

Key note at the HEInnovative Conference 'Make Innovation Work in Higher Education, Brussels 27-28 February

Ladies and gentlemen,

When I was invited to speak to you today about our vision on innovative & entrepreneurial higher education, all sorts of people that I could tell you about immediately started popping into my head. People who help us to see clearly where our opportunities and challenges lie, people who dare to go off the beaten track, people who inspire. Because that's my main goal for today: for us to be inspired together. And, of course, I would also like to tell you how we view innovation and entrepreneurship in Maastricht.

That's why I'm going to introduce you to three people today.

Marloes is an alumna of our master's in Health Food Innovation Management. She's currently working on bringing to the market a low-carbohydrate- pasta that she developed, which is made from a nutritious component of oats.

The second is **Matthijs**. He's currently featured prominently on the homepage of our university, as a 'hybrid researcher'. He works with us in two disciplines, in which he also received his PhD, and which he combines with his job at Philips Research.

And the third is **Arie**. He has nothing to do with Maastricht University, but is the Chief Disruption Officer at the Grafisch Lyceum Rotterdam. This secondary vocational training programme uses the slogan 'move before you're ready'. One of Aries' one-liners is "Every teacher who can be replaced by technology deserves to be."

But before I tell you more about this inspiring trio, I'll briefly explain why I believe I'm standing before you. At least, I suspect that the invitation has something to do with how we do things in Maastricht, and have done since we began more than forty years ago.

That starts with how we teach, namely in small, self-directed groups that work on real-life problems. You don't see many large lectures with us. Students work together, present their ideas to each other, formulate their learning goals and objectives, of course under the guidance of an instructor. An alumnus recently

summed it up quite nicely: "Whereas at another university you could go about your life anonymously for four years, that's impossible in Maastricht."

We expect students to take the initiative, or at least to develop it during their studies. In the early years, the critics of our Problem-Based Learning vision sometimes said that students primarily learned skills, while the level of knowledge lagged behind. Now, in 2018, everyone will agree with us that learning skills and working independently, creatively, together with others, is at least as important as acquiring knowledge.

In our rapidly changing society, a person's IQ or EQ will not be the most important factor for success, but rather their AQ: adaptability quotient. Companies can only be resilient if their employees are, and we have to train them for this. I'll come back to that soon.

Another quality that's been important to our university for many years now is our diverse student and staff population. We have the most international student population in the Netherlands: more than half of our students come from abroad and we have more than 100 nationalities on board. They learn together in our 'international classroom', which gives them a broad perspective on the world.

Our programmes also often have an international dimension, which helps prepare students for the international labour market of the future. An international perspective at all levels has been identified as one of the characteristics of an Entrepreneurial Higher Education Institution. It's not possible for higher education to be entrepreneurial without being international.

And we don't just rest on our laurels as far as this is concerned. Of course, we have a university-wide Centre for Entrepreneurship and we offer tailor-made programmes for future entrepreneurs. At our Institute of Education Innovation, called EDLAB, we analyse how global developments, such as emerging technologies, internationalisation and changing dynamics in the labour market, alter the way students think and learn — and how this will affect higher education as a whole. Arie has interesting ideas about this, I can tell you that.

We work in so-called 'academic workplaces', where students, scientists and clinicians work together on care for the elderly, for example. In this way, we bring together practice, science and valorisation. In the future, we would also like to establish this type of workplace which has to do with the Future of Europe in Maastricht, in collaboration with the municipality and the province and with the citizens in our region. We brainstorm about new courses that will prepare students for their role in the 'digital society' and we experiment with Microsoft's Hololens and investigate how such technologies can enrich our education.

Progress is often linked to technological innovation. These technological 'revolutions' come in waves and try to answer questions from society. Companies, as well as educational institutions, survive such revolutions if they can adequately anticipate these changes. Creativity, thinking outside boxes, is a crucial characteristic in this. But above all, I believe that we as a university must also remain critical and dare to go our own way.

Despite the digital revolution that we're in the middle of, in Maastricht we think that the strength and value of people is what's most important. We're convinced that not only human creativity but also human contact remains indispensable in education, research, innovation, entrepreneurship, you name it. The current generation of recent graduates are primarily looking for a job where *they* can be of added value, as well as a workplace where they're not just a number. I'm convinced that meaningful contact is also essential for higher education.

And that brings me back to Marloes Martens. She chose our unique master's programme in Health Food Innovation Management, which is offered at the Brightlands Campus in Venlo. It's one of the four campuses where we try to bring education, research and the business community as closely together as possible. The programme combines nutrition and health with business and management, consumer sciences and food law. One of the assignments that Marloes was given was to come up with a new product and write a business case for it. Marloes thought, 'Why can't healthier also taste better?' She started experimenting with oats in her own kitchen and developed a unique pasta, made from healthy bran from oats. During the last six months of this master's programme, the students usually conduct an internship at a company. But Marloes had already received so many positive

reactions to her pasta that the programme director gave her the opportunity to further investigate the possibilities for starting her own business during that period. Now, half a year after graduation, she has found a professional producer, with whom she hopes to start selling the pasta in stores at the end of this year, under the brand name Oatelli.

Matthijs Cluitmans once thought that he wanted to become a doctor, but in fact there was also a mathematician in him. And so, he studied not only medicine with us, but also finished a bachelor's and a master's degree at the Department of Knowledge Engineering. He continued along this line for his PhD research, during which he was literally employed half-time at Knowledge Engineering and half-time at our cardiovascular institute, CARIM. His independence got a huge boost, because his supervisors came from both disciplines and Matthijs had a hell of a job establishing a PhD trajectory that he thought was interesting. The scientific and personal click of his two professors made this interdisciplinary project possible and it is the foundation for Matthijs's career, which is already very promising. His knowledge and skills regarding cardiac arrhythmias are now also being used at Philips Research. "In this case, one and one is three", he says, and as a mathematician, he realises that this is a bold statement.

And when I say 'bold statement', I automatically come to Arie van Tilborg from Rotterdam. The term 'disruptive' has been floating around in the education world lately. How 'disruptive' will Artificial Intelligence, Blockchain, Big Data and more, be for the education system as we know it today. Is it 'the end of the world as we know it'? According to the Cambridge Dictionary, 'disrupt' means: to prevent something, especially a system, process or event, from continuing as usual or as expected. Or, more specifically, in a business setting: to change the traditional way that an industry operates, especially in a new and effective way. And that's exactly what Arie van Tilborg is trying to do at the Grafisch Lyceum Rotterdam. To my knowledge, this is the first educational institution that employs a Chief Disruption Officer. He examines the possibilities of the technologies of the future. Or, in his own words: "to shake things up in order to permanently reinvent the way we work and learn. Shift happens." His statement that every teacher who can be replaced by technology deserves to be may come across a little harsh. But it's true. Here, too, the human dimension is ultimately of distinctive importance.

At the same time, it gives me confidence that university education, especially in the form in which we consistently offer it in Maastricht, still has its rightful place in the future. Whereby innovation (in whatever form) will certainly play an important role, but not the leading role. That is reserved for the potential inside each student. So that in a small-scale environment, budding entrepreneurs can be given the space to flourish. By the way, I want to define entrepreneurship more broadly than having to do solely with business enterprises.

The current generation of graduates is very much socially involved, thankfully, and they have also emerged as social entrepreneurs. Especially when it comes to student-led initiatives, universities also have a role in facilitating the sustainability of such initiatives. And as far as I'm concerned, 'entrepreneurial' doesn't mean that everyone has to become an entrepreneur. It's about people being adaptable and taking the initiative so they can cope with the world of change that awaits them—curiously, with confidence.

The main role of the 'education of the future' is to facilitate human interaction, so that crucial skills for the future can be developed. Through human contact, scientists and students get to know one another and they can lay the foundation for fruitful careers in both science, business or any other sector.

For some more traditional higher education institutions, this emphasis on the human dimension may be somewhat more challenging when it comes to their capacity to adapt. But it is only in this way that together we can cultivate those entrepreneurial professionals who will shape our future.