Program March 12th Wroclaw Poland

10.00 hrs	**Welcome guests & coffee**
10.15 hrs	**Introduction** Plant Empowerment is an integrated approach to sustainably growing crops in greenhouses by supporting the three balances. Its starting point is to stimulate and support the natural growing power of the plants by creating optimal growth conditions, both above soil and in the root zone. In nature, plants are resilient against pests and diseases. Plant Empowerment uses these natural characteristics to optimize plant growth. That's why Plant Empowerment contributes to sustainable horticulture. **By:** Tomasz Badzian | Saint-Gobain Cultilene
10.30 hrs	**Energy balance** Looking at the energy balance of the plant, sensors have proven a lot of new insights. A lot has been learned in the last years from this data. Topics that will be discussed include aspects regarding creating a homogenous climate and quality of light and the crop response to different wavelengths of incoming and outgoing radiation. With the given control and screening tips you can for sure improve the growing micro-climate of your plants. **By:** Rene Beerkens | Hoogendoorn Growth Management & Ton Habraken | Ludvig Svensson
12.00 hrs	**Coffee break**
12.15 hrs	**Water balance** During this part you will learn more about the basic principles of the water balance. The water balance is the balance between the input to and output of water from the plants. We focus on parameters is relation to substrates. Besides that you will learn the difference between plant stress and plant health. **By:** Júnczyk Wojtek | Saint-Gobain Cultilene Poland & Mark van der Werf | Koppert Biolocial Systems Growth Management
13.45 hrs	**Lunch Break**
14.45 hrs	**Assimilate balance** The assimilate balance of the plant will be presented and the following questions are answered;

	-What is the Ratio Temperature Radiation (RTR) and why do you need to closely follow it? -How can I maximize my assimilate production and follow it through data? -How can I distribute the assimilates optimally in order to maintain a balanced crop in parallel with maximizing my production? **By:** Hans de Vries | Hortilux Schréder & Evripidis Papadopolous | LetsGrow.com
16.15 hrs	**Forum discussion** **By:** All consultants
17.00 hrs	**Drinks & Networking**
18.00 hrs	**Closing**

Biography speakers

Hoogendoorn Growth Management
René Beerkens, Greenhouse climate consultant & trainer
www.hoogendoorn.nl

As the son of a grower, it is no surprise that René Beerkens has a passion for horticulture. René joined Hoogendoorn Growth Management in 2000 to combine his interest in information technology and horticulture as a consultant and trainer with a focus on data-driven cultivation. His daily task is to help growers around the world to optimize their greenhouse climate, irrigation and energy management. Digitizing the experience of growers 'green fingers' in strategically chosen settings in the Hoogendoorn climate computer does this.

Saint-Gobain Cultilene
Remy Maat, Manager Application
www.cultilene.nl

Remy's "horticultural career" started at a large seed company. After his studies at the Agricultural College in Delft, he started working as a representative for greenhouse crops. After a few years, he shifted the focus and opted for an advisory and research role instead of a sales position. From that moment on, the crop itself became more central to Remy. Initially the emphasis was on research into new varieties, but in recent years he has focused - from his position at Cultilene - on substrate and advice in this area. "Help growers get the most out of their substrate; that is the challenge!" According to Remy, combining Cultilene's knowledge with the basic principles of Plant Empowerment also helps to make significant progress worldwide: "In this way, the crop can be better controlled and efficiency gains are achieved when it comes to deploying water and fertilizers.

Koppert Biological Systems
Mark van der Werf, Consultant Natugro
www.koppert.nl

Born and raised on a horticultural farm and therefore infected with "green fingers" from an early age. After his studies in Den Bosch (Higher Agricultural School) Mark has been a grower of cucumber and (snack) tomatoes for a long time. During this period, he gained more and more focus on new cultivation developments: Next Generation Growing. I started to do more plant analysis to ensure fertilization and the dosing of micro-organisms and bio-stimulants for a stronger and healthier crop. At the start of 2016, the switch was made as a consultant to help growers worldwide making their crop more sustainable by focussing on the plant balances. This new view of plants will ultimately mean that we can continue to produce sustainable food in an economically responsible manner.

Ludvig Svensson B.V.
Ton Habraken, Greenhouse climate advisor
www.svensson.nl

Born in a horticultural family in Limburg, Ton has been active in horticulture all his life. He works for Svensson as a greenhouse climate consultant and gives customized advice to growers, cultivation / technical advisors, screen installers and greenhouse builders to achieve the most favourable and sustainable growth conditions in greenhouses around the world!

Hortilux Schréder B.V.
Hans de Vries, Consultant Grow Light Performance
www.hortilux.nl

Born and raised in Rijnsburg, world famous for flower bulbs and Royal FloraHolland, Hans was surrounded by agriculture and horticulture from an early age. No wonder he ended up at Hortilux in 2016. After starting as an account manager, he soon specialized in indoor farming and LED technology. After two years it was clear that Hans's expertise was extremely suitable for the role of Consultant Grow Light Performance. He advises growers on the optimal use of their grow light installation combined with Hortilux 'digital data platform HortiSense.

LetsGrow.com
Evripidis Papadopoulos, Data Analyst
Www.letsgrow.nl

By conducting a BSc and an MSc in Agricultural Sciences at the University of Thessaly in Greece, Evripidis Papadopoulos became interested in the Greenhouse Horticulture sector. To widen his knowledge and horizons he decided to move to the Netherlands. He currently holds an MSc in Plant Sciences at Wageningen University with a specialization in Greenhouse Horticulture. After his graduation, he started working at LetsGrow.com as a Researcher and Data Analyst, for combining his knowledge on greenhouse technology and plant physiology along with data. He aims to improve grower's strategies by maximizing production in parallel with Resource Use Efficiency following the "data-driven growing" principles.