



Agrofood meets high-te

Wageningen wants even more collaboration with partners, says the strategic plan of early 2019. WUR is investing heavily in linking agrofood with data science, artificial intelligence and nanotechnology so as to address health and climate challenges.

ILLUSTRATION JEROEN MURRÉ

Collaborating with other research institutes and companies is a familiar line of approach at Wageningen University & Research. But now that ‘Finding Answers Together’ has been adopted as a spearhead policy in the strategic plan for 2019-2023, links are being intensified, extended and given more substance. ‘We know that institutes and disciplines cannot tackle the global challenges on their own,’ says rector magnificus Arthur Mol. Wageningen is going to work closely with partners such as Eindhoven University of Technology, Utrecht University and the latter’s Medical Centre. The four boards plan to sign an agreement around the New Year. ‘Wageningen and Eindhoven are fully complementary,’ says Mol. ‘In Eindhoven they are interested in agrofood and sustainability and want to work on them with us. And we want to invest in data science and artificial intelligence:

topics Eindhoven has fundamental knowledge on.’

ARTIFICIAL INTELLIGENCE

Wageningen and Utrecht have a lot of common ground too. ‘Animal scientists in Wageningen work a lot with the Veterinary Science faculty in Utrecht, the plant researchers already collaborate on the topic of phenotyping, and in the environmental sciences we are collaborating in the research school Sense,’ says Mol. Utrecht University’s Medical Centre was brought in on the collaboration too. ‘Our nutrition groups are keen to work with them on healthcare issues. So last year the four institutions got together and decided to start experimenting with intensive collaboration, initially on molecular life sciences, artificial intelligence and education.’

In terms of education, the four partners are primarily interested in synchronizing their efforts towards educational innovation and

increased flexibility. They also aim to make their courses more accessible to each other’s students. Mol: ‘It should be made easier for Wageningen students to take a course or a minor in Utrecht or Eindhoven, and vice versa.’

INVESTING

Each of the partners will invest one and a half million euros a year for the next four years. ‘So we are going to invest 24 million euros altogether. In March 2020 we shall hold a meeting in which our scientists will explore the form the collaboration will take.’ Wageningen was admitted to another collaborative partnership three years ago, when the 3 TU Federation made up of the technical universities of Delft, Eindhoven and Twente became 4TU.Federation. ‘There is tremendous public demand for technologists who are also sensitive to social and ecological issues,’ says Executive Board chair Louise Fresco, who took over as chair

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of the federation for two years from the end of October. 'It was logical to join forces. Researchers must start being more in touch with each other. One example is the Plantenna programme, which we are implementing together, researching whether we can use a plant as a sensor. That means opening up a whole new territory, and if you only have one way of looking at things, you don't see everything. We are expanding in the domains that are important to us, such as artificial intelligence and the circular economy principle. We are not going in a new direction but we are getting some new input. Access to expertise, people and talent.'

ONEPLANET

Another striking result of a new partnership is the OnePlanet Research Centre, an initiative by Wageningen, Radboud University and its Medical Centre, and imec, a leading international research centre in the field of micro-electronics and nanotechnology. OnePlanet, which moved onto Wageningen Campus in May and has a branch in Nijmegen, is being supported by the Province of Gelderland to the tune of 65 million euros over eight years. Another 81.5 million euros needs to be added to that by other institutions, government bodies and businesses. The ambition is to grow from a staff of 35 in 2019 to about 120 in 2028, and to develop ground-breaking

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digital innovations for addressing the major social challenges related to health, the environment and agrofood. Biodegradable mini-sensors that you sow among your potatoes, watches that offer you personalized dietary advice, microchips that tell you the use-by date of your chicken fillet: all this should be on the market in about 10 years' time, if it's up to OnePlanet.

BIOECONOMY UNIVERSITY

It is not just in the Netherlands that research ties are being strengthened. Six European universities are pooling their research, education and innovation on the bioeconomy, in the European Bioeconomy University. This consortium, which was presented in July, includes Wageningen from the Netherlands, AgroParisTech (France), the University of Eastern Finland (Finland), the University of Bologna (Italy), the University of Hohenheim (Germany) and the University of Natural Resources and Life Sciences in Vienna (Austria). 'Every one of these

universities is a front-runner in its own country in the field of the bioeconomy,' says Luisa Trindade, professor at the Laboratory for Plant Breeding, who represents WUR in the consortium.

The international Agrofood 5 Alliance had already been launched in 2018; this is a partnership focusing on agriculture and food formed by Wageningen, China Agricultural University, Cornell University (US), UC Davis (US) and the University of São Paulo (Brazil). 'Our shared mission focuses on educating the leaders of the future with the aim of helping to bring about changes to the food production system,' says Tiny van Boekel, emeritus professor and a former dean at WUR, who was involved in establishing the Alliance. 'We want new generations of students to start learning to work on the world food supply problem during their degree programme.' ■
More information about these and other collaborative ventures involving Wageningen at: www.wur.eu/collaboration