ISSUE 03 UNIVERSITY OF TWENTE MAGAZINE JUNE 2021

Campus

60 YEARS UT

COLOPHON
This Campus Magazine is a co-production between U-Today, Marketing & Communications and the Alumni Office at the University of Twente.

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Design and realization
Vanille Design (www.vanille.design)

FOREWORD

ALUMNI

An eternity ago, when I first joined the UT Nieuws editorial team, I was quickly sucked into the 'world of alumni.' Mainly responsible for this was former chief editor Bert Groenman, a walking encyclopaedia for anything to do with the UT's history. 'You must know the past to understand the present,' he would tell me and my colleagues time and again. He was right. He could effortlessly recite the names of the first generation of alumni. That always came in handy whenever we had to dive into the university's history - which is exactly what we're doing now. With the 'Eyewitnesses' series (page 4) we are celebrating the UT's sixtieth anniversary.

One good thing about our university being relatively young is that you don't have to search long to hear exciting stories about 'the way things were.' It has been my pleasure to hear many of these stories from the alumni who lived them and write them up. Some left a deep impression on me. Take Marleen Sanderse, alumna of the Public Administration programme, for example. I interviewed her in 2008 for the former Alumni and Relations Magazine. She had to have her leg amputated in 2004. Four years later, she competed in the Paralympic Games in Beijing. Now, thirteen years later, she has just been recently appointed as mayor of Hattem (page 30) and we interviewed her again, together with another newly minted mayor: Danny de Vries, Communication Studies alumnus (that's right, the guy from the fireworks disaster).

In Latin, the word alumnus literally means 'foster child' or 'pupil.' I particularly like the former. After all, the UT cares for its students - but only temporarily. Now, sixty years after its foundation, circa 54,000 of the UT's 'foster children' have left the nest. We will continue to watch them for the next sixty years. That's because - just like real parents - we like to stay involved in their lives. •

Maaike Platvoet
Editor-in-chief Campus magazine

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Beeldbank University of Twente

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60 YEARS UT

1961-1980

‘EVERYONE WANTED TO MAKE SOMETHING OF IT IN TWENTE’

THIS YEAR, THE UT IS CELEBRATING ITS SIXTIETH ANNIVERSARY. OVER THE COURSE OF THREE ARTICLES - THE FIRST OF WHICH APPEARS IN THIS EDITION - WE WILL LOOK BACK ON THE UNIVERSITY’S HISTORY TOGETHER WITH EYEWITNESSES, STARTING WITH THE FIRST TWENTY YEARS. ‘EVEN IN A CLOSED CAMPUS COMMUNITY, YOU CAN’T KEEP THE ZEITGEIST AWAY.’

1964 - The first batch of THT (UT) students

Those delving into the history books will learn that the university was founded in 1961. At the end of that year, the Dutch House of Parliament voted to establish a technical university of applied sciences in Twente. It wasn't until 1964 - after more than two years of construction - that the first 247 students embarked on their studies at the Twente Technical College (THT), the predecessor of the UT. The first-year students, among whom were three girls, were introduced to the world of electrical engineering, mechanical engineering and chemical engineering.

Henk den Herder, who was among that very first group of students, can still remember the early years well. 'Everything still had to be arranged, which meant everything could be arranged. That was the mood on campus at the time.' According to the alumnus, almost all students and staff shared the same pioneering spirit. 'Everyone had a positive attitude. We were all convinced we were going to make something of it in Twente.'

Den Herder travelled to Enschede from the west of the country after having his interest piqued by the many new developments that are taking place in far-away Twente. He was not disappointed: there was no shortage of exciting experiments at the THT. For example, there was the general foundation certificate and the baccalaureate. The general foundation certificate allowed first-year students to get a taste of the three technical fields of expertise (chemical engineering, electrical engineering and mechanical engineering) before making their final choice. There was also plenty of room for the social sciences in the curriculum in Twente.

The baccalaureate was backed by a remarkable philosophy, Den Herder knows. 'Companies like Shell and Unilever needed technical students. In keeping with tradition, many Dutch students would stay at university until the age of twenty-seven or so. Far too long, in other words. More manpower was needed quickly.' The bachelors from Twente had to be trained faster. They would join a company's workforce after three and a half years of studying. They could learn the rest on the work floor. Nothing much came of this idea, however. Almost everyone opted to pursue a degree in engineering after obtaining their baccalaureate, Den Herder says. This meant students from Twente also stayed at university for a relatively long time.

The general foundation certificate and the baccalaureate were completely unique in the Netherlands. The same was also true for the campus. In the sixties, it was still mandatory for students to live on university grounds. This was believed to contribute to their development. 'You were given a room with a bed and a desk,' Den Herder explains. 'I lived at Calslaan 3. It was basically like a hotel. Maids came in every day to do the washing up, clean the kitchen and change your bed sheets once a week. The ladies even rousted students out of bed if they slept in for too long. 'Sir, you have to go to class,' they would say.' He laughs: 'Something like that would be completely unthinkable these days.'

WHO'S WHO

HENK DEN HERDER studied mechanical engineering and business administration at the UT from 1964 until 1972. After his studies, he had a long career at Shell, among other places.

HARRY FEKKERS studied electrical engineering and business administration back-to-back at the UT from 1967 until 1974. After graduating, he first got a job as head of the planning department and later as head of Financial and Economic Affairs (FEA) at the UT. Fekkers left the UT for Maastricht University in the late 80s.

BEN BETLEM studied chemical engineering at the UT from 1970 until 1977. He worked at Eindhoven University of Technology and Koninklijke Hoogovens (now known as Tata Steel). He returned to the UT in 1988 and obtained a doctoral degree in the 90s. From 2007, he served as the programme director of the chemical engineering bachelor's and master's programmes and the nanotechnology master's programme.

EEFKE SMIT studied public administration at the UT from 1978 until 1985. She graduated under professor Kreiken (business administration) with her research into Industrial Policy for High-Tech Businesses. Smit worked at NRC Handelsblad and the scientific publisher Elsevier, among other places. She now works as Director Standards and Technology at STM, the leading international trade association for academic and professional publishers. •

1965 - Marina van Damme was the first person to obtain a PhD at the THT

1966 - Official opening of the outdoor swimming pool

DEMOCRATISATION

The photo albums from those early years only contain pictures of neat young men (and the occasional young woman), often wearing dapper suits. Harry Fekkers began his studies at the THT in 1967. Back then, the interaction between staff and students was still quite formal, Fekkers recalls. Nevertheless, the two groups had a slightly closer bond at the brand-new university of applied sciences than at other classical universities. 'Informal pronouns were certainly not used, though. It wasn't until the late 60s that the THT became truly egalitarian.'

This need for equality, which characterises the late 1960s, began with the student protests in Paris, which spread across the rest of Europe like an oil stain. The occupation of the Maagdenhuis, the administrative building of the University of Amsterdam, became the symbol of the student protests in the Netherlands. The occupiers demanded that their voices were heard on the university council. Not long before, students in the province of North Brabant had occupied the Catholic University of Applied Sciences in Tilburg. They renamed their university as the Karl Marx University.

A young Harry Fekkers was there for all of it. 'In Twente, where I was studying, we had just formed a student parliament. We discussed the occupation and the Karl Marx University. During that meeting, a motion was passed in which we expressed our solidarity with the students in Tilburg. That same night, we drove across the country in an Opel Kadett to present the motion to our comrades in Tilburg.'

The student protests led to a wave of democratisation in the world of higher education. The University Governance Reorganisation Act of 1971 gave students a greater say in the affairs of their universities and universities of applied sciences. Even before the Act entered into force in 1972, the UT got its own university council. 'As students, we wanted different education, more freedom of choice, more trust and more of a say in what the available money was spent on,' Fekkers says. 'For the most part, we got what we wanted.'

Although Drienerlo has always remained a moderate environment, tensions did flare up occasionally at the THT as well. One example is the occupation of the BB building (now the Spiegel building) in August of 1972. Students were protesting the decision to exclude students who refused to pay their tuition fees, which had recently been raised from 200 to 1,000 guilders. Some fifty students occupied the building, including members of the Progressive Coalition Electoral Association, which sat in the University Council, and the Marxist-Leninist Student Collective.

'That occupation goes to show that you can't keep the zeitgeist away, even in a closed campus community,' says Ben Betlem, who enrolled in the chemical engineering programme at the THT in 1970. 'Since the THT was a younger and less hierarchical institution than other universities, political engagement was less fierce than at other Dutch universities, but it was there all the same. Far more than today, the students of the former Technical College were on the left and far left of the political spectrum. There was a real thirst for creating an egalitarian society.'

1972 - Occupation of the BB building (nowadays Spiegel)

CHANGES

The early seventies also marked a period of great changes for the THT. Many ideals from the early years were under pressure or vanished altogether, Betlem remembers. 'It was a tumultuous time. My study programme was still very much based on those early ideals: a foundation year for all students followed by a three-and-a-half-year baccalaureate and then - for those who did not move on to the world of business straight away - a two-year doctoral exam, which we would call a master's programme these days. At the same time, I - a student of chemical engineering - also had nine social-science subjects.' Betlem witnessed first-hand how more and more of these ideals faded away. 'The housing requirement was abolished, the number of social-science subjects was reduced, the baccalaureate never really took off, the foundation year was under pressure and later abolished as well. The THT gradually became a two-core institution, one core being technology and the other social sciences.'

Eefke Smit, who enrolled in the public administration programme in 1978, also saw the THT struggle to find its identity during those years. 'Around 1978, the campus was officially declared a failed experiment. The ideas had been ambitious, but many had not panned out,' Smit knows. 'The university was too technical, which had turned it into a unilateral community of men. Women made up fewer than two percent of the student population for the technical programmes. The campus was years ahead of the term 'bubble,' seeing how isolated everything was. That also resulted in the breakdown of the interaction with Twente. Everything was happening at a single remote location, which was not that easily accessible. Furthermore, the number of students was not growing as rapidly as expected. The technical students were a fairly nerdy bunch, which did nothing to attract more women.'

To improve the THT's image and make the campus population more diverse, socially-oriented programmes were introduced, such as public administration and educational science. There were also plans for a new medical and law faculty, but that was ultimately established in Maastricht. With the introduction of the public administration and educational science programmes, Smit saw the campus begin to change - although it obviously took time. 'The THT wanted to get rid of its pompous image, but that was not always handled very tactfully. I remember that the new student accommodations for girls were located directly next to the building where the unmarried scientific staff lived. That was no coincidence, of course. We called that flat the 'hunkerbunker.''

According to Smit, the THT community's strong desire to improve its image resulted in unlimited possibilities. 'There was so much energy everywhere you looked. Everyone was eager to make the best of it after those difficult early years. Twente languished at the bottom of the university rankings and everyone wanted to do something about that. Since management was all too eager to promote the university during those years, there were some amazing internship opportunities for us. We were stimulated to do new things, which led to some prestigious posts.'

The THT's entrepreneurial nature will continue to be a defining characteristic of the educational institution in the years that follow. The young university constantly has to reinvent itself, because its position is never a given. There's a reason why the THT's early years have occasionally been described as 'an experiment in the woods.' As 'test subjects,' Den Herder, Fekkers, Betlem and Smit undoubtedly look back fondly on their time in Twente. For all four, the small and close-knit campus community brings back warm memories.

Was the grass truly greener back then? 'Perhaps a little,' Betlem says. 'What always appealed to me was that multidisciplinarity that is so typical of Twente. It has been brought back a bit in recent years with the introduction of the Twente Education Model. There's a reason why the buildings here are not named after a faculty. The different disciplines all share the same facilities, which strengthens the sense of community. The university should cherish that - now and in the future.' •

1975 - Batavierenrace on campus

HUIZE 'T POTT **TURNED PINK**

A good joke or a step too far? The white student villa of Huize 't Pott on the Oldenzaalsestraat in Enschede was painted almost entirely pink during the night of the 21st of March. The residents didn't notice anything until the morning when they found their house has turned a different colour. The rushed paintjob was most likely a practical joke by a neighboring student house OD 308. •

PRINCE FRISO **ENGINEERING PRIZE**

UT scientist David Fernandez Rivas was awarded the prestigious Prince Friso Engineering Prize (Prins Friso Ingenieursprijs) 2021. This makes him 'engineer of the year' in the Netherlands. Fernandez Rivas is best known for the needle-free injection technique he works on. In this technique, needles are unnecessary. The drug itself acts as a needle because it is 'shot' through the epidermis at high speed. 'This is a hot topic mainly because of corona vaccination, but I want to emphasize that this technique is not central to this prize. It's also about the development of microbubbles. That has come up a lot. The professional jury interviewed the three candidates in the run-up to the finals, and it's a broader project than just needle-free injection.' •

UT STUDENT BECOMES **'PRIME MINISTER'**

Timon Metz, UT master's student of Business Administration, can officially call himself 'Prime Minister of the Dutch student cabinet' formed in the spring. The fourteen universities of the VSNU umbrella association have all nominated a student who could become a minister. The UT was given the honor of supplying the Prime Minister and Timon Metz emerged as the best candidate.

The student cabinet is not affiliated with any political party, nor any student union. The student ministers do not speak on behalf of students, but 'on behalf of science and on behalf of the universities'. Their goal is to translate science into policy for the Netherlands. •

SOUNDING **THE ALARM**

The University of Twente has supported the national Alarmdag (Alarm Day) held on the 6th of April, aiming to draw attention to the structural underfunding of Dutch universities. Although the number of students has been increasing for years, funding per student has dropped. This has left little time and financial resources to conduct high-quality research or deliver high-quality teaching. This is why teaching staff, researchers, students, administrators and alumni of all fourteen Dutch research universities, including the UT, came together to 'sound the alarm', calling on the new government to invest 1.1 billion euros to scientific research and education on a structural basis. •

UT AND VU START **TWO JOINT BACHELORS**

The UT and the Vrije Universiteit (VU) are joining forces again. From 2023, the universities will offer two new joint bachelor's programmes in Amsterdam: Creative Technology and Industrial Engineering & Management. The two universities already started a joint bachelor's programme in Mechanical Engineering in the city of Amsterdam in 2019. Now two more programmes will follow. In addition, the two universities are looking into the possibility of offering more joint bachelor's programmes in the near future, both in Amsterdam and Enschede. •

NEW BOARD **MEMBERS**

The UT Executive Board has two new members. As of 1 September, Vinod Subramaniam will become the new president of the Executive Board, succeeding Victor van Chijs, who left the UT in April after eight years as chairman. Subramaniam is no stranger to the UT. He was scientific director of research institute MIRA from 2012 to 2013. Since 2015, Subramaniam has been rector at the Vrije Universiteit (VU) in Amsterdam.

Machteld Roos will be the new vice-president, replacing Mirjam Bult in the position. Roos' career began as a consultant for IBM. Since then, she has held various leading positions in both the public and private sectors. Currently, Roos is director of the Environmental Sciences Group of Wageningen University and Research (WUR). •

Photo: Rikkert Harink
Text: Rense Kuipers

RECTOR TOM VELDKAMP ABOUT STUDENT WELLBEING

TOM VELDKAMP, WHO HAS BEEN THE UT'S RECTOR MAGNIFICUS FOR OVER SIX MONTHS NOW, WANTS TO IMPROVE THE WELLBEING OF STUDENTS AND STAFF. HE TALKS ABOUT HIS PROPOSED SYSTEM TRANSFORMATION.

01

IS STUDENT WELLBEING A BIGGER ISSUE FOR THE UT THAN THE CORONA CRISIS?

'I would certainly say it is. The pressure is on for the younger generations. Everyone wants to perform as well as they can, but that can have an impact on their wellbeing. As a university, we share some of the blame for this societal development: not everyone is able to cope equally well. The corona crisis mostly exacerbates the pressure that already existed. It underscores the fact that some of our students are not feeling very well. Besides recognising and acknowledging this issue, we also have to do something about it.'

02

WHY IS THIS ISSUE SO IMPORTANT FOR YOU?

'Your student years are the most formative years of your life. It is not just about acquiring new knowledge, but also about developing your personality. It is up to us to help students find their place in the world and support and stimulate their development.'

03

HOW DO YOU INTEND TO DO THAT?

'There are lessons we can learn from the corona crisis. There are clear downsides to doing everything remotely: there are fewer valuable interactions and you can lose touch with those around you. While that has a negative impact on some students, others thrive because of their new-found flexibility. We do not intend to do everything in hybrid form in the future, but there are some elements we can hold on to. In close conference with each other, we have to facilitate the best of both worlds for our students.'

04

WHAT ABOUT THE WELLBEING OF STAFF?

'For them, their workload and career perspectives are the key issues. We want to offer our staff more and more varied development opportunities. The current system is set up in a very traditional manner and focuses largely on performance in research. We want to expand our methods for acknowledgement and appreciation, so as not to require everyone to meet the same standards. We have our work cut out for us in that regard. In concrete terms, this means you cannot merely excel in either education or research, but also with e.g. your management or organisational skills.'

05

CAN SOMETHING LIKE THIS ONLY BE SOLVED WITHIN THE UT ITSELF?

'A structural increase in funding for all universities would be wonderful, because it would give us the opportunity to show our appreciation for our staff in different ways and reduce their workload. However, the Dutch funding system - with the Dutch Research Council leading the charge - is highly competitive. The winner really does take it all. Competition is not necessarily a bad thing, but every researcher should have a solid foundation to fall back on. We want everyone to be able to spend time on their education and their research, because the two are inextricably linked. Fortunately, our lecturers are incredibly involved with their students. That is another argument for adopting a broader perspective on wellbeing: if our staff have more breathing room, our students will directly benefit from that.' •

Photo: Rikkert Harink
Text : Hiska Bakker

CULTURE: **ALL FOR** THAT SINGLE SECOND

Not being able to visit festivals, theatres, museums, music venues, concert halls... is that a bad thing?

After months of life in a pandemic, the lack of music, art, shows and performances is beginning to take a toll on me. It is wonderful that institutions have begun offering live streams or virtual visits in which people can scroll from one painting to another. For me, it is all too smooth and sterile: experiencing these things via a screen doesn't come close to the real thing. I miss the murmur of the crowd in a room. The physical presence of other people. The smell of someone who ate too much garlic at dinner or applied their perfume a bit too generously. The palpable excitement before a performance begins. The silence that sometimes falls when something special happens. Talking about what you just experienced as you wait to retrieve your coat amid a throng of people. Such sensations always gave the experience extra dimensions for me.

It is more than just an experience. Culture also gives you the opportunity to develop other thoughts. Some experts come up with impressive-sounding philosophies. My point is that you discover new and different ways to look at, listen to, smell and taste the world around you or yourself and that this will lead you to new interpretations. It sharpens your mind and broadens your perspective. The same belief was held by the people who founded the Twente Technical College (THT) in 1961. From the very beginning, the campus was more than just a place to study and conduct research. Culture was deemed to be an essential aspect of it as well. Students were given every opportunity to make music together. Start bands. Organise shows and expositions. Discuss politics, religion and life itself. Prominent authors like Mulisch were invited to come to Twente by the Drienerkring, whose name was a reference to the famous seventeenth-century Muiderkring of P.C. Hooft and Maria Tesselschade.

The THT also collected art; these days, its collection contains more than a thousand pieces. Artists were also commissioned to create statues, such as Ger van Elk, who came up with the Sardineblik on the Drienerlolaan. Wim T. Schippers designed the "Torentje" in the pond in front of the Vrijhof.

Campus dean Jan Schuijer introduced a special Schuijer Campus Culture Prize long after his retirement. Every year, this prize was given to a student with a remarkably artistic talent, whether it was breakdancing, playing the drums or juggling. There were only two conditions: the student had to be a member of an association, i.e. create something together with others, and obtain good grades...

Yes, I hate to see culture suffering so badly during this pandemic. What I miss most of all are the moments when, in the middle of a concert, you suddenly hear a single note that has an unearthly beauty to it. Discover a fantastic shade of red in a picture. Are moved by an asynchronous dance move or a mysterious shadow. Culture gives you the opportunity to transcend yourself. Call it mysticism or a different form of consciousness. That is why I hope that the UT will work even harder to stimulate the cultural life of its students. I want everyone to get a chance to experience that single second of transcendence. Breaking away from yourself. Being free. I long for culture for that single second. •

Hiska Bakker
Historian, journalist and a presenter at Studium Generale

Photos: Rikkert Harink
Text: Maaike Platvoet

‘I MOSTLY DO **WHATEVER I LOVE’**

HE IS ALWAYS UP FOR ANOTHER COMMITTEE, ADVISORY BOARD OR STUDENT JOB. HIDDE ZIJLSTRA (23), A BACHELOR’S STUDENT OF THE INTERNATIONAL BUSINESS ADMINISTRATION PROGRAMME, IS POSITIVELY BURSTING WITH ENERGY. HE APPEARS AT ALMOST EVERY UT EVENT. WHO IS THIS AMBITIOUS YOUNG MAN?

We meet on the ninth floor of the U-Parkhotel. The ‘boardroom’ offers a phenomenal view of the campus. ‘Wow,’ he exclaims when he first looks out the window. ‘Isn’t the campus beautiful?’

There aren’t many students who get to stand next to King Willem-Alexander during the UT’s Dies Natalis celebration while moderating the event at the same time. Likewise, there aren’t many students who hold seats on the University Council and thirty-odd other committees, advisory boards and clubs. Or who do so much to stimulate technological development in the Netherlands or who preside over a staff meeting for UT managers and present everything in fluent English. For Hidde Zijlstra, it is business as usual. This blonde bloke is bursting with energy and possesses a remarkably joyful and eloquent personality. In short: he’s an ideal candidate for many student jobs at the UT. How did this happen?

Perhaps his Frisian roots have something to do with it? Hidde was born in Dokkum, moved to Leeuwarden at the age of one and grew up in a typical ‘Vogelaarwijk.’ ‘My parents got divorced, I stayed with my mother and never really saw my father since,’ he says fairly calmly. At the same time, he doesn’t want to delve too deep into the matter. ‘It’s not a secret or anything, but I wonder who would care about all that. Growing up with just a mother has never been an issue for me. I am very close to her, in part because it was just the two of us for so long.’ When Hidde was nine years old, his mother found a new partner. After a while, he became like a father to Hidde. ‘I don’t know what it is like to have a father, but he is the closest thing I have to one.’

SCHOOL YEARS

In his younger years, he made countless trips from the mainland to Schiermonnikoog, where his mother worked as a cleaner. They did that every other week on weekends. ‘I just went with her and spent my time playing with sticks in the woods. I was a real boyish child.’ Later - when he had to go to school, a childminder watched over him. Hidde thrived in school. ‘I attended a multicultural school and knew that there was something different about me. Many of my fellow students had language difficulties, while I got on very well with language and arithmetic.’

Secondary school, the Stedelijk Gymnasium first and the Leeuwarder Lyceum later on, posed more of a challenge. ‘I really wanted to go to the gymnasium, but that was a mistake. I hated Latin.’ But also: ‘I didn’t feel very good during that time and developed a fear of failure. I was quite a quirky child, just like my best friend. We often ate lunch together outside. I would usually try to avoid the rest of the

‘I loved talking about the UT at secondary schools. I have a very vocal personality’

group. I also wore a hat inside. That’s a great way to put yourself out there.’ Even though he had thick skin - his own words - the remarks made about him did not leave him cold. ‘I didn’t feel inferior, only different. That does something to you as a teenager.’

Hidde transferred to the technasium in Leeuwarden. A ‘fantastic school’ where he built solar boats and quickly joined the participation council. Even then? ‘Yes,’ he says wholeheartedly. He was elected to the participation council. That was where he learned to ‘negotiate and communicate’ with the school’s administrators. ‘I don’t know exactly why I have always felt drawn to that. I do not see myself as a visionary, someone out to improve the world or stand in the spotlight. I mostly do whatever I love.’

ENSCHEDE

His love for technology, entrepreneurialism and project-based education ultimately brought him to the UT. ‘The Twente Education Model was a real eye-opener for me. I had to see for myself what that was like.’ He initially opted for the Business & IT programme, but that did not turn out as well as he’d hoped. ‘There was a bit too much math involved for my taste.’ After that first year, he switched to the International Business Administration programme.

‘I was absolutely ready to go to university,’ he says. ‘My parents supported me in that. I had also visited my stepbrother’s student accommodation a few times, even though he is ten years older than I am. It all felt great, comfortable and familiar.’

The transition from Leeuwarden to Enschede - in 2016 - went smoothly for the young student. He moved into Huize Grafzicht on the Olieslagweg and joined AEGEE. ‘That’s where it all began,’ he laughs. ‘Via my do-group, I heard there was a job opening in the Study Information Centre. One thing led to another from there.’ His job had him visiting secondary schools to tell students about the UT. ‘It was a lot of fun and I was quite good at it. I think that’s because I have a very vocal personality. At first, I didn’t even know I would be getting paid for it.’

‘Can you see this?’ He points to his iPad. ‘I would be lost without this thing. My entire day is divided into blocks, that is how I stay on top of everything. I know exactly when I have to be where and I reserve enough hours to study.’

AMBITIOUS STUDENT

With his eloquence, Hidde stood out at the Study Information Centre, which forms part of the Marketing & Communication department. He was asked to take care of more and more ‘jobs.’ He was also invited to join the student party DAS, which is short for ‘De Ambitieuze Student’ (The Ambitious Student). Before long, he joined the university council where, he says, he learned ‘a whole lot.’ ‘Especially how careful you have to be when pursuing a goal. Playing the political game. There are so many interests at stake at a university and you have to take them all into account.’ His main focus as a council member was the university’s language policy. According to Zijlstra, it was primarily ‘a discussion between the Executive Board and the University Council in response to the UT’s internationalisation ambitions, which had gotten out of hand. ‘There were quite a few people in the University Council who felt that not everything was done correctly. That was a fascinating case, but also a troublesome one. In the end, it was a good decision to separate the theme of language policy from that of internationalisation.’

When asked if he likes his studies, he has to think about his answer. ‘I am looking for a tactful response.’ He then reiterates: ‘I find that what energises me is doing the things I love. Within my studies I have not yet found something I love.’ Still, he is about to complete his bachelor’s and will certainly follow it up with a master’s programme in Enschede. ‘I’m not sure yet what I’ll choose. I find that I am someone who loves new experiences. For now, I mainly want to broaden my horizon. The time to focus on any one specific area will come later. That is what I want from my studies as well, but I haven’t found it yet.’

His phone rings. 'Sorry, I really have to take this.' What follows is a discussion about artificial intelligence. Some time later, apologetically: 'That was the local paper. In my role as promoter of technology (Aanjagers van Technologie) I get to ask Esther Ouwehand a question during the 'Van Torentje naar Torentje' election debate.

FINDING HIS PLACE

Anyway, Enschede is his home. 'I can still grow here and try new things. Although I am in favour of Keeping Talent in Twente, I will probably be leaving town once I graduate. There are so many other amazing challenges out there!' He quickly adds: 'I already owe the UT so much. I think that is mainly because it is such an accessible institution. That helped me try new things and boost my self-confidence.'

How does he envision his own future, if there are challenges everywhere and he likes almost anything? Above all, Hidde wants to 'find his place.' 'It has to be a busy and energetic place, with plenty of opportunities for me to seize. I trust that everything will work out one way or the other.' What about the ideal picture? He says that he is not cut out for a wife, a dog and two kids. 'Look,' he says as he points to his rainbow-coloured watch strap. 'I like men.' That explains why he, as a member of the student party DAS, fought for more outspoken support from the UT for its LGBTIQ+ community. 'My first step was to write a letter to express my views, but partly with help from other student members, there was a pride flag flying on campus less than a year later. I was truly happy about that.' He notes that he is not particularly vocal about his sexual orientation, because 'that's not me' and 'why would you?'

He glances at his rainbow watch again. It is time for his next appointment. He is taking part in a cooking contest with seven friends from his fraternity Kadmos. Even that has to be planned.

Let's circle back to that one question. How do you stand out so much as a UT student? His eagerness and ambition are plain to see. Above all, Hidde is simply his open, joyful and kind self. Perhaps that's the answer. •

Photo: Rikkert Harink
Text: Stan Waning

‘IT WAS A PARTY WHEREVER **DIONYSUS SHOWED UP’**

THE UT IS HOME TO COUNTLESS CLUBS, SOCIAL ORGANISATIONS AND ASSOCIATIONS. IN THIS SERIES, WE SHINE A SPOTLIGHT ON ALL OF THEM, WITH THIS ISSUE FOCUSING ON: DIONYSUS, THE OLDEST ACTIVE SORORITY IN ENSCHEDE.

In Greek mythology, the name Dionysus refers to the god of wine, grape cultivation and wine making, as well as the god of madness and drunkenness. ‘It was a party wherever Dionysus showed up,’ alumna Maartje van de Vrugt reflects. When she signed up for Dionysus as a master’s student in 2010, the sorority had just become independent. ‘We wanted to become independent because the association was to be dissolved. A merger with student association Audentis et Virtutis and the EHTSV (Enschedeesche Hoogere Textielschool Vereeniging, ed.) broke down, but being without a sorority will leave a huge gap in your agenda. We suddenly had to find a place of our own, because we always used to meet up in the club.’

SAN REMO

The women’s organisation chose San Remo on the Stadsgravenstraat as its new home base. In fact, that is where you can find the members of Dionysus to this day. Like then, they still get together on Tuesday evenings, say current members and master’s students Laura Berkhof and Lieke Pullen. Lieke: ‘It is a small bar with an intimate atmosphere. We have gotten to know the owner well. We also frequently meet up with former members there. Many of them still join us on our lustrum trips. We’ve already been to Florence, Istanbul and Barcelona. At Dionysus, you are a member for life.’

If things had gone a little differently, there would not be any active members of Dionysus today. More than ten years ago, the sorority hit rock bottom. The few remaining members even feared for its existence, Van de Vrugt recalls. ‘We were very small for a while. Every week, the four of us would meet up for drinks. Sometimes, two members couldn’t make it and it was just the two of us. The other person even lived in the same house as you. That situation lasted for a few weeks, but then new members began to join.’

Dionysus was established in early 1983 as a counterpoint to the many men’s associations in Enschede. The earliest members felt no connection with the ‘frumpy’ women’s society Tertulia. It was no less important, as the minutes of the foundation meeting state - ‘to frequently take Bacchus’s arm (Dionysus in Roman mythology) and lose one’s self in a state of exaltation.’

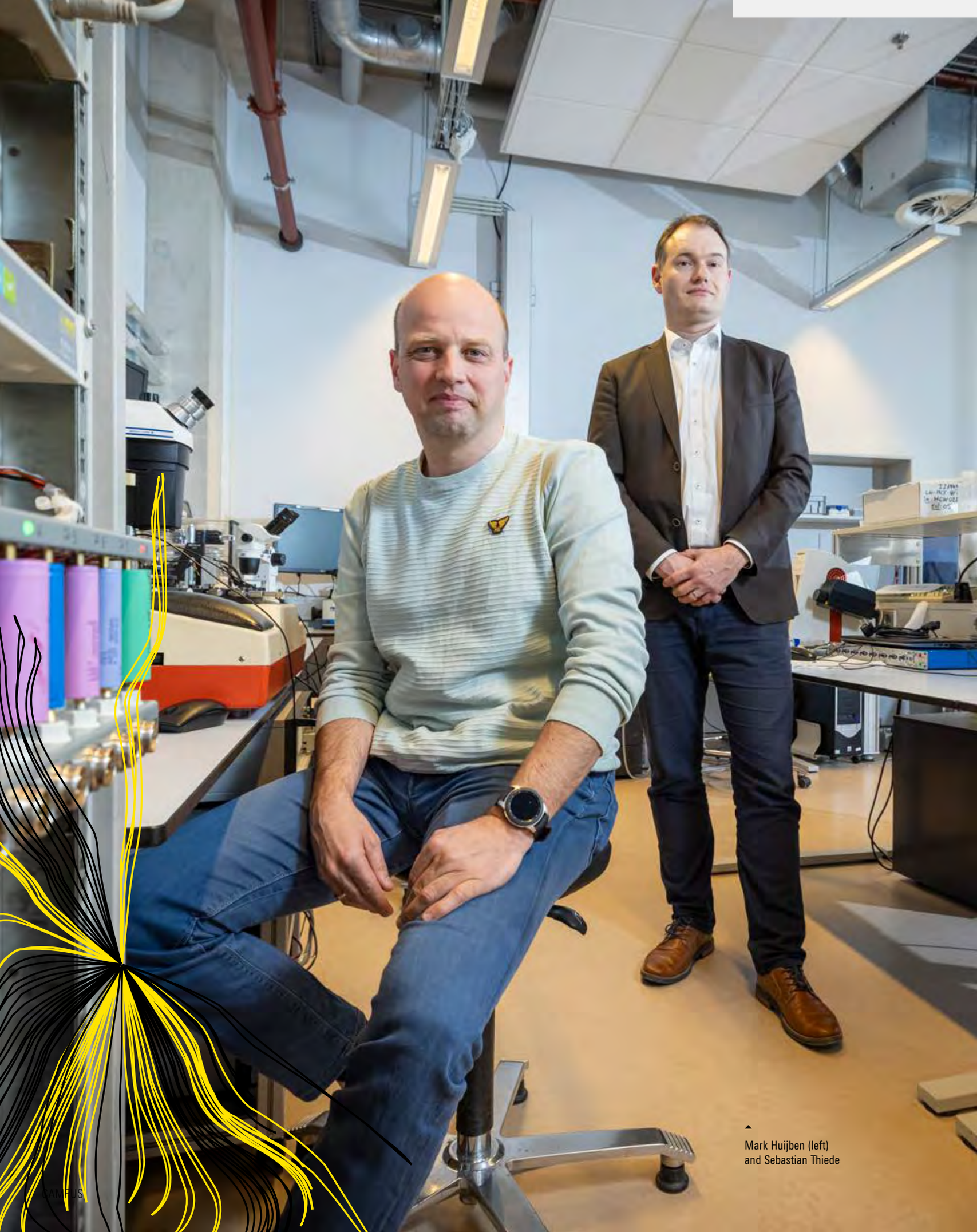
Despite the foundation of Dionysus, there was little need for sororities and fraternities in those years. That was largely due to the fact that the associations were already highly active. Many students did not go home on the weekends. Free public transport for students was unheard of at the time and Enschede was not yet connected to any motorways, so students had to rely on each other. As a result, myriad activities were organised on weekends.

LEVEL-HEADED

If Van de Vrugt, Pullen and Berkhof had to name one trait that defines the sorority’s members, it would be their level-headedness. You’ll not find any crazy stunts or over-the-top theatrics at Dionysus. ‘We also love to get together for drinks. When we meet up on Tuesdays, no one sticks to soda and goes home before midnight,’ Pullen says. Berkhof nods and adds: ‘The members of Dionysus are also active and entrepreneurial. Not just within the society itself, but also in other associations or sports clubs, for example.’

Van de Vrugt was one of the first university students to join the sorority. Initially, Dionysus’s ranks were mostly made up of students from the university of applied sciences. These days, the sorority is a melting pot in more ways than one. ‘That is deliberate. We have always been a small association in which everyone knows each other. To prevent the formation of little groups, we try to maintain our diversity,’ Pullen explains.

Although the founders of Dionysus in 1983 were not the first to come up with the idea for a women’s student organisation, Dionysus is the only one that continues to attract new members to this day. Based on that criterion, Dionysus can truly call itself the oldest sorority in Enschede. Are the ladies proud of that? Berkhof: ‘For us, it is mostly a given. It is a nice little factoid to share when you are having drinks with members of other associations, but no more than that. We know that the founding members are particularly proud to see that their society has survived and remains active to this day.’ •



Mark Huijben (left)
and Sebastian Thiede

Photo: Rikkert Harink
Text: Wiebe van der Veen

GREEN MOBILITY

'IT'S DOWN TO THE **BATTERY NOW'**

THE ELECTRIC CAR IS GAINING GROUND. ELECTRIC BIKES ARE EXTREMELY POPULAR. EVEN ELECTRIC BUSES, TRUCKS AND LIGHT AIRPLANES ARE ON THEIR WAY. STILL THERE IS ONE PART THAT DOESN'T SEEM TO KEEP UP WITH ALL DEVELOPMENTS. THAT IS THE BATTERY. THE UNIVERSITY OF TWENTE, THEREFORE, STARTED A NEW RESEARCH CENTRE THAT COVERS THE BATTERY LIFE CYCLE AS A WHOLE. FROM RAW MATERIALS TO SMART APPLICATIONS AND RECYCLING.

Almost everyone is driving an electric car these days, packed with trendy gadgets. At least, that is the impression you get watching television commercials. Looking around on the road, the actual impression is quite different. Of all new cars that rolled out of the showroom in 2020 in the Netherlands, about twenty percent was fully electric. In Norway, this is well over fifty percent. It is not just the price that makes a car buyer hesitate. The driving range plays a role, the availability of charging stations, the effect that temperature has on the performance of the battery. Or the stressed feeling that is called 'range anxiety': will I come to a standstill because my battery is empty?

WORKHORSE

The battery, in fact, is the critical factor for switching to fully electric driving. It seems to lag behind all other technology that is in the car. The first commercial lithium-ion batteries were introduced in the nineties. The 2019 Nobel Prize for chemistry went to Yoshino, Goodenough and Whittinghan, for inventing it. Lithium-ion batteries will certainly be the workhorses in the years to come, says UT professor Mark Huijben: 'It has the advantage of a high energy density. There's not really a better alternative for that. Improvements are possible, though, by choosing other approaches for the positive and negative terminals of the battery, the cathode and anode. The charging speed can be improved, for example.'

Huijben is one of the founders and leaders of the recently started Twente Centre for Advanced Battery Technology (TCABT), in which the University of Twente concentrates its battery research. Huijben's own field of work is about developing new nanomaterials. The battery's anode, for example, is now made of graphite. Instead, the scientist is experimenting with niobium-tungsten-oxide. By structuring this material with tiny nanochannels, the battery can be charged faster. 'Silicon is an option as well, this can hold ten times more lithium. A disadvantage is that it is swelling and shrinking when charged particles pass by. By introducing silicon as nanoparticles, we can take away this disadvantage.'

SOLID-STATE

The decisive breakthrough everybody seems to wait for, is a solid-state battery. Now, the battery dielectric, between the anode and the cathode, is still a liquid. This can be risky, for example if the battery gets damaged or if it is charged in the wrong way. Huijben is convinced that the future is all about batteries with a solid dielectric: 'Just look at the amount of research that is currently done on this, worldwide.' So far, we understood that improvements of the anode are possible, there will be a better dielectric that is still based on lithium, but solid instead of liquid; what about 'the other side', the cathode? For a battery that performs well, still a specific material is needed that, in fact, severely harms the battery's reputation of sustainability. That material is cobalt. 'The latest lithium-ion batteries have a reduced amount of cobalt, but we still need it,' Huyben says. The founder of Tesla, Elon Musk has announced that future generations of his electric cars will be free of cobalt.

RAW MATERIALS

What is actually the problem with cobalt, is explained by Arjan Dijkstra, who is with the UT Faculty of Geoinformation Science and Earth Observation (ITC). 'It is one of the so-called 'conflict materials'. Most of it comes from the Democratic Republic of Congo, as a by-product of nickel and iron. Mining is risky work, often done by children. There aren't that many alternatives. You could think of deep sea mining as cobalt is also in so-called manganese nodules. But that is another type of mining that is controversial.'

Talking about the materials of a battery, what about lithium? We'll need huge and ever growing amounts of this. Dijkstra: 'Lithium is not scarce. There are several ways of mining it; we know the rock mines in Australia, but also the large salt plains, salars, in South America. There, lithium remains after evaporating water and getting the salt out. The local people protest against it, because they say the mining activities extract water from their living environment. Bolivia, for that reason, having the largest salt plains in the world, is already more reluctant in allowing lithium mining. At ITC, we do research on the actual effect of mining on the water resources. What we also can do, using satellite images and remote sensing, is discover new sources of lithium. In fact, we can also use similar advanced imaging techniques to get lithium out of a waste stream. Don't forget that there is another way of satisfying our 'lithium hunger'. That is recycling. And it's hardly done at all, at this moment.'

What is done instead, is giving batteries a second life. An example is the Johan Cruyff Arena soccer stadium in Amsterdam that stores electric energy using hundreds of discarded car batteries. The performance of this huge battery pack, however, will go down over time as well.

GREEN AND SMART PRODUCTION

Making the step from raw and engineered materials towards actual manufacturing of batteries, we meet Professor Sebastian Thiede, who is one of the leaders of TCABT together with Mark Huijben. 'A lot of energy and material is still needed to produce a battery at this point. Producing an electric car has, in terms of CO2 emission and energy consumption, quite some more impact than producing a car that is powered by fossil fuels. My ambition is making this process more energy and cost efficient. Producing a single battery cell that will be part of a larger pack or module, involves steps like mixing the chemicals, coating, drying and producing the sheets of material that will be part of the cell. Standardizing this to a larger extent makes sense, resulting in battery cells, modules and packs that can be used in several applications.'

▲ Lithium mine in Atacama, Chili (foto ANP/HH)

EUROPEAN PLANTS

One of the factors in the process that consumes a lot of energy, is the need for a 'dry chamber': extremely dry production surroundings. This is because the battery compounds, especially lithium, don't like water and could react violently. Thiede would like to find out if it is possible to accelerate the process, so the time spent in the dry chamber is as short as possible. New 'Industry 4.0' insights, using digitization and artificial intelligence, may help. He shares Dijkstra's opinion about the potential of recycling the materials. 'We can get far more lithium out of used batteries using process technology'. Economically speaking, this is not very interesting yet. But it is also clear that the battery, as a major enabler of the energy transition, should be circular. For Thiede, it is essential that battery innovations are shared and applied across Europe. 'Within TCABT, we also look at the geopolitics of battery development. Right now, we simply are too dependent on companies in Asia for the whole production chain. That is not a healthy situation.' European car manufacturers are now investing billions of euros in battery production plants in Europe.

'There is another way of satisfying our 'lithium hunger'

USER PREFERENCES

And then, the battery is ready to be mounted inside a car. From that moment on, it seems simple: charge it and drive, just like filling the tank with fossil fuels. This, however, can be done smarter as well. The future car battery will play an active role in the sustainable energy mix: in this perspective, a car can be seen as a mobile energy storage unit that can deliver its electrical energy as well. At moments, for example, that there is an energy demand at home while the sustainable sources like sun and wind are not delivering sufficient power, the car battery helps out. It is clear that balancing this, requires a very intelligent planning system. UT's knowledge of artificial intelligence and power electronics will help. But there is a behavioural side to it as well: the moment a user needs his car, while the battery is almost discharged for other purposes, he will not take this 'intelligent system' for granted or overrule it the next time. Of course, there is a technical solution that may avoid this, like having a spare battery pack at home. But the need of including user behaviour in TCABT's research is clear. Even looking at the popularity of electric driving in Norway, these human factors play a role. Reduced ferry fares and the permission to use bus lanes with your electric car, show that incentives that have nothing to do with technology, work. •

'A lot of energy and material is still needed to produce a battery'

The Twente Centre for Advanced Battery Technology (TCABT) is focusing on four major areas: next generation battery cells/packs, advanced manufacturing strategies, circular value/supply chains and smart battery applications. It is joining several European networks and prepares a major Dutch research programme together with the other technical universities in The Netherlands. TCABT is closely collaborating with the Battery Research Center MEET (Münster Electrochemical Energy Technology), in which German government invested 700 million euros. TCABT involves researchers of 30 groups within the University of Twente. •

For more information, go to: www.utwente.nl/en/energy/research/twente-centre-advanced-battery-technology/

Photo: Rikkert Harink
Text: Stan Waning

‘GIVE STUDENTS THE **CHANCE TO FAIL’**

WHERE DOES THE PASSION FOR PASSING ON KNOWLEDGE COME FROM? IN THE SERIES ‘MEET THE TEACHER’, WE INTRODUCE UT STAFF MEMBERS WHO ARE TRULY DEDICATED TO EDUCATION. IN THIS EDITION: RAYMOND LOOHUIS.

Loohuis is a senior lecturer working in the Entrepreneurship & Technology Management department of the BMS faculty. Ask him about what he thinks constitutes good education and he will share his clear vision with you. Loohuis strives to sufficiently incorporate practical reality and he enjoys seeing business or institutions allowing students to run into everyday problems. This gives them the opportunity to explore the nature of the issue. It is certainly true that Loohuis grades his students in the traditional manner, but he would much rather hear what they actually learned. How they approached complex issues, found a solution and dealt with criticism.

According to Loohuis, the difference between a good and an excellent teacher presents an interesting paradox. The power of letting go. Give students the chance to fail. Do not get involved immediately, even when you see someone heading down the wrong path. A teacher does not always have to be giving instructions. He sees it as a challenge for any lecturer to let go of that tendency. Switching up your repertoire.

As a teacher, Loohuis like to bring up points of attention. For example, he cherishes the close relationships that the university maintains with the region, but also believes there is still a lot more to be gained from those connections. He thinks education can play a much bigger role as a driving force in the region, from which new opportunities for research and collaboration will arise. His efforts have earned him the BMS Faculty’s External Affairs Award, presented by Theo Toonen (Dean BMS). He describes receiving that award as an honour.

Although Loohuis appreciates it when lecturers strive to incorporate the field of practice into their education as much as possible, he cannot separate that practice from a solid theoretical foundation. After all, all theory was practice at some point. In his eyes, theory and practice do not represent two separate worlds. Nowhere is that more clear than in the field of education. If we go through life without theory, we would have to reinvent everything all over again every single day because we would be living with propositions. How do you approach someone without theory? He believes trust - a theoretical construct - plays a huge role in this.

Loohuis’s passion stems from the fact that students will have to conquer themselves during their dynamic learning process. Learning from each other and taking responsibility for the process and the result. That is the freedom and responsibility you want students to have. Ask the students questions instead of the other way around. Let students look for examples to get to the bottom of a problem. It is at those times - when theory and practice come together - that Loohuis loves his job the most. He believes those are the times when students’ eyes are opened, allowing them to see things in a new light and change matters in that context with the help of theory.

However, Loohuis has no doubt that the lecturer’s role is changing - although ‘change’ may not be the right word. Instead, he refers to a variety of roles. One moment, a lecturer’s role is that of a partner. The next moment, they are more of an authority. That more traditional role should not be pushed aside. Loohuis believes that if that conviction - a lecturer being able to play multiple roles - is held at every layer of the university, it creates a solid foundation for top-quality university education.

The innovation of education and the role that the teacher plays in this process is therefore a development that fascinates Loohuis. To him, innovation does not necessarily mean something is not going well. Instead, it is more about the question of what type of students a university wants to produce. He believes that question should always be asked first before you begin the process of innovation. After all, change is not always a good thing, especially when it happens too often and even more so when changes are made for their own sake. If they are being flooded with new terminologies pertaining to innovations, chances are that lecturers will jump ship. That is the message he wants to impart on the UT's change strategists, especially when it comes to a comprehensive development such as Shaping 2030, the UT's vision and strategy. •

Photo: Rikkert Harink

SWIMMING

The temperature didn't help, of course, and the obligation to register in advance creates a barrier, but it was rarely this quiet in the outdoor pool on campus. You won't hear the real water rats complaining about it. No hassle with amateurs, who prefer to paddle, do a little bomb, or occupy the sunbathing areas to catch the first rays of sunshine. The outdoor pool is how many feel in corona time: lonely. But at the same time, with that budding green in the background, also hopeful. It will get better, and busier. Just wait and see.•

Text:
Michaela Nesvarova

Illustrations:
Enith Vlooswijk

CONNECTION **LOST**

FACES POP UP ON YOUR SCREEN. LIPS START MOVING AND SOMEONE SHOUTS ‘YOU ARE STILL MUTED’. YOU KNOW THE DRILL. THE MEETING COMMENCES, INFORMATION GETS EXCHANGED, EVEN A FEW JOKES ARE MADE, BUT WE ALL FEEL IT. THERE IS A CERTAIN DISCONNECT IN THIS DIGITAL WORLD. IS THERE ANYTHING WE CAN DO TO BRIDGE THE GAP? UT EXPERTS DISCUSS WHY THERE IS SUCH A DIFFERENCE BETWEEN COMMUNICATING ONLINE AND IN PERSON.

'We save energy for people that we can see and feel'

In the past year, we have proven that we can work and communicate (only) digitally. We videocall, we discuss, we get the job done. So what doesn't get across the internet connection?
'If we think of communication, we think of talking,' says Arbo Unie occupational consultant Suzanne Tijssen. 'The words we say are still the same, but words are just a small part of communication. Seeing, feeling and connecting with each other emotionally, seeing what the others are doing, their eyes, the complete picture: that is what communication is about. This biggest part of communication is lost in the digital world.'

SOCIAL PRESENCE

We need more than high resolution picture and sound quality to compensate for the lack of social cues, adds Jan van Erp, UT professor of Tangible User Interaction. 'We can see each other, hear each other, but in real life we have much more sensory modalities that we use to communicate than only vision and audition. People nowadays talk of skin hunger, our inherited longing for human touch, but it is about more than that. When talking online, we only see each other's head and shoulders. We miss a lot of body language which we'd normally have if we were sitting in the same room. Because of that, we don't really feel socially present. Although we are communicating, I don't feel that you are socially close to me. Which would become even more difficult if more people join the meeting.'

'Especially the group conversations are really difficult now,' agrees Alexander van Deursen, UT professor of Communication Science. 'Being in a group chat or talking to someone online can never replace face to face communication. Yes, digital meetings are mostly faster and more efficient, but the feeling of presence is much larger in personal meetings, the feeling that you matter and that people value what you say. That is also one of the reasons why the digital meetings don't last as long - people are less inclined to raise their hands. People have to unmute, raise their hands and be asked to speak. The threshold is much larger.' so we always stay one step ahead of them.'

EXTRA ENERGY

Gertrude Agterhuis, Arbo Unie occupational consultant who regularly works at the UT, sees another possible reason why our online gatherings tend to be shorter – and more intense. 'In online meetings we plan the things we want to say, we use the agenda and we are very straightforward. Meanwhile we are disturbed by a lot of things: seeing yourself on camera, looking at small faces, observing emotional reactions - it's very tiring to really see what is going on. As social beings, we want to connect but it can be a burden to do this online. This takes a lot of extra energy.'

The constant use of technology has not only led to new patterns of communication, but for many people it has also caused feelings of social and professional isolation, warns Alexander van Deursen. 'The social isolation can be really strong and it negatively impacts our wellbeing. Even if you do your work more effectively, your well-being might decline. This is of course very personal, but in general a lot of people struggle. Feeling disconnected brings on a lot of uncertainties; and people's wellbeing partly depends on uncertainty reduction.'

LOST RELATIONSHIPS

This disconnect can stem from overall changes in work duties, as many jobs undergo a major transformation due to the pandemic, but there seems to be one underlying issue: the aforementioned lack of social presence. As Susanne Tijssen points out, according to the self-determination theory, a theory of human motivation and personality, all human beings are driven by three basic psychological needs: autonomy (the need to feel ownership of one's behavior), competence (the need to grow and develop), and relatedness (the need to feel connected to others).

'And it is the last aspect – relationships - that has drastically changed recently,' thinks Tijssen. 'Some people are very happy with the current situation, but most people really miss their colleagues. They get energy from other people. The main issue is losing connection with other people.' How to fix that? 'That is a big question,' adds Tijssen. 'Maybe it starts with realizing that the current situation isn't optimal for everyone and needs to be addressed.'

Professor Van Deursen doesn't see a solution to the issue either, at least not as long as the lockdown continues. 'The main thing that influenced how we communicate is having to work from home. The enforcement to work from home applies to everybody. That is completely different from the situation we had prior to corona, because then working from home was a choice. There is a major difference between working from home and being forced to be at home while trying to work. We have video and we can see each other, but we do not look each other in the eye and it is relatively difficult to assess what the other is thinking. However, it is the best option we have at the moment. Maybe in the future we would have holograms sitting in a chair next to you. This would increase the feeling of presence'.

ROBOTS TO THE RESCUE

Interestingly enough, that is almost precisely what professor Jan van Erp is working on – and what could be an answer to our digital problems if another lockdown strikes in the future. 'There are technologies we are working on in my department. One is seeing if we can add other modalities to vision and audition, like the sense of touch and smell. And one – even more exciting one – is to get away from the flat screen,' says Van Erp. 'We are co-developing an avatar system that can transport human presence to a remote location in real time. Imagine a humanoid robot that you fully control from wherever you are. You essentially become the robot and it copies what you are doing, all your motions and facial expressions. To ensure that you feel as if you are interacting with a person and not a robot, one of our ideas is to project the person's face onto the robot's head. You would hear my voice, you'd see the robot move the way I move. So hopefully you would really see me through the robotic avatar.'

Even though it will not help us during the current corona crisis, this technology is further than you might expect. 'We are about half way there,' says Van Erp. Within a consortium, the UT scientist and his group are working on an avatar system that should be ready to be presented in 2022. 'This avatar system has arms and hands comparable to human skills. In the end it should also project smells, the temperature, the video and audio, so you really immerse yourself in the remote environment. It is the ultimate 'beam me up, Scotty' idea. From your office or home you can go anywhere in the world and socially interact. There is no barrier of distance and time anymore. That is the ultimate digital communication.'

Eventually, we might be able to use technology to replicate (most of) social interaction in a digital form, but none of the experts believe we will ever be able to replace it. As Jan van Erp says, 'we are inherently social animals. Social communication is high wired into our body and the sense of community is built through physical contact.' We need to connect; and not only to Wi-Fi. •

EXPERTS WHO CONTRIBUTED TO THE ARTICLE:

Jan van Erp, UT professor of Tangible User Interaction at the Human Media Interaction group and principal scientist with The Netherlands Organization for Applied Scientific Research TNO

Alexander van Deursen, UT professor of Communication Science

Susanne Tijssen & Gertrude Agterhuis, occupational consultants with Arbo Unie, involved in the UT work groups on wellbeing

Photo: Rikkert Harink
Text: Wiendelt Steenbergen

WHEEL OF **THE YEAR**

If someone starts talking to you about the wheel of the year, they are a modern-day witch, a practitioner of wicca, a follower of a form of modern Celtic paganism - or someone from the University of Twente. Only a select few think in wheels of the year and no other university has one. “Wheel of the year” sounds organic, regular and peaceful. It brings to mind an eternally repeating cycle of growth, bloom, decay and silence. It sounds like nature itself which goes through all these stages with constant chances in tempo or like a tango that sweeps you along in quadruple time.

You probably know that real life is nothing like this. At the university, all four seasons happen at once. The rhythm of the university is like the quadruple time of a military march or even a seven-eighth time. Listen to Pink Floyd’s Money and you will hear a rhythm in which the measure is not finished, where the next episode begins before the last one ends and before you even have a chance to catch your breath. The resit of a course is barely over before you are expected to start discussing the next iteration. The need to find new funding starts weighing on your mind before your current project is well and truly under way.

But that time of silence, that university winter, isn’t that what summer recess is for? A time to go on holiday for a few weeks and do the things at university that you otherwise have no time for: reading, thinking, developing ideas, talking to colleagues. We don’t get summer recess like that. You have to start preparing your classes or encounter a summer activity that you cannot turn down. Perhaps you have just come back from holiday and now have to race to finish your project proposal before the September deadline.

It must be possible to take a break and catch our collective breath by tacking on a few weeks. If you think that cannot be done, just look at other universities in Germany, Belgium and the United Kingdom. They’ve all managed it somehow. They have adopted the leisurely quintuple time. Listen to the opening measures of White Room by Cream and you can hear it for yourself: the postponed next measure. If the wheel of the year is a pie, let’s divide it into five equal pieces: four for the students and one for ourselves. •

Wiendelt Steenbergen
Professor of Biomedical Photonic Imaging

Photo: Rikkert Harink
Text: Jelle Posthuma

FROM HOUSEMATE **TO COLLEAGUE**

THEY STUDIED IN TWENTE TOGETHER, LIVED IN THE SAME STUDENT HOUSE AND WERE BOTH ELECTED AS MAYOR AT ALMOST THE SAME TIME IN THE AUTUMN OF 2020. UT ALUMNI DANNY DE VRIES (47) AND MARLEEN SANDERSE (44) TALK ABOUT THEIR STUDENT YEARS IN ENSCHEDE AND WHAT IT'S LIKE TO BE MAYOR.

A car slowly drives onto the old market square in Hattem. The driver rolls down their window. 'Good day, madam mayor,' Danny de Vries says from behind the wheel. 'Good day, mister mayor.' Marleen Sanderse replies. The door opens and De Vries gets out. He is carrying a white briefcase that contains the chain of office of Oudewater. 'Why don't you get yours out too,' De Vries says. After some hesitation, Sanderse retrieves her silver chain from the Hattem's municipal hall.

The scene in the historical centre of town has attracted a small crowd of onlookers. An elderly couple watches the two mayors admire each other's chains of office. This is the first time in a long while that Sanderse and De Vries have met. It is a meeting between two mayors, both of whom took office in the autumn of last year. At the same time, it is a reunion between two former housemates. 'From housemate to colleague,' Sanderse jests. 'It is truly unique to be meeting again like this.'

TWENTE

The shared history of the two colleagues begins in Enschede in the early nineties - at Europalaan 294, to be exact. De Vries came to Twente from the Randstad to study Applied Communication Science. Together with a friend, he moved into an apartment on the Europalaan. They were looking for a third housemate and Marleen Sanderse made the cut. She was just starting her Public Administration studies at the UT. 'The apartment on the Europalaan was not exactly ideal as a student accommodation,' Sanderse recalls. 'It was located very far away from the centre of town and there was no shared living room.' De Vries picks up the tale. 'I remember you had the best room. Mine only had a bed and a kind of garden table in it,' he laughs.

Sanderse and De Vries did not live together for very long; around Christmas time, both moved to different accommodations in Enschede. The two future colleagues dove head first into the student life. De Vries joined Taste, lived in the well-known student accommodation Asgard and was a member of the Ius Sanctus society. 'I actually had no intention of joining up. However, I was quickly persuaded during the Kick-In. I never regretted it for a second. It was truly an incredible time.' Sanderse concurs. She joined rowing club Euros. 'I loved being a member of the rowing club. I was very active in it.'

'Enschede is a fairly compact student town,' Sanderse continues. 'That's what makes it fun. On top of that, the university itself is truly unique.' De Vries agrees wholeheartedly. 'I couldn't be happier about my choice to come to Enschede. The rest of my peers from secondary school all stuck around in the Randstad. My time in Twente, where I ended up living for nearly twenty-three years, has broadened my perspective on the Netherlands. There is a lot more to our country than Amsterdam alone. I can certainly understand the discussion between the city and the country. People from Limburg or Groningen sometimes feel neglected by the people in The Hague.'

CORONA CRISIS

Sanderse occasionally thinks back on her student years, such as when she joined 'the class' - a type of training programme for new mayors. 'We discuss public order and security, among other things. What is the basis for our authorities? That took me right back to Mrs Dorbeck-Jung's lectures. She taught General Principles of Law, if I recall correctly.' De Vries, who studied communication, joins in. 'I believe circa eighty percent of being a mayor has to do with communication. How do you communicate from your role as mayor? What themes do you choose? How do you deal with the entrepreneurs in your municipality?'

The latter is an important topic, especially in times of crisis. Sanderse and De Vries both began their term as mayor in the autumn of 2020. Thus far, their mayorship has coincided entirely with the coronavirus pandemic. 'I have yet to have a normal day,' Sanderse sighs. 'As the new mayor, you want to cheer on your local soccer club, visit the elderly in their care home, you name it. The coronavirus has made all that impossible. Nevertheless, I try to keep in touch with people as much as possible. With the entrepreneurs in the city, for example. You talk about your own difficulties as well, because some measures are hard to explain. I believe that is the only way.'

De Vries nods. 'I have been an entrepreneur myself for a long time, which certainly helps. Just last year, I was selling local products from Twente in the Markthal in Rotterdam. The coronavirus has made things a lot harder for entrepreneurs in the Markthal. The nature of the projects that my communication agency works on has also changed. That is why I tell entrepreneurs in Oudewater that I see and feel their pain. Together, we try to focus on what is possible, rather than on what isn't. If we cannot get something done one way, we'll try another. I believe this approach has made it easier for entrepreneurs to accept our decisions.'

FIREWORKS DISASTER

If you cannot get what you want, you'll have to make do with what you have. That has been De Vries's belief since the fireworks disaster in Enschede. As a student, he recorded the explosions in fireworks factory S.E. Fireworks from up close. The footage was shown all over the world. De Vries lost his colleague and friend Marcel van Nieuwenhoven in the disaster and found himself unable to resume his studies for a long time afterwards. 'My life changed on 13 May, the day of the fireworks disaster. Things could have gone quite differently. Since then, I view every single day as a gift. On that day, I learned that life is too short to sit still. That is why I try to focus on the positive as much as possible in my role as mayor during the corona crisis.'

De Vries calls his mayorship the best job he has ever had. However, he does not have his entire political career mapped out already. As a journalist and entrepreneur, he wanted to remain neutral above all and avoid leaning too strongly towards either side of the political spectrum. 'I have always had some interest in politics, but it wasn't until about four years ago that I became an active member of the CDA. The crazy thing is that I once again have to hide my political orientation a bit now that I am mayor. I am expected to stand above the various parties, after all.' Sanderse nods. 'This was the first year that I did not put up an election poster in my window. It felt odd, I used to love campaigning.'

PUBLIC ADMINISTRATION

Sanderse's political career began in the municipality of Naarden, where she held a seat on the municipal council for the CDA. 'That makes us housemates, colleagues and members of the same party,' she laughs. In Naarden, Sanderse served as municipal council member, chairwoman and alderwoman. In 2019, she joined the provincial council of North Holland. 'I have always had an affinity with public administration,' Sanderse says. 'That's also why I decided to study Public Administration in Twente. It runs in my family, too: my grandfather and my father spent years on the municipal council of the Noordoostpolder.'

In early 2020, Sanderse applied for the position of mayor of Hattem. 'When we drove home after the interview, I said to my husband how amazing it would be if I could become mayor there.' A few months later, her son Pieter placed the chain of office around her neck. 'Because of the coronavirus, it was a small ceremony. It was a truly precious moment for me. I had to pinch myself. Is this really happening?'

A sound echoes through the open window of the mayor's office. The bell of the Andreaskerk on Hattem's town square is striking two o'clock. Although the colleagues still have much to talk about, it is time for the next appointment. 'It's remarkable that we have been through the exact same things this past year,' De Vries concludes. 'In two similar towns, to boot.' Sanderse agrees. 'We should sit down together more often, Danny. You can teach me about communication and I can tell you more about municipal politics.' De Vries laughs. 'As soon as your cafés are open again, I will come visit you again here in Hattem.' •

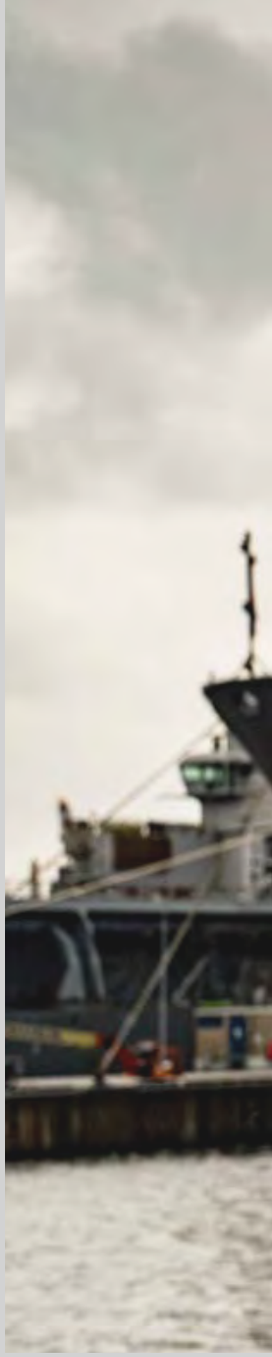
'I have always had some interest in politics'

MARLEEN SANDERSE
Sanderse studied Public Administration at the UT. Shortly after graduating, she lost her left leg due to a malignant tumour in her hip. After her recovery, she came into contact with the national rowing team. She competed in the 2008 Paralympic Games in Beijing. She began her career as a civil servant in 1999 as a government trainee at the former Ministry of Agriculture. Later on, she was a government official at the municipality of Almere. In 2011, she joined the municipal council of Naarden, where she later became a chairwoman and alderwoman. She then moved on to join the provincial council of North Holland. Sanderse was sworn in as mayor of Hattem on 18 September 2020. •

DANNY DE VRIES
De Vries graduated from the UT in 2002 in the field of Risk and Crisis Communication. Since 2005, he served as director of strategy consultancy firm Albers De Vries and, from 2015, as director of the Twente Embassies. Before this, he spent years working as a radio, TV and newspaper journalist.
He gained national fame with his footage of the fireworks disaster on 13 May 2000. De Vries was made a Knight in the Order of Orange-Naussau in 2018 for his role in the fireworks disaster, his dedication to Twente, the royal house and LGBTIQ+ emancipation. He was sworn in as mayor of Oudewater on Monday 16 November 2020. •

Photo: Ivar Pel
Text: Rense Kuipers

MAINTENANCE AMONG **THE MARINES**



WHEN UT DOCTORAL CANDIDATE LUC KEIZERS IS 'OUT OF OFFICE,' YOU CAN FIND HIM AT THE ROYAL NAVY BASE IN DEN HELDER. HIS RESEARCH INTO 'PREDICTIVE MAINTENANCE' INVOLVES THE SHIPS THAT ARE ANCHORED THERE, AS WELL AS THE ONES OUT PATROLLING THE SEVEN SEAS. 'WALKING AROUND THE BASE MAKES MY RESEARCH FEEL MORE REAL.'

'You walk past the frigates, surrounded by military personnel in uniform. It is fascinating to watch them try to make the world a slightly better place. Still, I do spend most of my time in an office,' says the PhD candidate of Engineering Technology's Dynamics Based Maintenance department.

With his research project, Keizers contributes to the Royal Navy's PrimaVera project, which stands for 'Predictive maintenance for Very effective asset management.' As part of this project, the UT collaborates with various other educational institutions, businesses and organisations on predictive maintenance. 'I think many businesses and organisations still view maintenance like a bothersome cost item,' he says. 'Things breaking down is simply a fact of life. However, maintenance is often conducted either way in advance or only after something has already broken down. That leads to higher costs. Meanwhile, businesses prefer to spend their money on developing an amazing new concept, for example, rather than a new maintenance strategy. However, investing in proper maintenance can actually help you save so much money in the long run that you have even more to spend on the development of those new concepts.'

Those savings are mainly realised through maintenance that is conducted at exactly the right moment. This is also known as just-in-time maintenance. 'Methods designed to realise that situation are usually based on either data or physics,' he explains. However, Keizers knows that both approaches have their shortcomings. 'Physical models are plagued by uncertainties. They are based on tests conducted in a laboratory environment. Even with constant environmental factors, there are variations in the degradation profiles of such components. When conducting a laboratory test, you also know exactly what kind of strain you are subjecting your material to. Real life is never that controlled, which is certainly true for naval ships.'

The data-driven methods present a different challenge. 'What it comes down to is gathering a wealth of data and using those to identify trends and predict when something will break down. The major problem is that there is simply a lack of data on component breakdowns. The whole point is that you want to conduct timely maintenance on the most critical components - for which accurate predictions would be most profitable - because a breakdown is costly or catastrophic,' Keizers explains.

In his research, he therefore combines the physics with the data. 'I use a physical model as the basis for an algorithm, which I try to make increasingly effective and more accurate with the help of data. The goal is to allow the algorithm to learn as it goes,' Keizers continues. When circumstances change, that increases the stakes. Not all waters are calm and not all exercises are as intense as others. 'You can extrapolate a current data trend to the future, but if your current usage profile is not representative, you will end up with an inaccurate prediction,' Keizers says. All the more reason for him to leave the laboratory from time to time. 'I hope to build a bridge between the largely theoretical world of academia and the practical concerns of the industry.'

The doctoral candidate knows that this will be no mean feat. Data alone will not be enough. 'Entrepreneur and best-selling author Chris Anderson once wrote that data will make the theoretical sciences superfluous. For me, it is more about bringing the two worlds together. I believe there are myriad benefits to combining physics with data. The physics can shed more light onto why a data trend looks the way it does.' •

Photo: Rikkert Harink
Text: Michaela Nesvarova

THE OPEN ARENA OF PHOTONICS

'I WANTED TO CREATE MY OWN DESTINY,' SAYS UT ALUMNUS ALBERT HASPER. 'I HAD THE CHOICE TO STAY WITH A BIG COMPANY OR TO BUILD SOMETHING FROM THE GROUND UP.' IN 2018, HE CHOSE THE LATTER. TOGETHER WITH ANOTHER UT GRADUATE JOOST VAN KERKHOF, HE FOUNDED PHIX, START-UP FOCUSED ON PHOTONICS ASSEMBLY BASED IN THE HIGH TECH FACTORY ON CAMPUS.

PHIX specializes in designing and producing packaging for photonic integrated circuits, chips in which photons are the carriers of data and energy. Such chips have potential applications in countless areas, including biosensors for virus detection, LIDAR systems in self-driving vehicles and antennas transmitting 5G signal. However, as the start-up's CEO points out, photonics is such a new industry that all the possible applications are not even known yet. 'It's a completely new technology. It will open doors that are still closed now,' says Hasper. Other businesses and institutes seem to agree. PHIX currently has over 150 customers, including the University of Twente. 'Photonics is quite hot. Many companies are starting to use it.'

FROM ONE SPIN-OFF TO ANOTHER

Seeing this development, the two founders decided to take technology developed at UT spin-off LioniX International, where Van Kerkhof worked, and enter the market with PHIX, a separate business focused primarily on one part of the photonics production: the packaging. 'Unlike with semiconducting chips, the price of photonic chips is mostly determined by the packaging. That is the biggest cost,' says Hasper. 'We don't have one specific product. We help our customers develop packaging suited to their needs. This process is rather complex. Photonic chips are not just connected with wires, they need to be interfaced with other components, such as optical fibers, free space optical components and electronics, before they can find their way into your product. Plus, there are usually multiple chips in one package and they need to be perfectly aligned. All of this needs to be extremely accurate.'

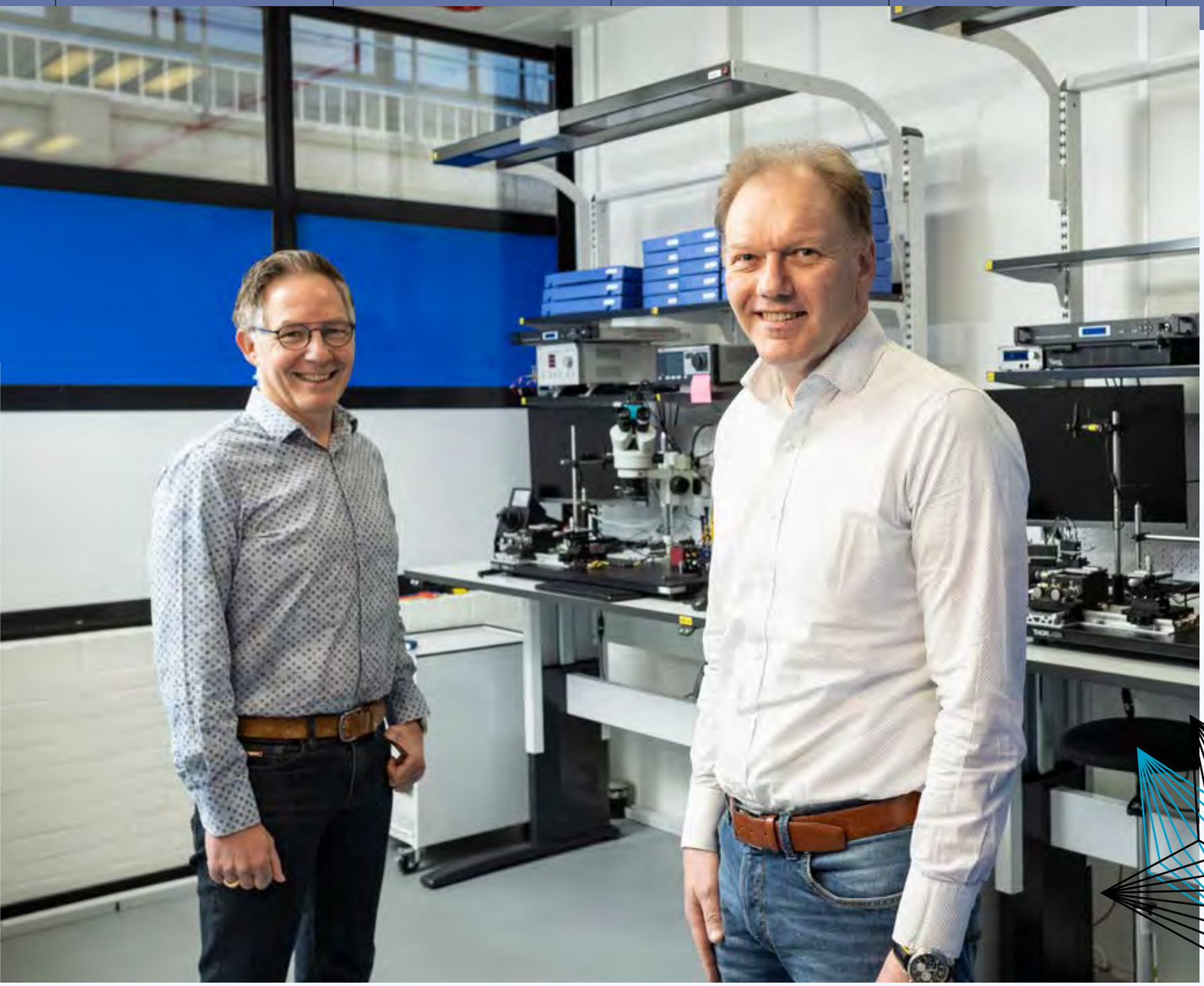
UNPREDICTABLE

As the CEO says, PHIX currently offers custom-made solutions to its clients, but it aims to move towards automation and producing large volumes of chips. 'We are on the right track and we expect to move to larger facilities in one or one and half years. But: forecasting developments of this market is very difficult. The photonics industry is still developing.'

Did that make it difficult to take the step and start a new company? 'It was a risk, of course,' answers Hasper. 'Most start-ups don't make it, right? But there is a lot of knowledge and support in the region to make sure it's successful. Also, the risk and the unpredictability is what makes it attractive for me. I always worked in a corporate world where things moved very slowly. I wanted to be more independent and accelerate the development of this industry.'

KEEPING IT LOCAL

'The ultimate dream is of course to grow PHIX into a large company with a few hundred employees and millions of euros in turnover,' adds the UT alumnus. 'However, our main ambition is to advance the technology and the whole industry, to find applications that aren't even on the radar yet and – most of all – to keep the technology



▲ Joost van Kerkhof (on the left) and Albert Hasper (on the right)

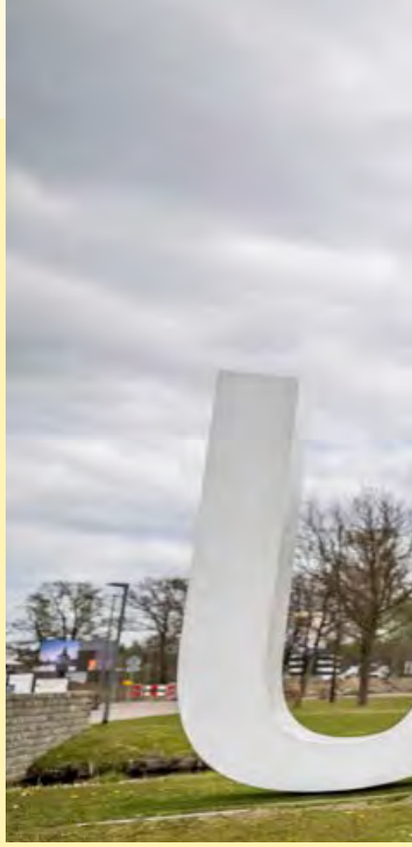
here. We have international ambitions, more than half of our twenty employees come from abroad, but we want to keep the knowhow here, not move it to Asia, for example. We want to develop new technology here in the Netherlands, in Europe, and keep it here. Our roots are in Twente and it would be nice to create jobs in the region.'

Despite the corona crisis, PHIX is still following the plan set up by Hasper and Van Kerkhof three years ago. 'Covid has had effect on our operation, on how we use our facilities, but luckily not on the business itself,' says the CEO. 'As a start-up, we are halfway our journey, but we are confident that, one day soon, we can scale up and start producing millions of photonics chips and packages. For which specific applications? We want to cover the whole market, but the market is still unknown to everybody. Photonics is an open arena and that makes it very exciting.' •

ALBERT HASPER
Albert Hasper, Chief Executive Officer of PHIX, has a Master (1986) and PhD Degree (1992) in Electrical Engineering from the University of Twente. Before co-founding PHIX, he worked as an operational and technical executive in international high-tech business-to-business industry. He was the VP of Global Operations at ASM International, General Manager of Tempress Systems B.V. and the Managing Director of the Amtech Solar Companies, to name a few of his roles. •

JOOST VAN KERKHOF
Joost van Kerkhof, Chief Operations Officer of PHIX, also holds a Master as well as a PhD Degree (1994) in Electrical Engineering from the UT. Prior to starting PHIX, he worked as CEO of XiO Photonics and later on as Chief Operations Officer of LioniX International. •

Photo: Rikkert Harink
Text: Rense Kuipers



CYCLIST AND ITC STUDENT GOSSE VAN DER MEER

‘IT TAKES HARD WORK, BUT I AM LIVING MY DREAM’

WAKING UP, EATING, CYCLING, EATING, RESTING, CYCLING, EATING, STUDYING AND SLEEPING. THAT IS WHAT THE AVERAGE DAY LOOKS LIKE FOR GOSSE VAN DER MEER, PROFESSIONAL CYCLO-CROSS RIDER AND SPATIAL ENGINEERING MASTER’S STUDENT AT THE ITC FACULTY.

If it hadn’t been for the pandemic, Gosse van der Meer (25) probably would not have been a UT student. Whereas the crisis closed a lot of doors for most students, it actually opened one for Van der Meer. He obtained his bachelor’s degree in Geography, Planning and Environment from Radboud University last year. The corona crisis also meant many cycling competitions had to be cancelled. ‘Precisely because so much education was made available online, I began looking at master’s programmes. I found one to my liking here in Enschede. The crisis has given me a lot more flexibility. That is good, because I still have to train for about twenty-five hours a week.’

It should be clear: Van der Meer’s student life is not like that of the average student. His sports career takes precedence. ‘I am only doing this for fun,’ he says repeatedly. ‘Still,’ he hastens to add, ‘I passed all my master’s subjects the first time around.’
An introduction? Never been to one. A student card? He doesn’t have one. The ITC building? Only stepped inside a few times so far. ‘My life is the polar opposite of that of my fellow students, especially at ITC. Many of them have a scholarship, they are living far away from home... The pressure is on for them. I have none of that, I am only doing this to satisfy a personal interest. I would go crazy if my entire life revolved around cycling.’

MAPS

During his bachelor’s, he developed a passion for cartography. ‘I always loved drawing maps. Programming, too. I can lose myself for hours on end in GIS software. I absolutely love it.’ Yet Van der Meer knows that studying for top athletes is about making compromises. When you focus on one, the other has to be put on the back burner. ‘I make clear agreements with the people in my programme and I have my own personal study plan. I am an outspoken student and I know exactly what I want. That also means I have to be self-reliant and bring enough discipline to the table. When working on projects in a group, I cannot hang my fellow students out to dry. I do my part late in the evening, though.’

The life of a top athlete can be a lonely one. That is doubly true for the UT student, the only cyclist in his team. A few years ago, he was part of a team of mostly road cyclists as a cyclo-cross rider and mountain biker. ‘Those guys knew every street and every cobblestone in Flanders. Lining up at the same starting line in some forsaken little town year in and year out just wasn’t for me. I much prefer to travel the world, instead of racing through the same Belgian mud over and over again.’ This free-spirited lifestyle suits him far better. He makes

his own plans with his own group of sponsors and his own team. 'I knew early on that I will never win multiple world championship titles. It has always been my goal to win a professional competition. I would much rather be a good B-level rider than a faceless nobody in the highest league. I'd rather have more fun and less money than vice versa.'

ALL AROUND THE WORLD

Thus far, that attitude has worked out well for him. Organisations from all over the world - from Australia to Switzerland and from the United States to Mongolia - are reaching out to him. 'I've been everywhere. In Romania, where I was taking part in a race across a landfill, I was asked to come a day early to train with the local youths. I jump at chances like that. It is all about your attitude. I don't want people to look up to me, but I am not blind to the fact that mine is a privileged position. I want to use that to help others. It takes hard work and I spend much of my time alone, but I am living my dream. I can do whatever I want.'

He is glad to be able to combine his sports career with his studies. 'It helps me broaden my perspective on the world. I am always riding on some mountain or other and I am truly fascinated by the engineering aspects of my studies. That's why I am interested in rescue operations. One time while mountain biking, during an incredibly long descent, I saw brake marks leading up to the edge of a cliff. Together with five others, I got off my bike to search. In mountain biking, your behaviour is more important than your results. Especially in situations like that.'

He has already fulfilled his youthful dream of winning a professional competition - three times, in fact. On top of that, he has won seventy other events. In the years to come, Van der Meer hopes to obtain even more victories, preferably in incredibly remote locations. Another free tip for his fellow students for the world of cycling: 'If you did everything you could and still come in second, that simply means the other person was better. However, if you are the one who messed up, you have only yourself to blame. In that sense, taking an exam is no different than competing in a race, is it?' •

UT'ERS ON THE MOVE

2017

GERALD MUNTERS
PSTS`17

Gerald Munters has been working as an innovation advisor at the Dutch Tax and Customs Administration (Belastingdienst) from 1 February 2021. In this role, he can get started with technological innovations and experiments. Gerald previously worked at various positions at VIVAT for more than three years. •

2012

AMIR DAVIJANI
ME'12

In March 2021, Amir Davijani became Senior Innovation Scientist at Beyond Meat in LA, a company that produces meat substitutes and has recently been named as one of the 100 most influential companies by TIME. After his master's degree at the UT, Amir completed a PhD at the Georgia Institute of Technology, after which he worked as a scientist at Bolt Threads. •

2012

JOSINE VERHAGEN
PHD'12

Josine Verhagen has recently started working as Lead Data Scientist for the Center for Innovation at McGraw Hill in California. There she helps with the design and development of a comprehensive student profile that can assist students during their studies. After her PhD, Josine first worked for a while at the University of Amsterdam and then for seven years at Kidaptive, where she held several positions, including that of Senior Director Psychometrics and Data Science. •

2011

BOB SCHUTTE
BA'11

Bob Schutte has been working as a Senior Inspector at Customs (Douane) since March 2021, where he is engaged in tracing goods of strategic importance to the Netherlands, or dual-use goods. With this new position, Bob concluded not only his period as an analyst at ABN AMRO, but also his chairmanship at the Young Alumni Network of the University of Twente. •

2006

LISANNE TOETER
CE'06

Lisanne Toeter has worked in Belgium for the past two and a half years as Principal Process Safety Management Expert at Johnson & Johnson. Before that she'd worked at Shell and also at Kriya Materials. As of February 2021, Lisanne is working in the Netherlands again; now as a Product Safety Engineer at ASML. •

1995

SANDRA KONINGS
AM'95

Sandra Konings started as Global Chief Information Security Officer at Arcadis in February. She is responsible for the cyber security of Arcadis around the world. Sandra is no stranger to the role of Chief Information Security Officer; she previously held this position at ASML, DLL and Rabobank. •

1993

JEANNINE PEEK
TBK'93

As of March 2021, Jeannine Peek holds the position of General Manager at BU Capgemini Nederland. In this role, she speaks to companies on a daily basis about the challenges they have in the digital field and supports them in innovation. Jeannine previously worked as General Manager at Dell Technologies Netherlands, Unique and Content Uitzendbureau, among others. •

1987

STELLA KUIN
TO'87

Stella Kuin has held various positions in the field of ICT in recent years. She was head of IT development at Wehkamp, head of IT department at the Tax and Customs Administration, director of the Institute for ICT at Hogeschool Utrecht and CIO at Kadaster. She even received the Award for IT Co-creation for the latter position. In March 2021 Stella started a new position: she is now Senior IT Manager at Achmea. •

Photo: Hans Dekker

ALUMNI TALKS 2021 **SEE THE FUTURE**

THEY ARE A 'LEGO BRICK MASTER', A PAINTER AND A JOURNALIST AND THEY ARE COMING TO THE UT. OR RATHER, THEY ARE RETURNING TO THE UT, THE PLACE WHERE THEY ALL STUDIED. ON OCTOBER 1, THESE THREE SPEAKERS WILL TAKE THE STAGE OF THE AMPHITHEATER DURING THE ALUMNI TALKS 2021.

How did Jonathan Bennink, Peter Riezebos and Martha Riemsma get to where they are now? What has been their career path and what is their outlook on the future? During the Alumni Talks 2021, these three alumni will speak about this in front of a live audience in the Vrijhof.

The first speaker is Martha Riemsma, editor-in-chief of Tubantia and regular guest at the Media Forum of the Spraakmakers program on NPO-Radio 1. Martha studied Applied Communication Sciences at the UT from 1998 to 2000. As editor-in-chief she sees it as her mission to lead journalism into a new era. In collaboration with the UT, she recently organized 'Van Torentje naar Torentje', an interview series with leaders of political parties.

You probably know the second speaker from television. Jonathan Bennink acts as 'Brick master' in the LEGO Masters program. He studied Industrial Design at the UT from 2003 to 2010 and already then he had the dream to work at LEGO. He sent an extensive open application, in which he presented an idea where you could play a video game with technology in LEGO blocks. He was hired and now, in addition to his jury role at LEGO Masters, works as Lead Designer at LEGO Creative Play Lab in Denmark.

The last speaker is artist, writer and scientist Peter Riezebos. Peter studied Psychology, Communication Sciences and Philosophy at the UT between 2006 and 2014. Since his early childhood, he has translated all his experiences with depression, Asperger's and ADHD into paintings, drawings and poems. Peter created a furore with his painting in the neo-expressionist style and his work can now be found in galleries around the world.

The Alumni Talks start at 3 p.m. in the Amphitheater of the Vrijhof. As usual, the afternoon will be closed with a nice drink in the Vestingbar! For more information and application go to https://www.utwente.nl/en/organisation/alumni/alumni-talks-2021/ •

ALUMNI EMAIL **NEW FEATURE!**

UT graduates now have the possibility of creating an alias for their utwente alumnus email address so if you're currently j.janssen24@alumnus.utwente.nl or j.janssen25@alumnus.utwente.nl this feature is for you! •

For more information visit:
https://alumniportal.utwente.nl/alias/aliasaanvraag/

TEAM UP FOR TALENT!

SUPPORT OUR ANNUAL CAMPAIGN 2021!

MORE THAN 250 DONORS CAME BEFORE YOU!

BREAST CANCER SCREENING
Prof. Chris de Korte is developing a rapid and painless screening method for breast cancer

GREEN TEAM TWENTE
Green Team Twente promotes the use of hydrogen as a sustainable fuel

KIPAJI SCHOLARSHIP
The Kipaji Scholarship Fund offers scholarships to students from developing countries

CAMPUS CARILLON
With technical innovations the Carillon can be preserved as a Campus icon

Read more on the website via [QR-code] or send a Tikkie straight away by scanning the QR codes in the pictures!

DONATING TO THE UNIVERSITY OF TWENTE

Even after you are gone, you can still have an impact on future generations of students at the University of Twente. With your bequest to the UT, new generations of students can develop themselves and our research can make a meaningful contribution to society. Are you thinking about including the UT in your will? We would be happy to discuss the possibilities with you. •

For more information, go to: www.utwente.nl/nl/ufonds/doneren/nalaten/

NSK TEAMS 2020

In September, D.A.V. Kronos organised the NSK Teams in the Fanny Blankers Koen Stadion in Hengelo. The corona measures imposed by the RIVM, the NOC-NSF and the UT were strict, but that didn't dampen the mood one bit - although it was difficult to maintain a safe distance at all times and refrain from cheering on the athletes. Despite the restrictions, a record number of 227 athletes from nine different university towns took part in the event. Enschede finished third in the city ranking. Unfortunately, the traditional afterparty had to be cancelled - for obvious reasons. •

TAKE ACTION!

The crowdfunding page www.steunutwente.nl lists various student and research projects that require funding. It is now also possible to set up your own crowdfunding for one of the projects. For example, assistant professor Sonia García Blanco ran a marathon and collected nearly €4,000 for research into a faster method for diagnosing cancer. •

Take action and help our researchers and students!

KIPAJI SCHOLARSHIP FUND

In February, Merhawi Gebrehiwet from Ethiopia arrived on campus. Since then, he has been enrolled in the Computer Science master's programme. He had wanted to come here years ago, but never had the financial means to do so. In June of 2020, he was informed that the university was offering him a UTS scholarship. That covers half his costs. The Kipaji Scholarship Fund, made possible by the alumni, staff and relations of the UT, offered him the other half. Even though he attends most of his lectures online, the first few months have been great for Merhawi. 'Here in Twente, I can focus entirely on my studies and my personal development. That would have been impossible back home.' •

CONCERT ON CAMPUS CARILLON

They had only been taking classes for three months, but six UT staff, students and alumni played the campus carillon during a Christmas concert on 13 December. No new people had been trained to play the carillon for a decade. A tradition was about to be lost. However, the tide was turned last year due to the enthusiasm of alumni Esther Schopman (TO'93) and Hylke Banning (EL'92) and with support from the University Fund and Vrijhof Cultuur. •

Contact:
Maurice Essers, director:
053 489 3993 or
m.l.g.essers@utwente.nl

DOUBLE INTERVIEW

Photo: Annabel Jeuring
Text: Susanne Geuze

‘WE DON’T ALL HAVE TO BE CAST **IN THE SAME MOULD ANYMORE’**

IN THIS SERIES OF STORIES, TWO UT COLLEAGUES INTERVIEW EACH OTHER. ABOUT THEIR WORK OR RESEARCH, BUT ALSO ABOUT EVERYDAY ACTIVITIES. WHAT CONNECTS THEM AND WHAT MAKES THEM DIFFERENT? AND WHAT CAN THEY LEARN FROM EACH OTHER? ELLEN GIEBELS (51), PROFESSOR IN THE DEPARTMENT OF PSYCHOLOGY OF CONFLICT, RISK & SAFETY, AND POST-DOC RESEARCHER TOM KAMPERMAN (32) ON MAKING A DIFFERENCE AND BRINGING INVENTIONS TO THE MARKET.

Tom: ‘Has a professor like you always been interested in academic research?’

Ellen: ‘Well, to be honest, in the beginning I thought the subject of psychology was pretty boring. Maybe because it mostly involved sitting in huge lecture halls. It was only in my third year that I had a professor who really sparked my interest. Evert van de Vliert, a researcher specialising in the field of conflict dynamics. Why do things get derailed so often? And how can you make the resolution process more effective? This is fun, I thought. From that time, I started to work a lot harder.’

Tom: ‘And that was the beginning of your academic career?’

Ellen: ‘Not right away. After I graduated, I worked in the business world, but I never really felt at home there. I missed the depth of conceptual thinking. Then Van de Vliert was looking for a PhD student and offered me a place on a great project. It was a project he was leading in collaboration with the social psychologist Carsten de Dreu, who received the Spinoza Prize in 2018 for his work. It all just fell into my lap! My doctoral research focussed on commercial mediation. But now you tell me, how did you get involved in academic research?’

Tom: ‘I didn’t know exactly what I wanted at first. I even wanted a career as a musician for a while. As things turned out, that has remained a hobby. In secondary school, I choose a combination of subjects that interested me: scientific subjects, including biology. In Twente I did my university degree, got my PhD, and then also did a research post-doc. Afterwards, I thought, I’ve been here now for thirteen years, maybe I ought to widen my horizons.’

Ellen: ‘And those “wider horizons” took you to Boston?’

Tom: ‘Yes, I applied for a Rubicon Grant to go to Harvard. A grant like that gives you the chance to work at a really excellent laboratory. I moved to Boston last January, but then the corona crisis hit and all the labs closed. I’m now working temporarily from the Netherlands due to the lockdown. Of course, I hope to go back as soon as possible.’

Ellen: ‘Just what kind of work are you doing in the US?’

Tom: ‘I am working on a project that combines human cells with hydrogel, a gel that contains water – like gelatine, for example. Hydrogel is a kind of injectable plaster; it stimulates body tissue. It has all sorts of things in it: growth factors, proteins, and so on. It is intended for cell-based therapies. Imagine that you have a large wound; in such cases, a combination of cells and biomaterials can offer great possibilities for healing.’

Ellen: ‘That sounds like a real innovation! Are you already working with patients?’

Tom: ‘No, not yet. We are doing animal trials, in vitro cultures and “organ on chip”, which means making cells and replicating organs outside the body with the aid of stem cells or a chip. This is a way to test the effects of medical procedures and medications on an organ without subjecting the patient to anything.’

Ellen: ‘Along with your research work you’re also an entrepreneur, aren’t you?’

Tom: 'That's right, I'm the co-founder of IamFluidics BV, a University of Twente spin-off. Microgel manufacturing techniques are also of interest to commercial enterprises. There are microparticles in clothing, shampoo – you name it.'

Ellen: 'Interesting substance. But it seems to me that the combination of working at a university and managing a company is not always easy.'

Tom: 'They are indeed two completely different worlds, but they actually stand to gain a lot from each other. In research, you are less constrained by time and money. You get time to explore something to the deepest level. But as entrepreneur, you have to achieve results quickly, otherwise your start-up won't survive. But these two extremes also complement each other quite well – and you get cross-fertilisation.

Tom: Don't you also have experience outside the academy?'

Ellen: 'I certainly do! For the police I studied hostage negotiations, following for example sieges and kidnappings; what is the smart thing to do in such situations, and what is counterproductive. Very little was known about such techniques at that point. If you know, then you can consciously change your strategy depending on who is sitting across the table from you. In that project, I developed a framework that we still use to advise police officers today. Work that is practically oriented is like a golden thread running through my academic career.'

Tom: 'What is it that attracts you?'

Ellen: 'I love puzzles. Literally – I put together jigsaw puzzles in my spare time – but also when it comes to people and conflicts. Many problematic situations can be overcome if you can figure out which piece is missing and where. Just look, for example, at witness protection, police questioning and disputes between neighbours. It's all about interactions between people, and how you can prevent things from going wrong.'

Tom: 'How do you think your field will change in the coming years?'

Ellen: 'I think that psychology and technology will work more and more closely together. We used to study groups of people working with observers looking at video images, keeping track of what we noticed stood out. But now, you have sensors that record the exact movement patterns of people within a certain area, and how they interact with each other. We learn a lot about group dynamics this way. New technologies therefore ensure a huge renewal of our field in terms of data. I see for both of us the need not to get stuck for too long in the theoretical aspects – the drive to see immediately applicable results.'

Tom: 'I certainly recognise that. Why is it so important for you?'

Ellen: 'I want to do something that really makes a difference. Pointless experiments ,that kind of research is not for me. The important factor is whether research results can contribute to or change actual practices. That goes much farther than publishing an article in an academic journal.'

Tom: 'That's right, publishing just to be published. Lots of research results just end up on the shelf after being published. For me, it's much more exciting and rewarding to valorise findings immediately and bring them to the market, which is something you can do by combining research and entrepreneurship.'

Ellen: 'Publishing a lot is also the safe route. If your goal is to become an academic, then that's the easiest way to get there. If you deviate from that path, you endanger your academic career.'

Tom: 'And yet, I have the feeling that this is changing now. It seems like a new wind is blowing fresh air into the system.'

Ellen: 'That's true. For example, we have signed a declaration with a number of other universities that proposes we no longer be allowed to count publications. And there's the document "Room for everyone's talent", in which national organisations make proposals for changes. And other areas too, like content and social impact, have to count as well; luckily, this is a conclusion that is widely embraced. We don't all have to be cast in the same mould anymore. We don't all have to be forced to jump through the same hoops. Academic culture won't be immediately altered by these changes, but you can already see the beginnings.' •

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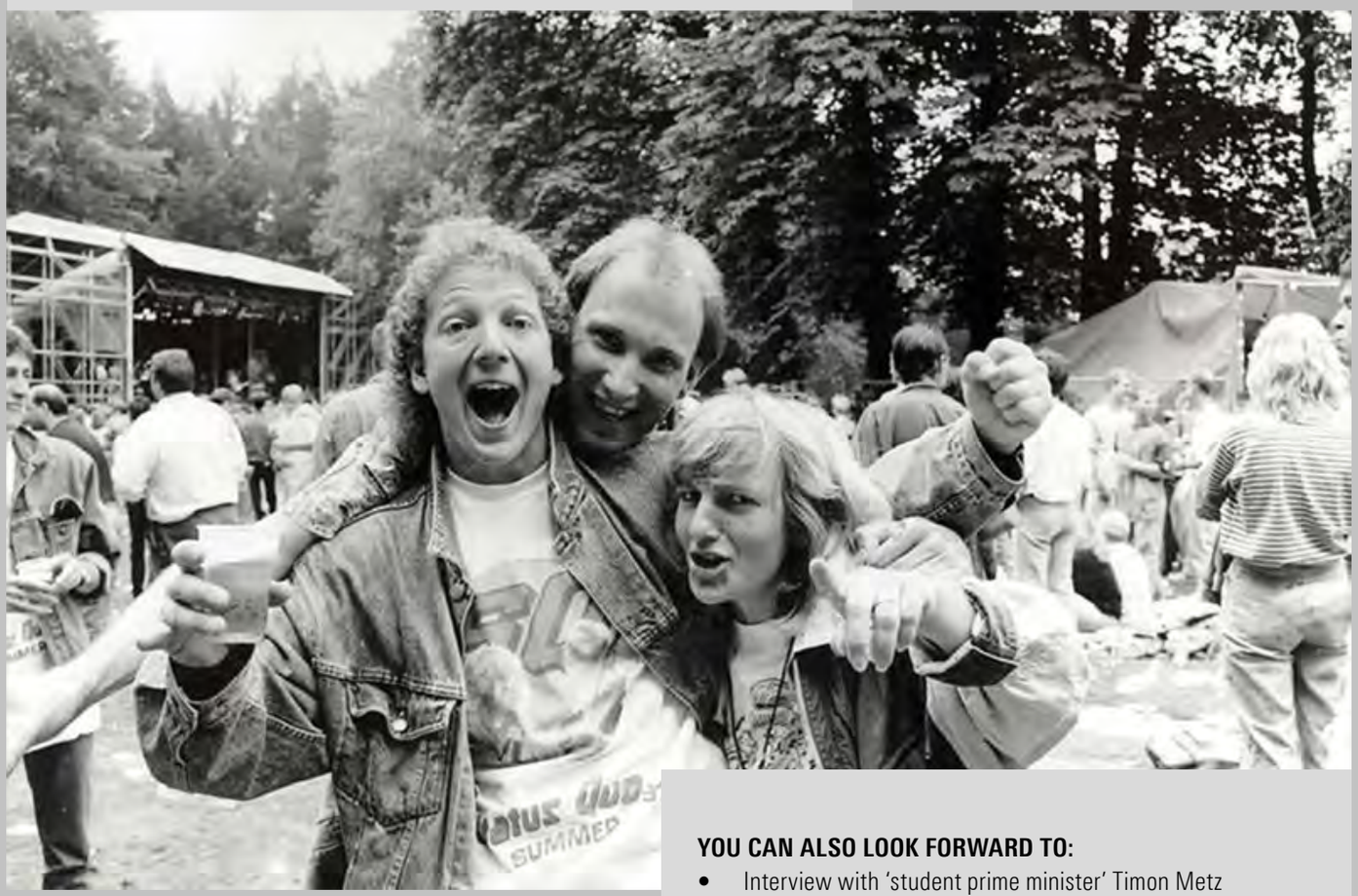

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