

The plant reproduction material sector is knowledge intensive. A great deal of attention is devoted to innovation and scientific research. The sector is the first link in the agricultural chain. All the varying demands on the product by growers, traders and consumers must be taken into account right from the very start. In order to continually comply with the increasingly higher quality demands expected by society, research focussed on innovation is essential.

Members of Plantum can approach us with questions or a wish list for certain types of research. Knowledge institutes can also contact Plantum with sector specific proposals for research projects. Plantum itemises the requests it receives from its members and, in consultation with knowledge institutes and the government, tries to facilitate the necessary knowledge infrastructure. In this respect, consideration is given to today's needs, but to a greater extent to the long term requirements.

Plantum sends representatives to the relevant consultative bodies which defend the interests of the sector. By participating in consultative bodies and representing the plant reproduction material sector at strategic points, Plantum tries to uphold a high level of knowledge infrastructure. This stimulates the innovative capacity of the members. Aspects here include financial support, but also the relaxation of legislation and access to existing expertise and knowledge.

## **The most important research topics**

Research is conducted across the spectrum, ranging from purely scientific to practically oriented. The many national and international research institutes are excellent partners for the companies. The following disciplines receive particular attention; phenotyping, bioinformatics, applied genetics, physiology and phytopathology.

Technical developments improve quickly, and the time and expense involved in obtaining data about the DNA of plants is becoming a less restrictive factor. The recent emphasis is focused on the knowledge required to translate this data into observable and quantifiable characteristics. The IT infrastructure for conversion is part of bioinformatics. Linking this data to the characteristics is called phenotyping. In addition, constant advances in knowledge are also required for genetics, as this is the foundation of breeding. The better the recombination of DNA can be followed and controlled, the faster and more effectively breeding can take place. Thirdly, knowledge development in the domain of physiology is vitally important in order to limit product losses. Phytopathology is the scientific study of plant diseases and pests.

The exceptional knowledge infrastructure present in the Netherlands enables a rapid response to new, global issues. The products produced by our sector are at the foundation of solutions for global warming, food security and biobased economy. The products developed in the Netherlands are valued all over the world for their high quality, and especially for their innovative capacity. These qualities have helped to make the Dutch plant reproduction material sector the world leader and groundbreaking in new, innovative concepts.