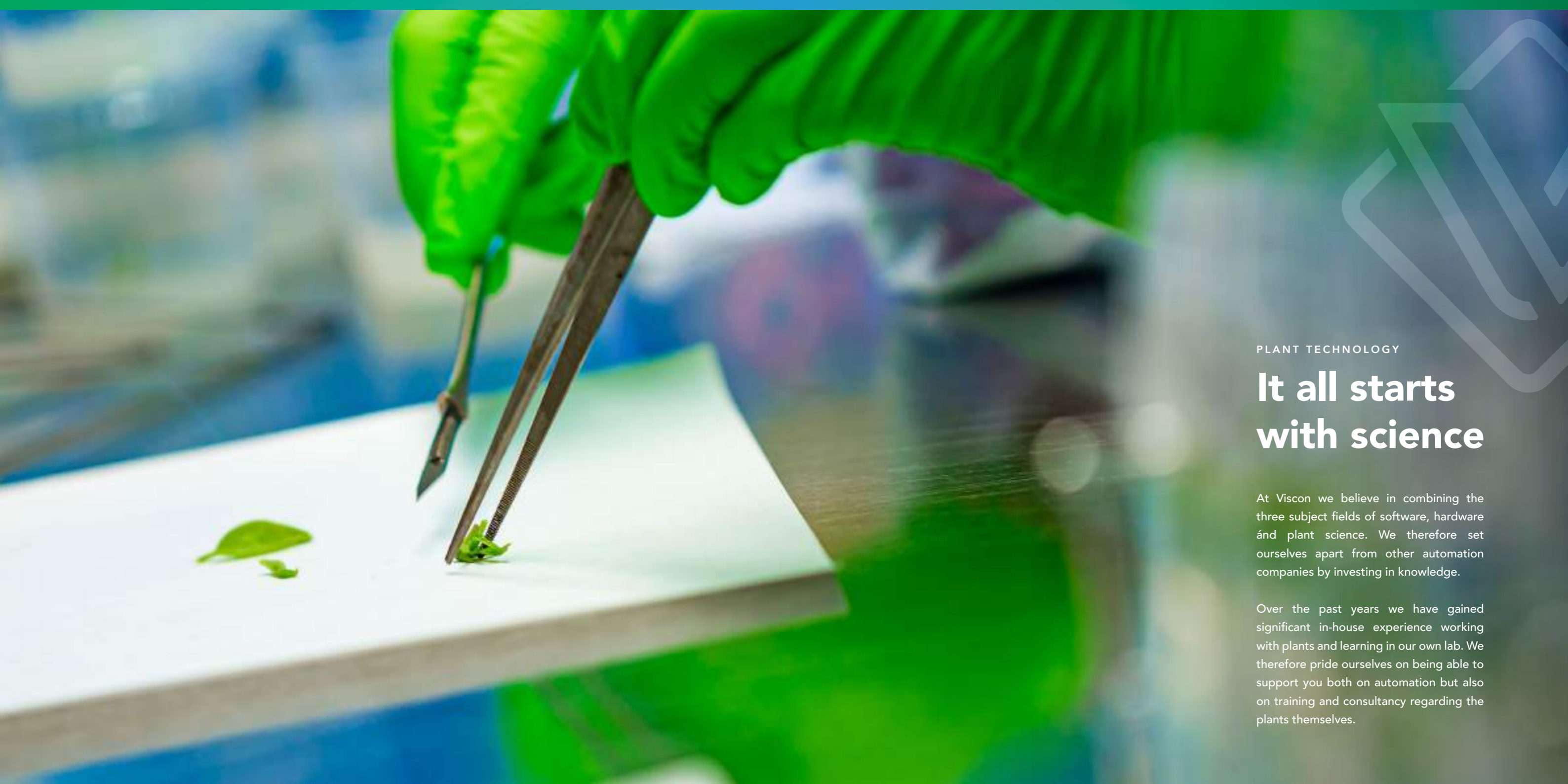
Both cups and trays can be filled with agar in the media preparation area. Viscon supplies unique media preparators with an unprecedented capacity. These media preparators connect to the filling lines to automate the filling process.



## Automated media dispensing

The automated media dispensing system allows you to prepare media in large quantities and dispense them automatically. This saves time, reduces contamination risks, and makes glass bottles and autoclaves redundant. Each cup is guaranteed to have consistent quality. Our media preparation machines can dispense up to 250 liters of media per day.





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## It all starts with science

At Viscon we believe in combining the three subject fields of software, hardware and plant science. We therefore set ourselves apart from other automation companies by investing in knowledge.

Over the past years we have gained significant in-house experience working with plants and learning in our own lab. We therefore pride ourselves on being able to support you both on automation but also on training and consultancy regarding the plants themselves.

Plant tissue culture is **embedded** in our DNA



From the first initiation steps, where your new plants are introduced into a lab environment, to establishing strong and healthy root systems, Viscon is able to provide you with all the necessities.

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## Plant processing

**In the laboratory Viscon provides everything required for a smooth setup to process your plants. Laminar flow cabinets, equipment for the staff, trolleys for transport and all disposables. For a Viscon process a sealing machine is available as well**

The ViVi system also enables our clients to significantly cut down on the normal cultivation time by combining rooting and hardening in one step. When additionally integrating the desired automation, Viscon is able to simplify your plant processing considerably, helping with each step to ensure your plants THRIVE.

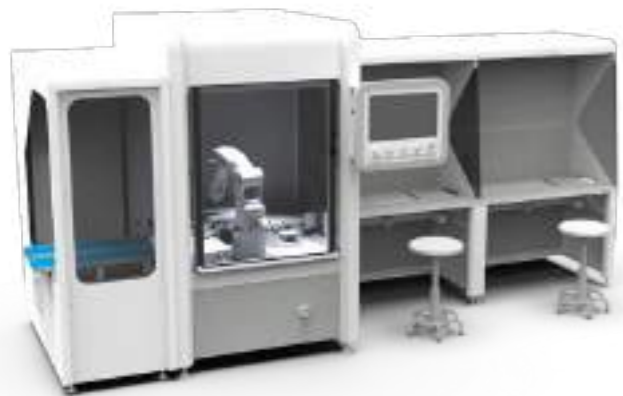


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# Tissue culture planter

**By automating the transplanting process, you are able to optimise production capacity and boosts operational efficiency within the lab. All of this while also ensuring uniform growth, sterile plant handling, and enhanced traceability. Combined, these factors lead to exceptional plant quality!**

With its cutting-edge technology, this innovative Tissue Culture Planter elevates your TC production to new levels of excellence.



## Partners in Progress

Viscon Plant Technology and ISO have collaborated to revolutionize plant tissue culture production! The industry-leading partners have come together, combining their expertise and experience in the AgTech industry to develop the new Tissue Culture Planter.

## Guaranteeing uniform growth

By automating the transplanting process, individual plants are carefully planted at a predetermined position and depth into the agar, resulting in improved uniformity. Advanced gripper technology focused on precision ensures minimal physical damage to plants, while automation allows workers to fully concentrate on the cutting. Combined these factors ultimately enhance plant quality.





**TISSUE  
CULTURE  
AUTOMATION  
UNLOCKED.**

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# Multi-layer growing

Increase plant uniformity and quality, and accelerate production by implementing our state-of-the-art multilayer propagation solutions. By reducing the risks associated with conventional propagation methods, we provide a reliable, proven, and scalable way to help you select and develop the best starting material and growing protocol.

## ViCabin climate chamber

The ViCabin is a climate controlled room with a uniquely designed laminar flow technology. This patented technology forces air through the large contact surface radiators located in the cabin. This creates a high air velocity that can be fully controlled and allows section-controlled cooling. The climate conditions are adjustable to the minutest level, to allow for the ideal cultivation environment

The ViCabins guarantee uniform growth due to the highly controlled environment. It essentially allows for the optimal cultivation conditions year-round. As an added benefit, the ViCabins are also highly energy-efficient.



## ViTrolley LED trolley

As a key part of your plant growth facility, our ViTrolleys with diffused LED panels are a plug-and-play solution and are fully compatible with our climate-controlled growing chambers. The trolleys are equipped with a unique light plex for optimal light distribution, cooling ribs for optimal cooling of the LEDs, and an ultra-thin layer thickness of 9mm to create the largest growth area per square meter.



**Controlled  
environment  
propagation &  
cultivation**



Optimum growing conditions

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# Cultivation consumables

Viscon Plant Technology (VPT) produces excellent consumables which can be used for somatic embryos, during multiplication or even your rooting steps. We can help you handle your plants at any stage or age. All products are produced from Polypropylene, which is highly suitable for the propagation of young plants in a sterile environment. All our products are therefore provided Gamma irradiated.

In the fully controlled growing chamber the ViTray helps you root and harden your plants. The ViTrays hold substrate in which the plants can grow roots. The plants can harden in the ViTray in the cell as well, via the Viscon micro perforation. Viscon supplies both the automation for the filling of the trays and the complete growing chamber.

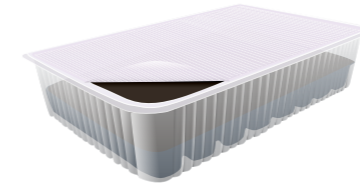
## ViTray growing method

We offer a revolutionary method to root and harden all kind of plants. Reliable, local and in a sustainable way by reducing the risks associated with growing young plants in a conventional greenhouse. With our growing system, the future is here. A fully controlled growing system in which all focus can go out to selecting the best starting material and growing protocol.

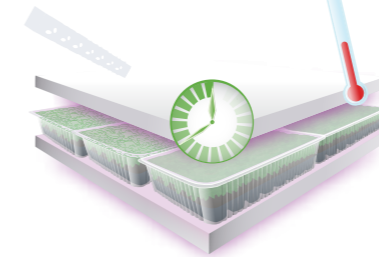
Fill it



Seal it



Optimum growing conditions



Strong starting material





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## Sustainable rooting & hardening

Our multiplication cups and rooting trays add value to your tissue culture production and breeding process. The separated packaging precludes spreading diseases and all our products can be provided gamma irradiated.

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# Young plant automation

**Viscon Plant Technology provides turnkey solutions for automating any young plant production process. We design and manufacture our machines from stand-alone units to complete production lines to automate all labor-intensive processes.**

When the plants are rooted and hardened they can be automatically transplanted. Viscon Plant Technology supplies transplanters for a fully automated process. We also offer fully automated production lines with filling, seeding, (de)stacking, transplanting, watering and vision grading machines. Our logistic handling systems, potted plant transportation, soil handling, irrigation systems and track & trace delivery systems create the optimal flow in your nursery.



# Software solutions

## AI Vision software

Introducing our AI Vision System, a proprietary solution developed in-house for precise quality control, defect detection, product selection, and grading. This advanced technology boosts product quality by thoroughly analyzing each detail, eliminating the need for manual inspections and minimizing human errors.

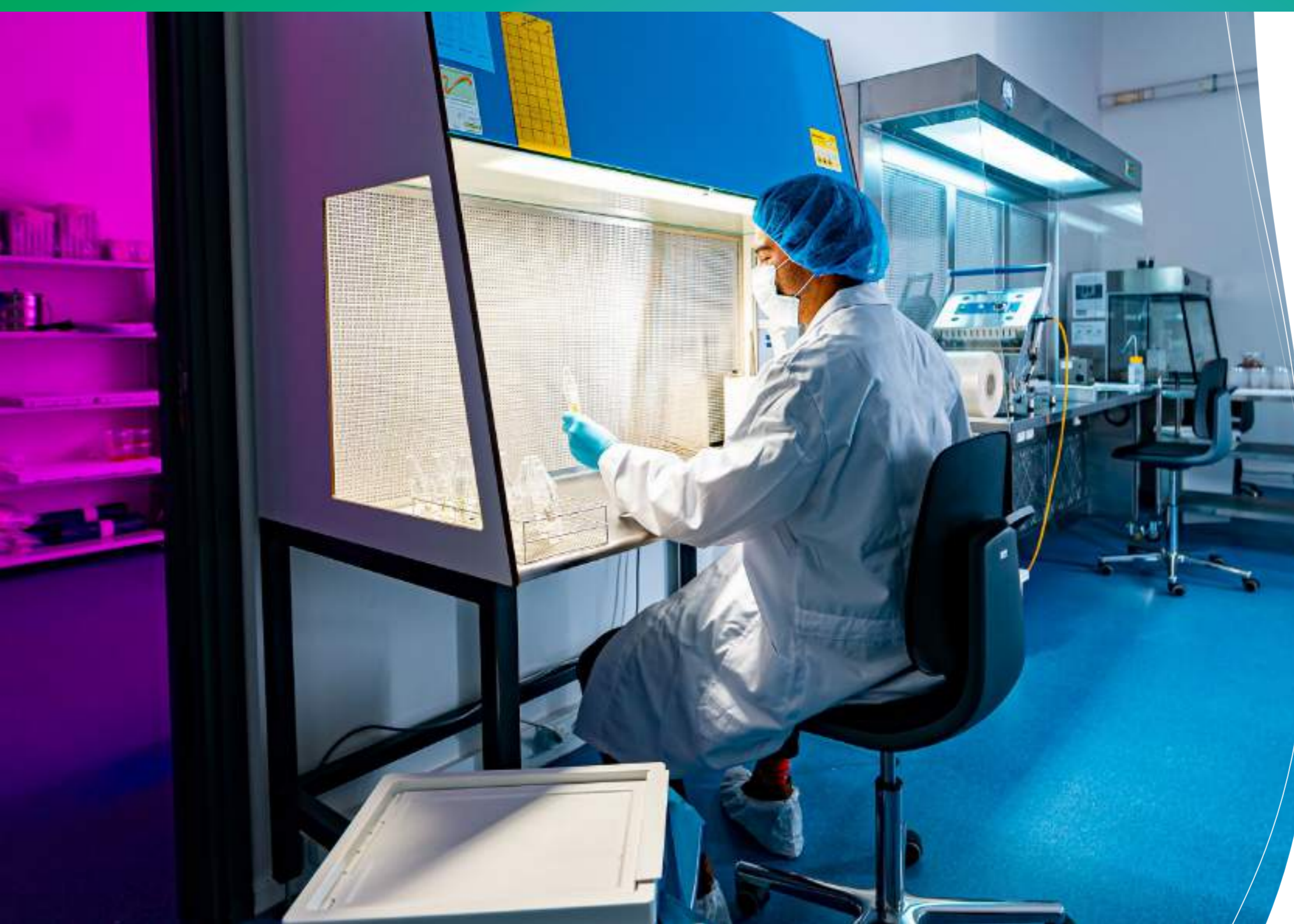
**We offer tracking & tracing software to supply all your products with the correct information down the supply chain. Plant tissue culture software can be used as a planning and calculation tool for data & stock management and barcode labeling**

## Continuous traceability

Our traceability software provides real-time data and a comprehensive view of a product's journey, ensuring transparency, issue resolution, and continuous improvement efforts. In essence, it serves as the cornerstone of accountability, quality assurance, and production efficiency. This valuable data is versatile, offering capabilities for tracking and tracing, issue resolution, recall management, and performance optimization. Additionally, it is readily accessible to empower your data analytics team.

Converting data  
into value





PLANT SCIENCE

## Plant science support

We pride ourselves on being able to take our service to the next level with solid plant science. Our in-house plant science team is able to fully support you on your turnkey adventure.

With our in-house plant expertise we can work together to produce healthy young plants in the most sufficient fashion. Once your lab is up and running, we provide the necessary training and consultancy to ensure your lab flourishes.



# Excellence in sustainable plant production



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